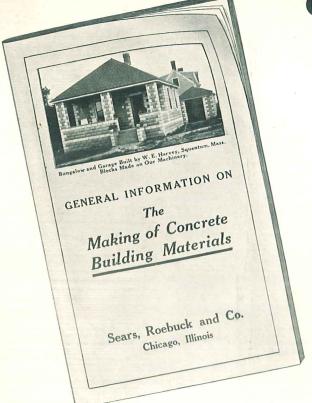
LEONERE L MACHINERY



SEARS, ROEBUCK AND CO.

No Experience Is Necessary to Operate Our Concrete Machinery



What Others Have Done You Can Do

THIS General Information Book which we furnish free with our concrete machinery tells you everything you need know to successfully make concrete products. Furthermore, our expert will cheerfully answer any questions you may want to ask in reference to this subject, so you may feel doubly sure of successfully making perfect products. The letters and pictures shown below and many others shown throughout this book demonstrate what inexperienced men have done.

We receive a great many orders from our customers who already have this General Information Book and we therefore furnish the book only when asked for, merely as a matter of economy. If you wish a copy please mention in your order that you would like a General Information Book on Concrete Product Manufacture and it will be included free of charge.

Our Wizard Block Machine Entirely Satisfactory

Coon Rapids, Iowa.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The Wizard Concrete Block Machine I got of you some time ago was entirely satisfactory. Enclosed you will find a photograph of a house I built from blocks I made with the Wizard Block Machine.

Yours truly,

H. BRUTSCHE.



This Nice Home Built by Amateurs

You Can Do as Well by Following Our "Easy to Follow" Directions.

Moscow, Idaho.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I am sending photograph of concrete block house made with your Wizard Concrete Block Machine. I am disappointed in the photograph, as it does not show the blocks as they are. The light was too bright in front of us when it was taken and shadows the blocks. This house was built by amateurs, as my sons and I had never before worked with cement in any way. We made our own blocks and also laid them up. We haven't our steps and walks in yet as we are farmers and have other work to do.

Yours respectfully,

H. W. MALLERY.



CONCRETE MACHINERY

TRIUMPH WIZARD and KNOX Block Machines

Wizard Automatic Tile Machines, Silo Block and Sill and Cap Machines, Concrete Brick Machines, Concrete Mixers (Batch and Continuous Types), Molds for Porch Columns, Piers, Rails, Balusters, Chimneys, Balls, Curbing, Sewer Pipe, Drain Tile and Fence Posts.

The House Shown on Cover Was Built of Products Made With Our Wizard Machinery by Mr. LOUIS C. CYR, of Lawrence, Mass.

Sears, Roebuck and Co. CHICAGO, ILL.



The concrete blocks for this beautiful home were made on the Wizard Concrete Block Machine.

An Explanation

As this book will be received by a great many who have had no experience in this profitable line of work, we wish to say that all statements and figures given throughout the book are compiled from information given us by experts in this line, and that special care has been taken to avoid extravagant claims of any sort. Those who have had some experience will see at once that we have underestimated rather than overestimated the capacity of our machines and the profits in the sale of the products.

A Profitable Line of Work.

The manufacture of concrete blocks, concrete brick, concrete fence posts, concrete tile and other concrete products is profitable, whether you manufacture them for your own use or for sale. If for your own use you can make them during your spare time, on rainy days or whenever it is impossible to look after your regular work, thus realizing a profit or gain which otherwise might be lost.

In manufacturing concrete products for sale there is a big profit, as the cost of materials used is low, and by using efficient accurate machinery, such as we furnish, your labor cost is also very low. The net cost of your finished products will enable you to sell them at a good profit to yourself and at lower prices than are usually asked for products of other material.

No Experience Needed.

For the benefit of those who have had no experience in handling concrete, we can assure them that experience is really unnecessary. To make concrete products, Portland cement, sand and gravel or crushed stone are mixed together in certain proportions, usually one part cement, two parts sand and four parts gravel or crushed stone. This mixture is then moistened and tamped in the mold or machine. The mold or machine is immediately opened and the product left standing where made and the mold removed, or the product is carried from the machine on a plate or board called a pallet. The product is sprinkled with water once or twice a day for several days to thoroughly harden or cure it, and is then put into use. Anyone can do this work, and if the suggestions and information given in our general information book are followed out, success will be assured from the start.

Our information book not only tells you how to mix concrete, but tells you how to test and select the best materials for the purpose, how to lay or set the various products, how to figure the cost of the various products, and many other items of interest to the man in this business.

In addition to all this printed information we have an expert in our office who will be glad to answer questions and give you any additional information required. Therefore, even though you have had no experience in concrete product manufacture, you need not hesitate to start.

Why You Should Use Concrete Products.

There are many reasons why concrete products should be used in preference to any other material, but we mention only a few of them here.

Cost. Usually the first thing considered when figuring on a building is the cost of it. Concrete will cost less than stone or brick, and in many localities less than frame construction. Even when lumber can be had at a comparatively low price, concrete will cost but very little more, and when repair and painting expense is figured, concrete is the cheapest when cost at the end of five years is considered.

Concrete construction, whether of block, brick or poured in forms, is fireproof. This is a strong feature, particularly in small towns where there is little or no fire protection. Fire insurance rates on a concrete building are much lower than on frame construction.

No repair or painting expense. Unlike any other type of construction, concrete improves with age and requires no painting and practically no repairs, even after being in use for several years.

There are many other features of advantage in favor of concrete, and we are sure anyone who will give the matter careful thought will readily see that concrete offers the best material there is for building and other purposes. If the very simple directions we furnish are followed, anyone can make perfect products right at the start.

To get the best results it is necessary to have perfect machines or molds. The machinery shown in this catalog will make perfect products and we offer it to you on the same basis as our other merchandise, that is, at a price which represents but one profit over and above the actual cost, there being no jobbers' profit or agents' commission added, as is usually the case with this class of machinery. Furthermore, we make shipment of every machine, mold or attachment with the understanding that we must satisfy you in every respect or you can return the machine or mold at our expense and every cent you paid for it, including freight charges, will be returned to you. Think what this means and bear in mind that we do exactly as we say. Remember, also, that we would not dare make a proposition of this kind if our goods would not stand the test.



The concrete blocks for this house were made on the Wizard Concrete Block Machine.

We Have a Complete Line

We Have a Complete Line

Look through this catalog carefully. You will find that we handle a very complete line of concrete machinery and can supply you with almost anything you want. The patterns of our face plates are made direct from cut stone, which has been prepared by expert stone cutters. See pages 8 and 9 and note carefully the many handsome designs which we can furnish. You can add these extra designs to your equipment one by one as your requirements grow. We can also furnish extra attachments for our block machines, which enable you to make practically any style or kind of block.

About Our Prices.

We sell the entire output of the largest cement machinery factory in the country, and by reason of this large output are able to soil a fail and accurately finished machines. We ship all machines direct from this big factory and therefore save all unnecessary freight and handly and accurately finished machiners. We ship all machines direct from this big factory and therefore save all unnecessary freight and handly have been achiever. As concrete machinery is hund by the man who have capled our filinstrations and have endeavored to meet our prices we quete.

About Our Illustrations.

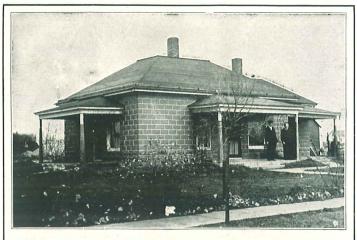
About Our Illustrations.

About Our lilustrations.

All illustrations in this catalog were made from actual photographs of the machinery sold by others from these copied. Naturally a concrete machine of light weight material will not stand the wear as well as a heavy mechanic, and if therefore will generally accurately accurately and the wear as well as a heavy mechanic and the treefore will are complete our machinery with any machine, and if therefore will are complete our machinery with any machine, and if therefore will are completed and sold in sacks of 56 pounds. Four secks are considered and sold in sacks of 56 pounds. Four secks are considered and contract of the machine of

Product	*Average Cost, Each	Average	Cubic Yard	Make in 10-
8x 8x16-In. Concrete Blocks 8x10x16-In. Concrete Blocks 8x12x16-In. Concrete Blocks	9c	\$0.15 .20 .24	72 53 44	200 to 250 190 to 230 175 to 225
Sill or Cap, 10 inches wide, 8 inches high, 5 feet long 16x16-In. Chimney Blocks.	48c 18c	1.00 .35	9¾ 28½	50 100
Porch Column Sections, 10 in. diameter, 12 in. high.		.25	50	125

Farmers! Build With Concrete Products



Home of Mr. Alfred Hendee, Panama, Neb., who is using our Wizard Block Machine. He is well pleased with our machinery and has built a number of houses of the products of his machinery, which are giving perfect satisfaction. Read his letter below.

Panama, Neb.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I bought two of your block machines and have built four cottages, but have only the picture of one at present, which I enclose. Two of these buildings are smooth face and two rock face. The rock face buildings are better looking than the smooth face one, which is the first one I built. I am living in this one and have been for three years. I have been to the Cement Users' Convention and I did not find any machine that was handier than the Wizard and I would not trade with any of them. Your face plates suit me and I haven't seen any that are better than the plates you furnish.

Yours truly,

ALFRED HENDEE.

Conservation Is the Rule Nowadays.

Build your barns, chicken houses, stables, outhouses and other farm buildings of a material that will last for ages, with other farm buildings of a material that will last for ages, with practically no expense of upkeep, no painting, no repairing, and best of all, no fire danger. All you need is Portland cement, sand and gravel or crushed stone. You no doubt have a sand or gravel pit on your farm or nearby and can get sand or gravel at a small expense. Cement can be had at a low cost. This is all you need to make congrate products on our magnetic state. This is all you need to make concrete products on our ma-The blocks and other products are easy to make and can be made on rainy days or in your spare time, when you have no other work to do. You can also make up concrete products to sell and in this way make your spare time bring you some return. The blocks can be easily laid up in the wall and will make substantial durable buildings and will make substantial, durable buildings.

No experience necessary to make blocks or other concrete products successfully. The directions in the information book which we furnish with our machines and molds explain everything so thoroughly that you can make perfect products even if you never mixed a shovelful of concrete before.

Fire Insurance Rates.

The fire insurance rates on frame farm buildings are high, as fire protection generally is not attainable, and when a fire does break out it usually destroys all buildings on the place. You can save from one-third to one-half in insurance rates on concrete buildings. Fire insurance seldom covers your complete loss; it surely will not cover the loss of time and labor to replace what was destroyed.

Protect yourself from danger of fire by building with fire-proof material. Concrete blocks will withstand enormous heat, and should a fire break out in a concrete block building it will be kept from spreading to other buildings. A hay or straw stack fire, which is quite common, is not liable to set fire to the contents of other buildings if they are built of concrete blocks. Furthermore, remember the saving of from one-third to one-half in insurance rates on a concrete block building over the rates for frame construction.

Build With Concrete Blocks and Save Money.

They are easily and quickly made, and by using our mortar gauges can be laid up in the wall without previous experience, a saving in time and expense over the method of pouring concrete in wood forms usually followed. A complete concrete block house will always have a neat, substantial appearance, with practically no expense for painting and repairing.

Concrete block buildings are cooler in summer and easier to heat in winter than frame houses. This is another big advantage to consider when deciding on the material to use for building.

Concrete block buildings add to the appearance of your place and will enable you to obtain a better price should you

ever decide to sell your farm. You will not be put to the expense of painting and repairing to keep up the appearance of the place and your outbuildings will be more sanitary.

Note carefully the letters and photographs reproduced throughout this book. Concrete blocks are being used for all purposes and by people who have never made blocks or used them before. Get a machine and make your own building products and build of a lasting fireproof material.



Concrete Block Houses Built by Kellogg of Columbia City, Ind. One of the Mr. Lewis



Where Mr. Kellogg Has Made More Than 14,000 Concrete Blocks.

Columbia City, Ind.

WIZARD Concrete Block Machine Cannot Be Beat

Sears, Roebuck and Co., Chicago, Ill.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I have built five houses with the Wizard Cement Block Machine I bought of you and must say it cannot be beat for speed, easy working and perfect blocks. From my machine I get 200 blocks in eight hours with two men, and I have made with one man at the rate of thirty-two an hour, or I can make a block that is rock face and face it in thirty-five seconds. Block houses are dry and cool in summer and warm in winter, if the blocks are made right. The design of your machine cannot be beat and the machine in every respect is superior to any I have ever seen and a great deal cheaper and as for speed there is none faster. I will enclose photographs of some of my work that you may use as you see fit. These are the only kind I have now, but may have some more later.

Yours truly,

LEWIS KELLOGG.

Makes Two Hundred Blocks in Eight Hours

Concrete Blocks Are Adapted for All Purposes

Products of our concrete machinery are being used for residences, churches, factories, shops, stores and farm buildings; in fact, they are adapted for any kind of building, large or small.

Read the letters published on this and other pages throughout this catalog. Note the illustrations of what has actually been accomplished by our customers, many of whom never made or laid a piece of concrete work before they tried their hand at it by using our machinery and following our directions. Buy Sears, Roebuck and Co.'s Concrete Machinery to get satisfactory equipment and save money.

The illustration at the right shows machine shop of the Ready Manufacturing Co., Troy, New York. Read their letter below. You will notice that the man employed to do the work never before attempted anything of this kind, but was successful. Be sure to read this letter.

Never Saw a Concrete Block Before, Yet He Was Successful in Building

Troy, N. Y.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:-We are sending you under separate cover by same mail, three photographs of our new machine shop that was built of concrete blocks made on your Wizard machine and molds; this building was the work of practically one man, who never saw a concrete block before he undertook this work and who made all the blocks, window caps, window sills, chimney blocks and special blocks, and laid the whole building.

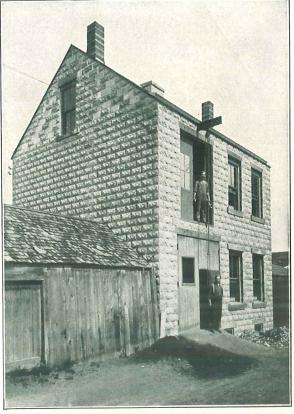
The walls in the foundation are 16 inches thick and laid of 8x8x16-inch blocks, some solid and some cored; the main walls are 8x10x16-inch blocks up to the eaves and the gables are 8x8x16-inch blocks. The gravel was mostly taken from the spot upon which the building stands and was all washed and sorted or sifted into

Of course this way of doing it made a long job, taking about eighteen months for the work, further hampered by the lack of room in which to store and cure the blocks. They were laid with pure cement mortar and appear to be like one solid stone.

The windows complete were bought of you and reached here with but one broken pane.

The smallest of the three photographs was taken with one of your cameras and certainly very sharp. Hope these photographs will be of some service to you. Yours very truly,

> READY MFG. CO., Per W. H. Read, Mgr.



Machine Shop of the Ready Mfg. Co., Troy, New York.

The blocks for this shop were made and laid by a man who never saw concrete block before using our machinery. Read the Ready Mfg. Co.'s letter on this page. Compare the fire and wear resisting qualities of the solid looking concrete building with the frame shed alongside of it. It will pay you to build of concrete.



Concrete Blocks for Churches

The view to the left shows church designed and built by Curt Obst-Odel, an architect and builder in Lowell, Mass., from products of machinery bought from us. The use of concrete blocks for church construction is better than frame or brick construction and costs no more in the end. No matter what kind of a house or building you want to put up, you will make no mistake if you select concrete blocks for your exterior construction. They are cheaper than brick or stone and better than wood. Blocks are easily laid, saving a great deal in the cost of mason work. Read what the architect and builder of this fine church has to say:

Sears, Roebuck and Co., Chicago, Ill.

Dear Sirs:—I enclose photograph of the concrete church. I used the Wizard and Triumph block making outfit purchased of your firm. Everything so far bought from you in the line of machinery, mill work and art glass windows, has been very satisfactory. Wishing your firm success, I am,

Yours very truly, CURT OBST-ODEL.

Think it over. If you have any building to do it will pay you to use concrete blocks, and we can furnish you with the machinery for making them for less money than you can get them anywhere else. Remember, you are fully protected by our guarantee and money back if not satisfied offer, on inside back



A Substantial Store Building.

The store building shown above was built by W. J. Stolzer of Forest City, Ark., for Ed. Berry & Son, Madison, Ark. It measures 26x112 feets by 34 feet high and all blocks were made on our Wizard machine. Mr. Stolzer wrote us a reference to the Wizard Concrete Block Melhine when he sent this picture as follows: "An well pleased with the Wizard machine. Can make more different designs than with any other machine."

Stucco Plaster on Concrete Blocks

Practical Suggestions for Beautifying Concrete Buildings.

If you object to the appearance of concrete block buildings, stucco plaster enables you to have all the benefits of concrete block construction and the appearance of high priced construction without the high price.

If you build a concrete block house you have you choice of an almost unlimited variety of designs, color schemes, and other means of decoration. To give you some idea of these we make a few practical suggestions on the subject.

Stucco plaster can be applied directly to the concrete block. This is past the experimental stage and is a proven success. Our book, entitled "General Information on the Making of Concrete Building Materials," which we furnish on request, contains all the information and directions necessary for accomplishing the best results with stucco plaster on concrete blocks.

Many who have built dwellings of concrete blocks, and then applied stucco plaster direct to the blocks, have met with perfect success. This class of construction and finish is used extensively in many of the high class residence suburbs of Chicago and other large cities, and although the cost is not great, the rental or sale price of such a building is very high.

Formerly stucco plaster was applied on wood or metal laths, but, as every builder knows, extra coats of plaster were required in order to make it strong enough to prevent cracking and disfiguring the building; when applied directly on the concrete block all that is required is a finishing coat, as the block in itself is strong enough to prevent any sagging. It also gives

the building a massive or monolithic appearance. There is no possibility whatever of the walls cracking or being disfigured. It gives you an absolutely perfect, strong and substantial dwelling.

This method affords almost unlimited possibilities for beautifying buildings. You can color or tint the plaster any shade desired by using mineral colors. You can apply it in panels to different parts of the building, making a very artistic design. You can make the body one color and the trimmings, such as the coping, caps, sills, porch materials, corners, etc., a different color, giving the effect of a painted building but without the expense

of painting. Mineral colors in concrete are everlasting. In addition you can make your building perfectly waterproof by this method.

A concrete block building finished with stucco plaster on the blocks, according to our method, is practically everlasting and requires little, if any, repairing. It is permanent in every sense of the word, both in material and design. When you consider this fact you can see what a great saving such a building will make for you in the long run.

Stucco work costs but a trifle on concrete buildings. The block which is used for the body in such buildings is the ordinary rough block, having one mixture of material throughout. The face of the block is rough and of same consistency as the remainder. Back of block is scratched with a sharp instrument or nail, forming a solid anchor place for the stucco coat. Our book, "General Information on the Making of Concrete Building Materials," tells all about it. This book is furnished without charge if asked for. You save the time required to mix and apply the facing in the machine, also the cost of the extra quantity of cement required for facing. It will cost on an average about 36 cents a square yard for the finishing coat of stucco plaster, which is the only coat required for stucco work on a concrete block building.

> Stucco plaster on a concrete block building gives it the finished appearance of expensive reinforced concrete construction, and saves you the cost of expensive reinforcing, forms and labor. Block construction for all ordinary buildings is as suitable as reinforced concrete and the work can be done by any laborer.

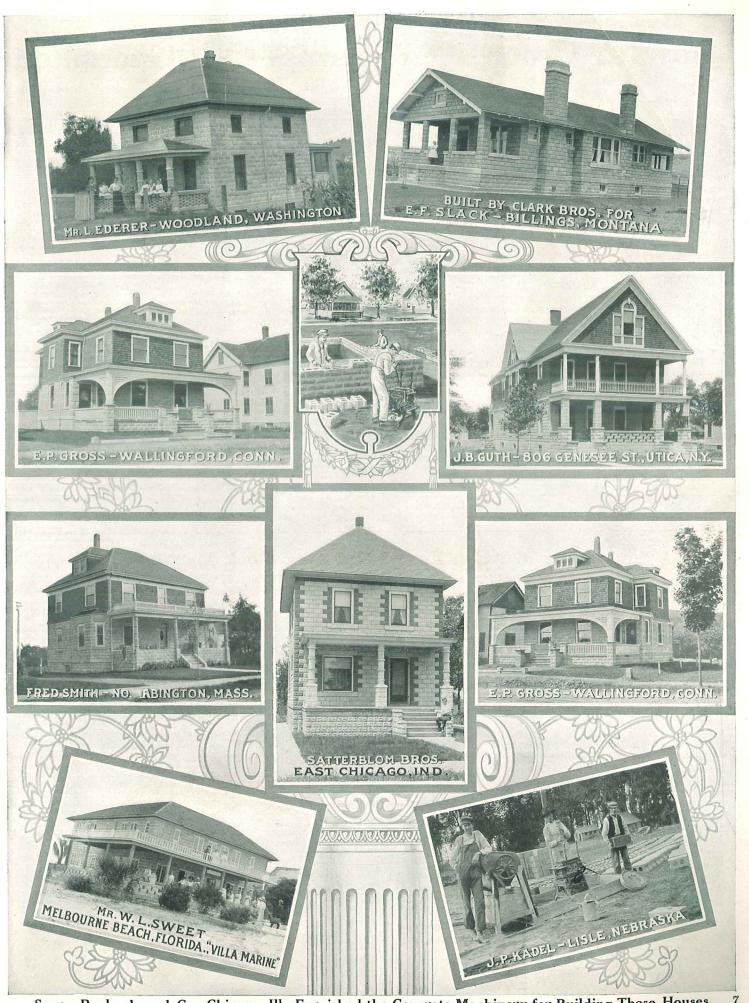
> You can build a house of concrete blocks that will be as practical for all dwelling purposes as any other material, and by following out the suggestions we make the finish and appearance will be as handsome as you can make with any other building material.



An excellent example of stucco plaster on concrete block, with trimmings, such as corners, foundation, porch rail, lattice, etc., of rock face concrete blocks. The belt course is of a rope face design concrete block. The structure is a







Sears, Roebuck and Co., Chicago, Ill., Furnished the Concrete Machinery for Building These Houses.

How to Order-Our Terms-Our Guarantee

How to Order.

Use our regular order blank mailed with this catalog, or, if you have misplaced it, use any piece of plain paper. Be sure to sign your full name and address plainly so there will be no possible chance for us to make a mistake. If your shipping point is different from your postoffice be sure to give shipping point as well as the postoffice. Give the full catalog number of the machine or mold you wish to buy and send your money by postoffice money order, express money order, bank draft, or currency in a registered letter. If you have a checking account at a bank you may send us your personal check if you find it more convenient. Be sure that your address appears on the envelope in the upper left hand corner and that it is properly addressed to us.

Our Terms.

Cash in full with order, all goods being guaranteed to give satisfaction, with trial and return privilege. If you prefer we will ship C. O. D., provided you will send us a deposit of at least one-fourth the amount of your order as a guarantee of good faith, the balance to be paid to an express company or bank and sent to us by them. We do not recommend this method because there is an extra charge of 25 cents to \$1.50 for collecting the money and sending it to us. This can be saved by sending cash in full. We therefore urge you to send cash in full with your order, as you run no risk by so doing.

Trial Allowed.

All machinery is shipped with the understanding that you an give it a thorough trial for thirty days, and if you are not perfectly satisfied you may send back the goods to us at our expense and we will return what you paid us for them, together with any transportation charges, so that you will not be out one penny.

Our Guarantee.

We guarantee our machinery to be perfect in material and workmanship and to give satisfaction. We agree to replace

without additional charge to the purchaser any machine or part of machine that gives out on account of defect in material or construction. You certainly cannot afford to buy a machine elsewhere when you can purchase machinery at the low price quoted in this book and under the conditions outlined here and on inside back cover page.

Repairs.

We furnish repairs without charge if they are made necessary on account of defect in material or workmanship or breakage in shipping. When required to replace parts broken by natural wear or tear or by accident we furnish them at small cost. We will be able to furnish you with repairs any time in the future, so if in years to come you should break your machine you will not have to discard it and get a new one on account of not being able to get repairs.

Directions.

We furnish complete directions for operating every machine or mold, so that even if you have had no previous experience you will be able to understand and operate it thoroughly and turn out the best of products on it.

General Information.

We also supply a General Information Book which tells you all about how to select and test the materials for concrete work; how to cure the products, and in addition gives a great deal of valuable advice in general on the concrete business. It is a book you would pay for willingly if you looked it over in a store. We furnish it free to help you in making concrete materials successfully. Ask for it when you place your order if you wish a copy.

Expert Service.

If any questions should arise that you do not fully understand, we have an expert to give you any needed information. If any thing is not clear to you, you are at perfect liberty to write us and we will see that you get proper attention and the information you need. We are ready at all times to help you in carefuling participant to the appearance product business. in anything pertaining to the concrete product business.

Designs We Can Furnish for Our Block Machines

The illustrations below and on the following pages were made from actual photographs of blocks made on our Wizard Machine. The face plates for our Knox and Triumph Block Machines and our porch molds will make products with face just as handsome. We show return corner blocks for the purpose of illustration, but to make return blocks you must have end doors, as shown in the price list of extras, for the particular size and kind of a machine you want the parts to fit. Most designs are reversible, so but one end door is required for making right or left corners. Where design is not reversible both end doors are required. End doors are priced separately and are not included with the face plates unless ordered and price allowed. Right and left are always determined when standing in front of the machine, ready to operate it. As blocks are delivered with back to the operator a right hand end door makes a return corner which is on the left when facing the block.

Be sure to order extra plates from price list of parts for your machine and tell us what machine the plates are for.

Face plates for fractional blocks can be furnished in various divisions as described below, unless otherwise specified.

Division Style A-Divided to make one half and two quarter blocks.

Division Style B-Divided to make two half blocks.

Division Style C-Divided to make one quarter and one three-quarter blocks.

Division Style D-16-inch plate divided to make one 2-inch,

one 6-inch and one 8-inch block; 24-inch plate in Division D is divided to make one 8-inch block and one 16-inch block.

Division Style E-Divided to make full size block with half of face smooth for inside corners.

Division Style F-Full size plate with special division line for outside angle bay window blocks.



Design No. 1. Shallow Rock Face.



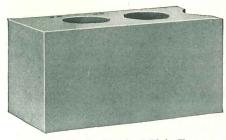
Design No. 2. Medium Rock Face.



Design No. 3. Heavy Rock Face.

These three designs are reversible, so only one end door is required for either right or left return corner. Design 1 End Door can be used with Design 2 and Design 2 End Door with Design 3.

Designs We Furnish for Our Block Machines See Instructions for Ordering on Page 8.



Design No. 4. Standard Plain Face. Can be furnished in all Divisions. But one end door needed.



Design No. 7. Rock Face With 1½-Inch Tooled Edge.

16-inch plate not made in Divisions C and D. Division F not made in any size. But one end door required.



Design No. 10. Broken Ashler Face.

Block made with groove between block sections for beading or tuck pointing when wall is completed. For fractional blocks order desired division in Design No. 2 which matches this design perfectly. For right hand corner block use Design No. 2 end door. For left hand corner special end door is required.







Design No. 5. Cobblestone Face.

A fine "above ground" foundation block. 16-inch plate not made in Division D. Division F not made in any size. But one end door required.



Design No. 8. Bushhammer Face With 1½-Inch Tooled Edge. 16-inch plate not made in Divisions C and D. Division F not made in any size. But one end door required.



Design No. 17. Broken Ashler Face.

Besign No. 17. Broken Ashler Face.

Block made with bead between sections.

Does not require tuck pointing when laid up
in wall. For fractional blocks order desired
division in Design No. 2 which matches this
design perfectly. For right hand corner block
use Design No. 2 end door. For left hand
corner special end door is required.



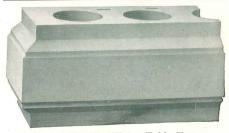




Design No. 6. Panel Face. 16-inch plate not made in Division D. But one end door required.



Design No. 9. Horizontal Tooled Edge. But one end door required.



Design No. 12. Water Table Face.

No fractional face plate needed for fractional blocks in this design. End door furnished is not fastened in like other doors but sets in place and is supported by any plain end door in machine. End door is also used as a dividing plate for making fractional blocks of any length. But one end door needed.





Triumph Block Making Outfits

This outfit includes our Triumph Block Machine which uses wood pallets and makes blocks face down. We recommend this outfit to the man who wants to make blocks for his own use. In this connection, however, we ask you to read the description of our Wizard Block Outfit shown on page 12. The Wizard Block Machine is really the best machine to buy as it has many advantages over the Triumph. It has automatic core movement which enables you to release a block and lock the machine for another in less than half the time it takes on the Triumph. Your output is therefore practically doubled by using a Wizard Block Machine; it requires less labor to operate, which is a very desirable feature; it is a more complete machine in every way and we especially recommend it to those who require a big capacity machine. However, if you want a low priced machine and are not particular about big capacity and automatic features we are sure the Triumph will please you. It will make a block perfect in shape and true to size. Blocks are made face down which is the proper way and are carried from the machine on a wood pallet. These pallets are made from common lumber with a cleat nailed at each end, and can be made by anyone who can handle a saw and hammer.

The face down feature enables you to make the face of a better material than the backing of the block, improving the appearance and quality.

Vertical Core Movement.

The core withdraws vertically, or after you turn the block. This makes it possible for you to use a very wet mixture, which makes a better block than a dry mixture. There is no chance for the block to collapse while turning, as is the case with machine in which the core is withdrawn first and the block then turned. While tamping the block the core is securely held in position by a simple latching device that is quickly released or locked.

Frame or Stand.

Made of heavy castings securely connected together by braces, which prevent all side play.

The Flask or Mold Box.

Easily locked or opened for making and releasing the block. The back wall is securely attached to the rockers. The face plate is also attached to the rockers, the end doors being pivoted or hinged to the ends of the face plate. The front wall is attached to the front of the rockers by steel pivot pins. The face plate can be changed very easily and quickly, being attached to the rocker by means of bolts. The end doors can also be changed very quickly, the lugs on the doors fitting in the ears on the end of the face plates. The flask is locked up by simple latches attached to the end doors.

Capacity.

100 to 125 blocks per day for two men who mix the concrete, operate the machine and take care of the product.

Operation.

To release the finished block the entire flask is turned over, the core withdrawn by pulling straight up, and the latches on end doors are released and the flask opened and turned back, which leaves the block entirely free, ready to be carried away on its pallet. To prepare the flask for the next block, simply insert another pallet, raise front wall to position and lock the latches.

Designs.

We furnish the machine equipped with face plate and end doors for making standard rock face blocks. If so stated in your order we will furnish you with any one design shown on pages 8 and 9, instead of rock design, or you can purchase extra face plates of any design at prices shown on page 11. All Triumph Block Outfits are shipped from factory in CENTRAL OHIO.

Prices of Triumph Concrete Block Outfits.

Triumph Concrete Block Outfit, to make block 8x8x16 inches. Shipping Price. Triumph Concrete Block Outfit, to make block 8x10x16 inches. Shipping Price..... Triumph Concrete Block Outfit, to make block 8x12x16 inches. Shipping Price.

95 Triumph Block Outfits for Use on Wood Bench



Your Choice of Single or

Double Core.

This shows machine for making blocks with two small core openings in stead of one big one. Either style block requires the same amount of material as the cores occupy one-third the total contents of block. We always send the single core style unless you plainly state in your order that you want this double core style.

No. 44B5720 weight, 155 pounds. No. 44B5730 weight, 200 pounds.

Many of our customers have asked for a block machine that could be used on a bench, making a compact outfit that could be stored away in small space when not in use. We have designed a special hinged lug for the mold box of our Triumph Block Machine, which enables us to do away with the stand and thus make a very low price block machine that can be used on a wood bench of any kind, so long as it is strong enough to stand the tamping of the block. This machine is exactly like the mold box on the Triumph machine illustrated above and includes the same equipment of extras as shown to the right. The machine on iron stand, described above, is more convenient to use and is recommended in preference to this machine. However, you will find this bench outfit satisfactory if you have only occasional use for a block machine. Our prices are exceptionally low considering the equipment furnished and efficiency of the machine. Shipped from factory in CENTRAL OHIO.

No. 44B5716 weight, 130 pounds. No. 44B5717 weight, 140 pounds. No. 44B5718 weight, 155 pounds.

Triumph Block Outfit, without stand, for 8x8x16-inch blocks. Shipping Price..... 13.75

You Can Make All These Blocks With the Triumph Block Outfit.



Face Regular Whole



Rock Face Solid Block



Rock Face Corner Block.



filling of the mold one half block and two r blocks.

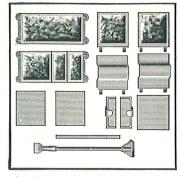


Rock Face Block with open-ing for joist.



Rock Face Gable Block

These Parts Are Furnished With Every Triumph Block Outfit.



One Rock Face Plate for whole blocks, One Rock Face Plate for half and quarter blocks.

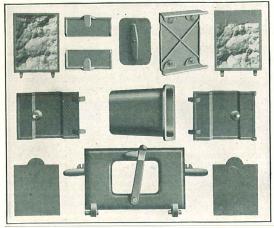
Two Rock End Doors.
Two Core End Doors.
Two Dividing Plates.
One Gable Block Dividing Plate for making gable blocks.

gable blocks.
Two Joist Block Attachments for making opening in block for floor joists.
Plugs for making solid blocks.
One Striker.
One Double End Tamper.
One Sample Wood Pallet.

..... 15.25

These enable you to make the blocks for any ordinary building. We can furnish ad-ditional parts and attachments as shown on next page.

Specialties for the Triumph Block Machine



On this page we describe additional parts and attachments for the Triumph Block Machine. These are provided for the convenience of those who want to make a more complete line of products than can be made on the regular outfit.

Parts to Change Machine Size.

Should you desire to make another size of block on your Triumph Block Machine you can do so at small additional cost for a fiask attachment of the proper size. Where there is a big demand for more than one size of block it is always advisable to purchase an adjustable block machine, such as the Knox Adjustable Machines described on pages 16 and 17, or to have a block machine for each size of block you want to make. In many cases, however, it would not be profitable to do this and in such cases these attachments will answer the purpose provided you already have a Triumph Block Machine. The attachment consists of a back wall with core, sample wood pallet, two core end doors and two rock (or other design) end doors, two dividing plates, two joist block attachments and core plug. The \$x10x16-inch and \$x12x16-inch attachments include a special end door and plate for making blocks with \$x8 return end for turning corners. This breaks joints exactly in the center. Please do not order the flask attachment unless you have a Triumph Block Machine, because the attachment is not a complete mold and cannot be used to make blocks. State whether single or double core style is desired.

No. 44B5757 Flask Attachment for \$x8x16-Inch Triumph Block Machine.

No. 44B5757 Flask Attachment for 8x8x16-Inch Triumph Block Machine. Shipping weight, 110 pounds. Price. \$5.45

No. 44B5758 Flask Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 135 pounds. Price. 6.45 No. 44B5759 Flask Attachment for 8x12x16-Inch Triumph Block Machine. Shipping weight, 165 pounds. Price.

Face Plates for the Triumph Block Machine.





Whole Block Plate.

Plates can be used in any Triumph Block Machine of any size. See pages 8 and 9 for the different designs we can furnish.

Whole Block Plates are used for making regular 16-inch blocks. If block is to be used on a corner, a return end door must be ordered separately as listed below.

Circle Block Plates are curved plates in 16-inch length and make a block with curved face, conforming to circles of 12 feet, 16 feet, 20 feet or 24 feet in diameter. We always furnish plate for 16-foot circle unless ordered differently. These blocks are used for circular bay windows, towers or any circular wall which does not have to withstand a bursting strain, such as tanks or silos. For building tanks and silos which must be reinforced see our Silo Block Machines on page 18.

Fractional Face Plates are used to make less than a full 16-inch block and can be furnished with dividing lines for fractional blocks as follows:

Division A—Divided to make two 8-inch blocks.

This plate is illustrated

Division E—Divided to make two 8-inch blocks.

Division C—Divided to make one 4-inch block and one 12-inch block.

Division E—Divided to make full length block with one-half of face smooth, for blocks to be used in inside corners.

We always furnish plate divided to make one half block and two quarter blocks un-less you order otherwise.

All plates weigh about 15 pounds and are shipped from factory in CENTRAL OHIO.



End Doors for Triumph Block Machine.



To make blocks for corner use it is necessary to have end doors that match the face plates. In many cases but one door is needed, as the blocks can be turned either way for right or left hand corners. Some designs are not reversible, however, and for these you require both right and left ends. Right and left are determined by facing the block machine in working position. Full information in regard to ends required for each design is given on pages 8 and 9.

Be sure to tell us what size and design you want when you write your order. All end doors are shipped from factory in CENTRAL OHIO.

Four-Inch Course Block Attachments.



The 4-Inch Course Block Attachment is used for making blocks 4 inches high instead of the regular 8 inches. Two of these blocks are made with one filling of the mold box. The 4-inch blocks are used for lattice and porch work, and for belt courses around a building to break up the monotony of one style or size of block. The attachment consists of a face plate for making two whole blocks, one face plate for making two half and four quarter blocks, one pair core end doors, one return end door to match the face plate, wo dividing pallets and a set of four dividing pallets for making half and quarter to look the day. On dividing pallet for every two course blocks rest blocks rest blocks rest of the enough additional pallets for a day's output. This attachment is complete for making the regular blocks and return corner blocks in whole, half and quarter sizes.

We can furnish 4-Inch Course Block Attachments only in the following designs:
We can furnish 4-Inch Course Block Attachments only in the following designs:
CENTRAL OHIO.

No. 4485726 Course Block Attachment for 8x8x16-Inch Triumph Block Machine. Shipping weight, 46 pounds. Price.

No. 4485737 Course Block Price.

No. 4485737 Course Block Attachment for 8x8x16-Inch Triumph Block Machine. Shipping weight, 59 pounds.

Price.

No. 4485746 Course Block Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 59 pounds.

Price.

No. 4485747 Course Block Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 59 pounds.

Price.

No. 4485747 Course Block Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 59 pounds.

Price.

No. 4485747 Course Block Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 50 pounds.

Price.

No. 4485747 Course Block Pallet for 8x10x16-Inch Triumph Block Machine. Shipping weight, 50 pounds.

Price.

No. 4485747 Course Block Attachment for 8x10x16-Inch Triumph Block Machine. Shipping weight, 50 pounds.

Price.

No. 4485747 Course Block Pallet for 8x10x16-Inch Triumph Block Machine. Shippi



Bay Window Attachments.







To make blocks for bay window construction you require a special attachment as illustrated. The attachment consists of a special face plate and a special angle plate for making outside corner blocks. The angle plate is adjustable to any angle commonly used for bay windows. Nearly all bay windows are built at an angle of 45 degrees, and the attachment is therefore set for this angle. Inside corner blocks are made by using the regular half and quarter plates in the machine, in connection with the gable dividing plate, making block as shown. Be sure to state design wanted and order the proper size. Shipped from factory in CENTRAL OHIO. for bay windows. Nearly all bay windows are built at an angle of 45 degrees, and the attachment is therefore set for this angle. Inside corner blocks are made by using the plate, making block as shown. Be sure to state design wanted and order the proper size.

Shipped from factory in CENTRAL OHIO.

Extra Attachments for Wizard Block Machine

Bay Window Attachments







To make blocks for bay window construction you require a special attachment as illustrated. The attachment consists of a special face plate and a special angle plate for making outside corner blocks, and an angle plate for inside corner blocks. The angle plate is adjustable to any angle commonly used for bay windows. Be sure to state design wanted and order the proper size. Shipped from factory in CENTRAL OHIO.

Price List:

No. 44B5533 Bay Window Attachment for 8x8x16-Inch Wizard Block Machine. Shipping weight, 35 pounds. Price......\$3.50 No. 44B5543 Bay Window Attachment for 8x9x16-Inch Wizard Block Machine. Shipping weight, 40 pounds. Price......\$3.75

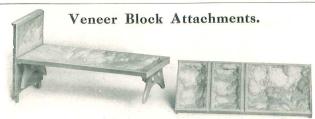
No. 44B5553 Bay Window Attachment for 8x10x16-Inch Wizard Block Machine. Shipping weight, 45 pounds. Price.....\$3.95 No. 44B5563 Bay Window Attachment for 8x12x16-Inch Wizard Block Machine. Shipping weight, 50 pounds. Price......\$4.35

Four-Inch Course Block Attachments.



The 4-Inch Course Block Attachment is used for making blocks 4 inches high instead of the regular 8 inches. Two of these blocks are made with one filling of the mold box. The 4-inch blocks are used for lattice and porch work, and for belt courses around a building to break up the monotony of one style or size of block. The attachment consists of a face plate for making two whole blocks, one face plate for making two half and four quarter blocks, one pair core end doors, one return end door to match the face plate, two dividing pallets and as et of four dividing plates for making half and quarter blocks. It is necessary to have one dividing pallet for every two course blocks you intend to make in a day. One of the course blocks rests on the regular pallet in the machine and the other on the dividing pallets. Be sure to order enough additional pallets for a day's output. This attachment is complete for making the regular blocks and return corner blocks in whole, half and quarter sizes. whole, half and quarter sizes.

We can furnish 4-Inch Course Block Attachments only in the following designs: Plain, rock, panel and tooled. Be sure to tell us what design you want and order the correct size. Shipped from factory in CENTRAL OHIO.







Silo Block Attachment.

Our Wizard Block Machine can be used for making blocks with curved face and back that will form a circular wall suitable for silos, tanks or any structure with circular shaped walls. To make these blocks the special silo attachment illustrated is needed.

This attachment consists of a curved face plate, a pair of adjustable end plates to be used in connection with the plain end doors on the machine for regular building blocks, a yoke to hook over the back wall for forming groove in top of block, and a special strike off tool for striking off the back wall with a curve to match the face plate. When laying the blocks made with this attachment a No. 8 wire is laid in the groove formed in the top of the block and the groove filled with a rock cement mortar. The blocks are also laid up with a rich cement mortar to provide the necessary strength to withstand the strain brought against it by the settling of the silage. This attachment is suitable only for the 8x8x16-Inch Wizard Block Machine.

Silo blocks are made on the same pallets used for building blocks. Shipped from factory in CENTRAL OHIO. Shipping weight, 40 pounds.

No. 44B5539 Wizard Silo Block Attachment for Wizard Block Machine. Price.....\$5.48

Concrete Blocks for Corn Cribs



Back view of machine showing method of holding cores in place.

The special blocks made in this machine are designed particularly for corn crib construction. The blocks are laid with the large opening outside, the sloping side of the opening down. This provides ventilation, prevents rain from the construction of the construction beating in and drains all water to the outside. Each machine is furnished complete, ready to use, and with necessary equipment for making whole and half size blocks.

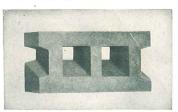
The blocks measure 8x8x16 inches, with 1/4-inch mortar joint. The openings measure 4 inches by 4 inches on the outside, tapering to 334x2% inches on the inside. The blocks are made with the face to the side and are delivered face up. The bottom plate of the mold box is provided with a ridge, which molds a groove in the top of the block in which a reinforcing rod can be placed to provide for any internal strain that may be brought to bear on the walls. The mold box is securely held together by two simple latches which are easily released for removing block from machine.

For the foundation these same blocks can be used, laying them in the wall with the openings up and down instead of horizontally. A corn crib built of these blocks, and with a

method of holding cores in place. concrete floor, will be everlasting and means freedom from frame crib.

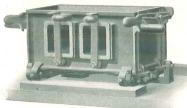
rats and mice which usually nest under the old type of unsanitary wooden crib. Shipped from factory in CENTRAL OHIO.

No. 44B5615 Corn Crib Block Machine, complete with stand. Shipping weight, 130 pounds. Price..................\$11.85



This shows the style of block made in the Triumph Corn Crib Block Machine and Corn Crib Block Flask Attachment. The openings allow proper ventilation and at the same time the depth of opening and slop-ing lower surface is such that no rain can enter in ordinary showers. In fact a beating or driving rain will have to be more severe to enter the openings in this block than to enter the openings in an ordinary frame crib.

Corn Crib Block Machine Without Stand.



This machine is made up like the machine or stand illustrated above, but is provided with a pair of brackets so it can be fastened to a plank and used on the ground or on a wood bench.

The complete machine on stand is more conven-

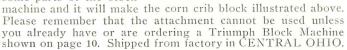
ient, although this outfit will answer the purpose if you wish low priced machine. Shipped from factory in CENTRAL

No. 44B5616 Corn Crib Block Machine, without stand. Shipping weight, 85 pounds. Price......\$9.45

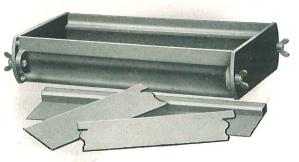
Corn Crib Block Attachment.

To Be Used on Our Triumph Block Machine.

If you have one of our Triumph Building Block Machines this attachment can be placed on it in connection with some parts of the block

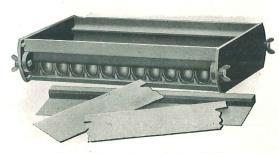


No. 44B5617 Corn Crib Block Attachment. Shipping ight, 65 pounds. Price.......................\$4.95 weight, 65 pounds.



Coping Molds

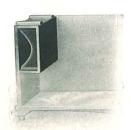
Finish the Top of Your Block Walls With an Ornamental



Plain Design Coping Mold.

Egg and Dart Design Coping Mold.

These molds make a coping stone that can be used to good advantage on every concrete wall. Each design shown will make stones 2 feet long, 5 inches thick, 10 inches wide at bottom and 11¾ inches wide at top; at prices quoted we furnish complete outfit as described. Both 24-inch side plates of these molds are alike so stones with ornamental front and back can be made, which is a very desirable feature when cap stone for a concrete block fence is desired. If stone is to be used as coping on a flat roof building so only one ornamental face is required, the long filler plate shown is inserted against the back plate. To turn corners the dividing plate is placed diagonally across one corner, making a stone with mitered end. Miter plates are furnished to make miter ends on stones where one or both sides are ornamental. We especially recommend the Egg and Dart design. Shipped from factory in CENTRAL OHIO. Shipping weight, 65 pounds.



Window Jamb Block Attachment.

For Any of Our Block Machines.

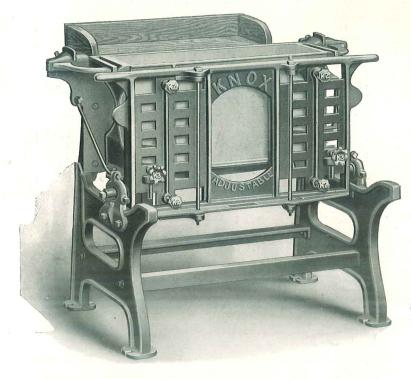
This attachment is hung over a plain end door in the machine and enables you to make a block with opening as shown in illustration at the right, which is just the proper size to hold a stock window frame for concrete block buildings. To use this attachment you must have a plain end door for your machine, so be sure to order one unless you already have it. The offset measures 3¼ inches from the face of the block and the attachment is 8 inches wide, so be sure to order the proper size for your block machine. Shipped from factory in CENTRAL OFFICE. wide, so be sure t CENTRAL OHIO.



No. 44B5606 8-Inch Jamb Block Attachment for locks 8 inches thick. Shipping weight, 8 pounds.

Knox Adjustable Block Making Outfits

Outfits Three Sizes



AND UP

This shows machine adjusted for blocks 8 inches high, 12 inches thick and 24 inches long.

The Knox Adjustable Block Machine is an exceedingly simple, easy working machine than can be quickly adjusted to make blocks up to 24 inches in length and in widths of 4, 6, 8, 10 and 12 inches, all 8 inches high.

Quick, simple adjustment for any size block is provided on the Knox Adjustable Block Machine. Referring to illustration above you will notice four vertical rows of five rectangular holes each. These holes are acurately spaced to hold the brackets on which the face plate is mounted.

Capacity.

The Knox Adjustable Block Machine is so built that the harder you tamp the tighter the mold box holds together. This simplicity makes it a quick working machine, so that two men under ordinary conditions can easily make up to 200 8x8x16-inch blocks per day and nearly as many of the larger sizes. We have had reports from some of our customers who have done even better than this.

Uses Wood or Iron Pallets.

Wood pallets have no core openings and on this account will not warp or split readily. The part of the machine on which the pallet rests is adjustable for pallets of variable thickness, so the pallets need only be made nearly like the sample furnished with each outfit and they can be used. This makes it possible for anyone to make the pallets from practically any kind of lumber and enables you to keep the pallet tight up against meld box.

As many block makers prefer to use iron pallets the Knox Adjustable Block Machine arranged to use iron pallets also, which we can furnish at a reasonable price. The rished blocks are taken from the machine on the pallet without using a carrier of any nol. Pallets 24 inches long can be used for blocks of any length, making it unnecessary provide a supply of pallets for each size of block.

Adjustment for Length.

The face plate controls the length of the block. The brackets are securely held in position by means of a wedge which is tightened and locked by hand wheel screws marked K3 in the illustration, which shows position of brackets set for 24-inch face plate. Moving the right hand bracket into the hole directly to the left set he machine for 29-inch face plates. Moving the left hand bracket into the hole directly to the right sets the machine for 16-inch face plates. Any length under 16-inch is provided by division lines on the face plate which holds the lower end of a dividing plate, while the upper end is held by a special hopper and guide furnished with the machine.

Adjustment for Width.

As blocks are made face down in the Knox Adjustable Block Machine, the depth of the mold box controls the thickness of block. The illustration shows machine set for making blocks 12 inches thick. To make blocks 10 inches thick the face plate brackets are moved up one hole. Moving the brackets up to the next hole makes blocks 8 inches thick. The next hole sets the machine for blocks 6 inches thick, and the top hole for veneer blocks 4 inches thick. All these adjustments can be made quickly and easily.

In the illustration on the following page you will notice that the K3 adjusting screws are changed so that the machine will make a block 20 inches long, 8 inches thick and 8 inches high.

These illustrations show the variety of blocks that can be made with any Knox Block Making Outfit.





One half block and two quarter



Corner Block.



Block with opening for joists.



Gable Block.

All these blocks can also be made solid or without core openings.

Any design shown on page 9 can be ordered in place of rock face shown above if desired.

OUTFITS IN THREE SIZES.

We furnish the Knox Adjustable Block Making Outfits in three different sizes, namely, for blocks 16 inches in length, 20 inches in length and 24 inches in length. You will note by referring to the prices quoted below just what can be done on these different size outfits, and on the opposite page we illustrate the different movements necessary in making a block in the Knox Adjustable Block Machine. We also illustrate on the

opposite page the Knox Machine adjusted to make an 8x8x26-inch block, whereas the illustration above shows the machine set for making an 8x12x24-inch block.

NOTE—All block sizes are actually ¼ inch less than measurements given for height and length, allowance being made for standard ¼-inch mortar joint.

Knox Block Making Outfit for Blocks 16 Inches Long.

No. 44B5928 Complete 16-Inch Knox Block Making Outfit. Will make blocks 2, 4, 6, 8, 12 and 16 inches in length and any of these lengths 4, 6, 8, 10 and 12 inches in thickness, all 8 inches high. Shipping weight, 675 neurolg. Price

Knox Block Making Outfit for Blocks 20 Inches Long.

Knox Block Making Outfit for Blocks 24 Inches Long.

No. 44B5933 Complete 24-Inch Knox Block Making Outfit. Will make blocks 2, 4, 5, 6, 8, 10, 12, 16, 18, 20 and 24 inches in length and any of these lengths 4, 6, 8, 10 and 12 inches in thickness, all 8 inches high. Shipping weight, 1,075 pounds. Price....\$88.50

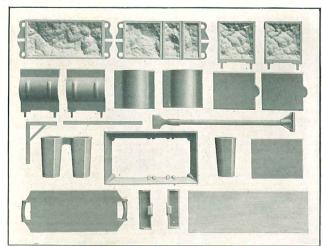
Single Machines if Wanted

A number of our customers have asked us to sell them a Knox Adjustable Block Making Machine to make just one size of block, so they could start with one size and add from time to time the parts necessary to make different sizes and

varieties of blocks. To meet this demand we quote below block machines in the 16, 20 and 24-inch sizes, on which you can make only one size block. Fractional sizes and different varieties can be made.



Note position of hand wheels K3 in the above illustration as compared with position of wheels in illustration on page 16. In the above they have been changed so that the machine will make a block 8x8x20 inches in size. The Knox Block Machine can be changed very easily from one size to another so that one machine is sufficient to make practically any size of block for which there is a common demand. If you want to make more than one size and are unable to select an outfit for your purpose, tell us what sizes of blocks you want to make and we will quote a price on an outfit to do the work.



The above illustrates the standard outfit furnished with the Knox Adjustable Block Machine for making one size of block in whole, half and quarter sizes. Commencing with top row and reading from left to right these parts are as follows:

One Rock Face Plate for whole blocks. One Rock Face Plate for half and quarter blocks.

Two Rock Endgates for corner and pier blocks.

Two Cored Endgates for regular stretcher

Two Cored Dividing Plates for half or quarter blocks with core ends.

Two Plain Dividing Plates for half or quarter blocks with straight ends.

One Iron Try Square to enable you to adjust flask true and square.

One Striker to scrape off extra material when block is finished. One Double End Tamper

One Double Core for air space in whole blocks (24-inch machines have triple core forming three air spaces in block.)

One Combination Hopper and Guide for dividing plates.
One Single Core for air space in half blocks.

Dividing Plate for making gable One blocks.

One Sample Iron Pallet. Two Joist Block Attachments. One Sample Wood Pallet.

Price List of Single Machines

All Shipped From Factory in CENTRAL OHIO.

After you receive any of these single machines you can order additional supplies as listed on page 18 to make any other sizes or kind of blocks you may desire.

Machine for Blocks 16 Inches Long.

Machine for blocks 10 lines Long.

No. 4485925 & xx\$s16-1nch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 425 pounds. Price. \$29,95

No. 4485926 & xx10x16-1nch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 440 pounds. Price. \$31,00

No. 4485927 & xx12x16-1nch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 460 pounds. Price. \$31,95

Machine for Blocks 20 Inches Long.

Machine for Blocks 20 Inches Long.

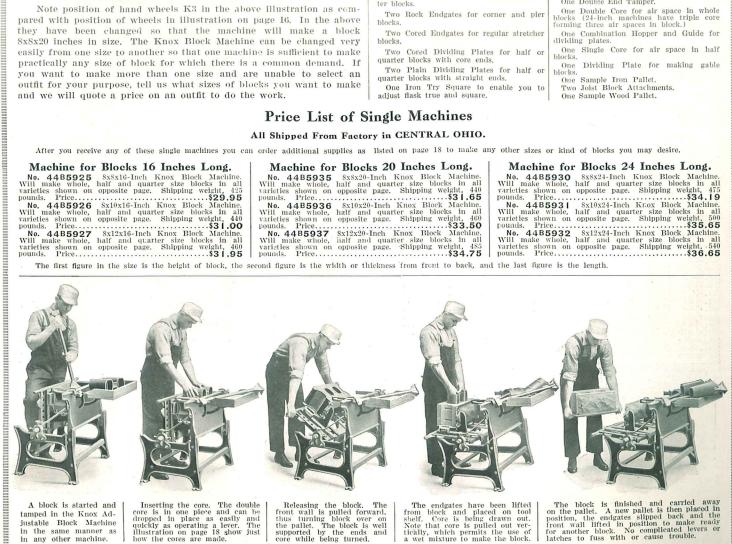
No. 44B5935 \$x\$x\$20-Inch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 440 pounds. Price. \$1.65

No. 44B5936 \$x10x20-Inch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 460 pounds. Price. \$33.50

No. 44B5937 \$x12x20-Inch Knox Block Machine.
Will make whole, half and quarter size blocks in all varieties shown on opposite page. Shipping weight, 485 pounds. Price. \$34.75

Machine for Blocks 24 Inches Long.

The first figure in the size is the height of block, the second figure is the width or thickness from front to back, and the last figure is the length.



A block is started and tamped in the Knox Adjustable Block Machine the same manner any other machine.

Inserting the core. The double core is in one piece and can be dropped in place as easily and quickly as operating a lever. The illustration on page 18 show just how the core are made.

Releasing the block. The front wall is pulled forward, thus turning block over on the pallet. The block is well supported by the ends and core while being turned.

The endgates have been lifted rom block and placed on tool helf. Core is being drawn out. tote that core is pulled out ver-ically, which permits the use of wet mixture to make the block. from bloc shelf. Co Note that tically, wh

The block is finished and carried away on the pallet. A new pallet is then placed in position, the endgates slipped back and the front wall lifted in position to make ready for another block. No complicated levers or latches to fuss with or cause trouble.

Additional Supplies for Knox Block Machine



Face Plate for whole blocks.

Face Plates.

A few additional face plates in various designs should be on hand in every block plant. We can furnish three sizes of plates for the Knox machine and each size can be had for making whole blocks or fractional blocks in various lengths as listed. All plates are shipped from factory in CENTRAL OHIO.



Face Plate for fractional blocks.

Price \$1.55
No. 44B5944 20-Inch Face Plate for whole blocks. Mention design wanted. Weight, 21 pounds, Price \$1.85
No. 44B5945 20-Inch Face Plate, divided to make fractional blocks as follows:

Division A—Divided to make two 5-inch blocks and one 10-inch block. Division C—Divided to make one 5-inch and one 15-inch block. Division E—Divided to make full length block with half of face smooth, for use in inside corners. Division F—With division line 15 inches from end, for outside angle bay window blocks.



All endgates for the Knox Block Machine are interchangeable and can be furnished in any design for corner blocks, and in cored style for regular stretcher blocks. Be sure to tell us what style or design and order the correct size.



Rock Design .98



Iron Pallets.

The Knox Block Machine uses wood pallets, but as many prefer to use iron pallets we are prepared to furnish them in many sizes at prices shown below.

pero	W .				
Be	sur	e to	give	correct	num-
ber	and	orde	er the	proper	size.

4B6000	4x16-Inch Iron Pallet.	Shpg. wt., 5 lbs.	Price210
4B6001	6x16-Inch Iron Pallet.	Shpg. wt., 6 lbs.	Price 25c
4B6002	8x16-Inch Iron Pallet.	Shpg. wt., 7 lbs.	Price 260
4B6003	10x16-Inch Iron Pallet.	Shpg. wt., 11 lbs.	Price30
4B6004	12x16-Inch Iron Pallet.	Shpg. wt., 16 lbs.	Price376
4B6005	4x20-Inch Iron Pallet.	Shpg. wt., 8 lbs.	Price 28c
4B6006	6x20-Inch Iron Pallet.	Shpg. wt., 9 lbs.	Price33c
4B6007	8x20-Inch Iron Pallet.	Shpg. wt., 10 lbs.	Price36
4B6008	10x20-Inch Iron Pallet.	Shpg. wt., 12 lbs.	Price420
4B6009	12x20-Inch Iron Pallet.	Shpg. wt., 16 lbs.	Price45
4B6010	4x24-Inch Iron Pallet.	Shpg. wt., 81bs.	Price326
4B6011	6x24-Inch Iron Pallet.	Shpg. wt., 15 lbs.	Price470
4B6012	8x24-Inch Iron Pallet.	Shpg. wt., 20 lbs.	Price60e
4B6013	10x24-Inch Iron Pallet.	Shpg. wt., 25 lbs.	Price 700
4B6014	12x24-Inch Iron Pallet.	Shpg. wt., 30 lbs.	Price850

No. 44B5946 20-Inch Circle Face Plate for curved face blocks for circular bay windows and silos. Furnished to make blocks to conform with circles of 16, 20 or 24-foot diameter and in rock and plain designs. Mention design and radius wanted. Shipping weight, 21 pounds. Price. \$1.95

No. 44B5947 24-Inch Face Plate for whole blocks. Mention design wanted. Shipping weight, 26 pounds. Price.......\$2.25 No. 44B5948 24-Inch Face Plate, divided to make fractional blocks as follows:

No. 44B5949 24-Inch Circle Face Plate for curved face blocks for circular bay windows and silos. Furnished to make blocks to conform with circles of 16, 20 or 24-foot diameter and in rock and plain designs. Mention design and radius wanted. Shipping weight, 26

Cores.



To make the proper air space in the various sizes of blocks it is advisable to have a core for each size of block you make. You can use a smaller core if desired, but you can save the price of the core in concrete saved by using a core designed for the size of block you want to make. All cores are made for blocks 8 inches high, the measurements given in the price list being the thickness or width and the length of block. Be sure to select correct size and mention correct catalog number.

Weight, 10 pounds. Price. S1.30	1	No. 44B5960 Single Core for 8x8-inch blocks. Shipping	
Shipping weight, 12 pounds. Price	١		1.30
No. 44B5964 Single Core for 10x10 or 10x12-inch blocks. Shipping weight, 15 pounds. Price	1		4 00
Shipping weight, 15 pounds. Price	١		1.80
No. 44B5964 Single Core for 12x12-inch blocks. Shipping weight, 18 pounds. Price			1 60
weight, is pounds. Price	١		1.60
No. 44B5965 Double Core for 8x15, 8x16 or 8x18-inch blocks. Shipping weight, 20 pounds. Price	1		1 00
Diocks. Shipping weight, 20 pounds. Price	1		1.90
No. 44B5966 Double Core for 10x15, 10x16 or 10x18-inch blocks. Shipping weight, 30 pounds. Price. 2.60 No. 44B5967 Double Core for 12x15, 12x16 or 12x18-inch blocks. Shipping weight, 35 pounds. Price. 3.25 No. 44B5968 Double Core for 8x20-inch blocks. Shipping weight, 25 pounds. Price. 2.75 No. 44B5969 Double Core for 10x20-inch blocks. Shipping weight, 30 pounds. Price. 4.00 No. 44B5970 Price. 4.75 No. 44B5971 Triple Core for 8x24-inch blocks. Shipping weight, 30 pounds. Price. 3.90 No. 44B5972 Triple Core for 10x24-inch blocks. Shipping weight, 35 pounds. Price. 3.90 No. 44B5973 Triple Core for 12x24-inch blocks. Shipping Price. 3.90 No. 44B5973 Triple Core for 12x24-inch blocks. Shipping 4.75	1		2 35
Diocks. Shipping weight, 30 pounds. Price	1		2.00
No. 44B5967 Double Core for 12x15, 12x16 or 12x18-inch blocks. Shipping weight, 35 pounds. 3.25 No. 44B5968 weight, 25 pounds. Double Core for 8x20-inch blocks. Shipping Price. 2.75 No. 44B5969 weight, 30 pounds. Price. 4.00 No. 44B5970 weight, 35 pounds. Double Core for 12x20-inch blocks. Shipping Price. 4.75 No. 44B5971 weight, 30 pounds. Triple Core for 8x24-inch blocks. Shipping Price. 3.90 No. 44B5973 riple Core for 12x24-inch blocks. Shipping Price. 4.75 No. 44B5973 Triple Core for 12x24-inch blocks. Shipping Price. 4.75	1		2.60
No. 44B5968 weight, 25 pounds. Double Core for 8x20-inch blocks. Shipping Price. 2.75 No. 44B5969 weight, 30 pounds. Double Core for 10x20-inch blocks. Shipping Price. 4.00 No. 44B5970 weight, 35 pounds. Price. 4.75 No. 44B5972 weight, 35 pounds. Triple Core for 10x24-inch blocks. Shipping Price. 3.90 No. 44B5973 riple Core for 10x24-inch blocks. Shipping 7.75 No. 44B5973 riple Core for 12x24-inch blocks. Shipping 4.75	1		
Weight, 25 pounds.	1	blocks. Shipping weight, 35 pounds. Price	3.25
No. 44B5970 Double Core for 10x20-inch blocks. Shipping Price	ı		
weight, 30 pounds. Price			2.75
No. 44B5970 Double Core for 12x20-inch blocks. Shipping Price. 4.75 No. 44B5971 Priple Core for 8x24-inch blocks. Shipping Price. 3.90 No. 44B5972 Triple Core for 10x24-inch blocks. Shipping Price. 4.75 No. 44B5973 Triple Core for 12x24-inch blocks. Shipping Price. 4.75 No. 44B5973 Triple Core for 12x24-inch blocks. Shipping 4.75			
weight, 35 pounds. Price			4.00
No. 44B5971 Triple Core for 8x24-inch blocks. Shipping Price			4 75
weight, 30 pounds. Price			4./5
No. 44B5972 Triple Core for 10x24-inch blocks. Shipping weight, 35 pounds. Price			2 00
weight, 35 pounds. Price			
No. 44B5973 Triple Core for 12x24-inch blocks. Shipping			
			7.73
			5.00
	_	1 110-0-11	0.00



Bay Window Construction.





Outside Angle.

To make bay window blocks it is necessary to have a pair of To make bay window blocks it is necessary to have a pair of bay window angle plates of the proper size, a face plate divided for half blocks for making inside angle blocks, and one plate with division line three-fourths the length of the plate for outside angle blocks. If you have no face plates properly divided, be sure to order from list above. A pair of angle plates and the face plates referred to in above description will enable you to make bay window blocks for inside and outside angles as illustrated. Be sure to tell us what design is wanted and order the correct size. Пин

Handy Two-Way Brick Machine



Makes Concrete Brick Face Down or Face Up.

Concrete brick have become very popular. They can be made as cheap or cheaper than clay brick, are handsomer in appearance, more durable, and better in every respect. Concrete brick grows stronger with age the same as other concrete materials. They cannot be destroyed by fire, as has been proven. It has been shown in a great many instances that concrete material is in every way nearer fireproof than clay brick. There are any number of cases on record where the entire contents of a concrete building were burned out, but the walls were in condition to be used for rebuilding, whereas it would have been necessary to rebuild the walls if clay brick or stone had been used. No concrete block plant is complete without a brick machine. Our Handy Two-Way Brick Machine is the machine we strongly recommend for making concrete brick. We call it a two-way machine because you can make brick either face down or face up, the latter method being almost twice as fast as the former. When brick are made face down the face can be colored or made in many fancy designs. You can also use a better mixture for the facing, making the brick so that it will compare with the highest priced pressed brick. For wall backing and to compete with common clay brick the brick can be made face up very rapidly.

Cost of Concrete Brick.

These figures are very liberal and in most cases, under ordinary conditions, common concrete brick can be produced for \$5.50 to \$6.00 per thousand but, remember, these common concrete brick will be better in shape, appearance and quality than common clay brick. Faced concrete brick, that is, brick with a face of a richer cement mixture, colored mixture or mixture with special material such as Micaspar Crystals, Crushed Granite or Crushed Marble in it, will cost but little more.

The selling price of concrete brick depends entirely on local conditions. The figures given will enable you to determine your own costs, and the building material market in your we will be glad to answer any questions you have to ask.

Construction.

The Handy Brick Machine is built throughout of the best gray iron castings and open hearth steel plates. The dividing plates are accurately ground and finished and securely attached to a framework which is moved back and forth by a rack or cog bar underneath the machine, where it is impossible to clog it with any concrete material that may be spilled. The side lever engages with two of these rack bars and one movement forward brings the dividing plates in position over the bed of the machine. The dividing plates are firmly locked on the front plate of the machine, so they cannot be forced out of place while tamping the brick. This insures turning out brick that are perfect in every respect. They will all be standard in size, measuring 2½x4x8½ inches. Every brick will be exactly the same and all corners will be square and sharp.

When Making Brick Face Down

The face of the brick is shaped by a planed bed which forms the top plate of the machine. After the brick are tamped and smoothed off the pallet is placed on top of them and two bracket arms swung over the pallet. The side lever is thrown backward, which withdraws the dividing plates, and the framework is turned down in front, as shown in the illustration. The brick are delivered face up on the pallet and the pallet can be conveniently removed from the machine without the use of a special carrier. When making ornamental face brick the ornamental face plates are picked loose from the brick as soon as they are turned over on the pallet. One set of ten face plates is all that is required to make a machine full of ornamental face brick at each operation.

To Make Brick the Face Up Way















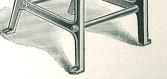
To Make Brick the Face Up Way

The planed face plate is removed and the pallet is placed on the bed of the machine. The dividing plates are brought forward by one movement of the lever, and the brick are tamped as released and the brick are then carried from the machine. With each machine we include a mallet tamper, steel striker, two sample wood pallets and a hopper. Shipping weight, 500 pounds. Shipped from factory in CENTRAL OHIO.

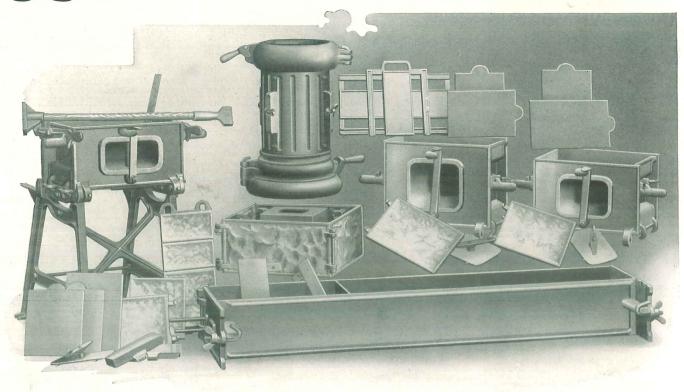
No. 4405809 Bandy Two-Way Brick Machine. Price.

Panel Design. No. 6.

This machine is made throughout of No. 1 grade gray iron and steel. All parts which have anything to do with the forming of the brick are carried from the machine and multiple to the state of the country of the brick and the price of the provided for turning out a perfect brick. The machine is not and to made to mold brick face down, but makes them face up only. It is a very efficient and reliable low priced brick archine and turn out from 1.000 to 2000 this machine. The side lever which late the front plate in position are used as handles for throwing the dividing plates through the rear wall, releasing the brick or to match the face plate you will require a special and and face plate in the face plate for our Handy Two-Way Brick Machine in any of the landsome designs shown above. Control to match the face plate you will require a special and and face plate for our of order or give trouble. It is fully guaranteed to give perfect with the order of th



The Triumph Block and Porch Outfit



A Complete Low Priced Outfit

The Triumph Block and Porch Outfit is a complete but very low priced outfit. It contains all the necessary equipment for making rock face blocks in sizes 8x8x16 inches, 8x10x16 inches and 8x12x16 inches. You can also make fractional blocks, that is, half and quarter blocks of each of these sizes as well as blocks with openings for joists, blocks for corners, blocks for piers and for gables. The porch molds included in the outfit are complete in every detail and will enable you to add the erection of concrete porches to your line of work.

The Triumph Block and Porch Outfit Consists of the Following Items:

One No. 44B5720 Triumph Block Machine and outfit for making

One No. 44B5758 Flask Attachment for making 8x10x16-inch blocks.

One No. 44B5759 Flask Attachment for making 8x12x16-inch blocks.

One No. 44B5810 Badger Sill and Cap Machine.

One No. 44B5770 Fluted Column Mold, 10 inches in diameter, 12 inches high.

One No. 44B5848 Rock Face Pier and Chimney Mold, 16 inches square, 73/4 inches high, with 8x8-inch core.

One No. 44B5834 Column Cap and Base to match 10-inch column.

One No. 44B5773 Ring Mold, 10 inches.

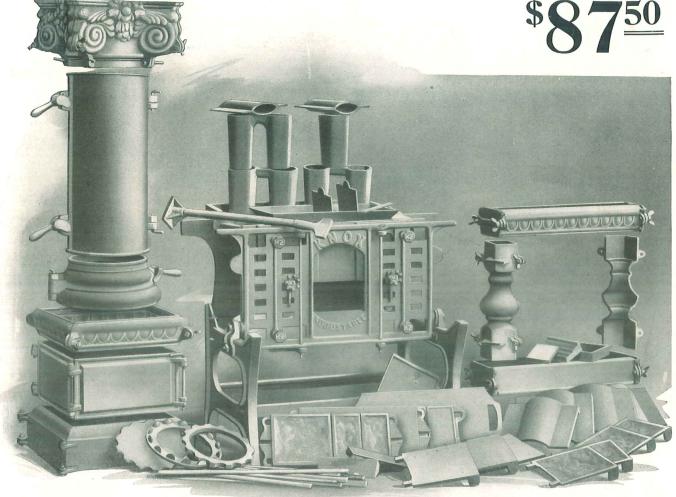
One No. 44B5694 Set of 8-inch Block Laying Gauges.

One General Information Book on Concrete Products Manufacture.

All of these machines or molds are fully described in this catalog and every item in this outfit is our regular stock, guaranteed perfect and satisfactory in every respect. We assemble these outfits in large quantities and we give you the saving we make by so doing. You can add additional supplies for making different designs or varieties of blocks and porch materials at any time you may need them. We will furnish designs other than those listed above if you so wish and in this case please be sure and make it plain in your order that a change is desired.

This outfit is shipped complete and direct from the Concrete Machinery Factory in CENTRAL OHIO. Shipping weight,

The Money Maker Block and Porch Outfit



A High Grade Outfit for the Up to Date Block Plant

This outfit will enable you to make products for practically any kind of a building. Get the cream of the concrete product business by buying this outfit. Make a specialty of high grade block and porch work. The products of this outfit will enable you to take care of a big and profitable business.

This Outfit Consists of the Following Items:

One Knox Block Machine, No. 4415925, with complete Rock Face
Outfit for 8x8x16-inch blocks, as described on page 17.

Two 8x10-Inch Core Endgates.
One Say 10-Inch Core Endgates.
One Sx10-Inch Core Endgates.
One Sx10-Inch Core Endgates.
One Sx10-Inch Plain Endgate.
One Sx10-Inch Rock Endgate.
One Sx10-Inch Rock Endgate.
One Sx10-Inch Rock Endgate.
One Sx10-Inch Rock Endgate.
One Sx10-Inch Plain Endgate.
One Sx10-Inch Plain Face Plate for whole blocks.
One 16-Inch Plain Face Plate for balf and quarter blocks.
One 10-Inch Plain Face Plate for balf and quarter blocks.
One Double Core for 8x10x16-inch blocks.
One Double Core for 8x10x16-inch blocks.
One Sample Wood Pallet for 10-inch blocks.
One Baluster Pallet.
One Sample Wood Pallet for 10-inch blocks.
One Baluster Pallet.
One General Information Book on Concrete Products Manufacture.

This equipment will enable you to make blocks 4, 8, 12 and 16 inches long, in 8, 10 and 12-inch thicknesses. These sizes are in common demand for all ordinary classes of buildings. Should you want to make other sizes you can select such extras as you may need from the list of extras on page 18.

The molds for porch material are the same as described on pages 36 and 37 and make a product suitable for the best of houses. Designs as illustrated and described will be furnished unless otherwise ordered.

If you were to buy these molds separately they would cost you \$94.18. By putting these outfits up in quantities we are able to make a price of \$87.50, saving you \$6.68. All machines and molds in this outfit sold under our "Money back if not satisfied" and "thirty-day free trial offer" as explained on page 8.

Shipping weight, 1,150 pounds. Shipped from factory in CENTRAL OHIO.

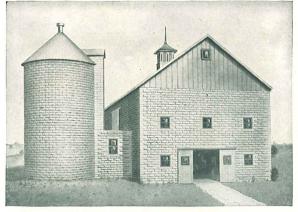
No. 44B5670 Money Maker Block and Porch Outfit of Concrete Machinery. Price.......\$87.50

Concrete Block Silos Are a Success

The advantages of a silo for the storage of winter feed for cattle are already known in all sections of the Read what the United country. States Department of Agriculture has to say about it. Send to the United States Department of Agriculture, Washington, D. C., for free Farmers' Bulletin, "Silage in Place of Grain for Dairy Cows." It will show you the great advantages to be derived from the use of a silo.

The Triumph Concrete Silo Block Machine is purposely constructed to meet the demands of the farmer, making it possible for him to own a concrete silo at very little cost. The Triumph Silo Block Machine will make blocks that bind each other together and at the same time bind one course or tier to the one below it. This makes the silo stronger

than you can build it in any other way when using concrete blocks. It puts the concrete block silo on a par with the costly monolithic or poured silo, which is built up with expensive reinforcements. The average farmer cannot build a monolithic silo, but he can build a concrete block silo by using our Silo Block Machine for making the blocks, as they are very easily laid. A groove is formed in the top of each block in which the



An example of what can be done with the products of our Triumph Silo and Building Block Machines.

Use Concrete Blocks for Sanitary Fireproof Farm Buildings

reinforcement wire, consisting of No. 8 smooth wire or two or three strands of barbed wire, is laid. A cement mortar is used to lay up the blocks and the groove containing the wire is filled up with this cement mortar to protect the reinforcement from rust. The key openings between the blocks are filled with this cement mortar, which binds the blocks together and makes the silo just as strong as any expensively built monolithic silo.

Cost of Concrete Block Silo

The cost of making and maintaining a concrete block silo is very low in comparison with other methods of construction. No painting and little, if any, repairs are required; there is no danger of the silo shrinking during the summer months and collapsing or blowing over, and there is no possibility of destruction by fire. The silo made of hollow concrete blocks will keep silage in perfect condition.

To build a silo 30 feet high and 14 feet in diameter will require 1,575 blocks. You can make the blocks yourself or have them made by your help in spare time and at a cost not to exceed 8 cents each, with allowance for labor. See page 3. They can be laid up in the wall at a cost not to exceed 3 cents each, a total of 11 cents each for the blocks laid up in the wall, or \$173.25 for the silo walls. A liberal allowance for lumber, carpenter work, excavating and ventilator would be \$75.00, so that a 30x14-foot concrete block silo would cost you, complete, about \$248.25. This estimate is very liberal and we are sure that the actual cost of a silo of this size will be less. A smaller silo, of course, would cost less in proportion. A silo of this kind, built according to our instructions, will be as durable and as practical as a solid reinforced poured concrete silo. A comparatively light scaffold is all you need for erecting

a block silo, while a solid poured silo requires a heavy scaffold and an expensive set of forms and riggings for elevating the concrete. Anyone of ordinary intelligence can make and lay concrete blocks, but it requires a practical workman to erect, reset and fill the forms used in a solid poured concrete silo.

Each machine is furnished complete with a sample wood pallet, tamper, face plates for whole blocks and for two half blocks, and dividing plate. There are no extras to buy for the machine and additional pallets can be made of any smooth lumber. The blocks can be used for a silo of any diameter from 10 to 18 feet; 8x10x16-inch blocks should be used for the first 20 feet of silos more than 36 feet high. We furnish rock or panel design as desired. Please mention which you want, otherwise we send rock design. Shipped from factory in CENTRAL OHIO.

Price List Triumph Silo Block Machines.

No. 44B5801 Triumph Silo Block Machine, complete. Size of block, 8x 8x16 inches. Shipping weight, 130 lbs. Price...\$11.25 Triumph Silo Block Machine, complete. Size of block, 8x10x16 inches. Shipping weight, 140 lbs. Price... 11.75 No. 44B5802

Silo Block Machine Without Stand.



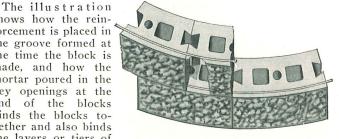
For the benefit of those who do not care for a machine with a stand we have designed a special hinge casting by which the silo mold box can be fastened to any wooden bench. Shipped from fac-tory in CENTRAL OHIO.

No. 44B5756 Triumph Silo Block Machine, without stand, for 8x8x16-inch blocks.

. \$8.75

Shipping weight, 75 pounds. Price...... No. 44B5755 Triumph Silo Block Machine, without stand, for 8x10x16-inch blocks. Shipping weight, 85 pounds.

shows how the reinforcement is placed in the groove formed at the time the block is made, and how the mortar poured in the key openings at the end of the blocks binds the blocks together and also binds the layers or tiers of



blocks by going down into the depression formed in the top of the block between the core openings. This method binds all blocks solidly together, thus taking much of the strain from the reinforcement. There is no simpler way of building a silo, and our method is perfectly safe. Price\$8.75 | a silo, and our method is perfectly safe.

How to Build a Silo With Concrete Blocks

THE SIZE TO BUILD.

The size of silo to build depends entirely upon the number of cattle you intend to feed, the length of time you want to feed from the silo and whether you are feeding dairy cattle or raising them for market. Silage should not be exposed to the air for more then twenty-four hours, as this causes it to decay. Well settled silage is practically airtight 1½ to 2 inches below the surface, therefore, in order to keep the silage fresh the diameter of the silo should be small enough to permit you to feed a full layer 3 to 3 inches thick each day. If the silo is of excessive diameter you will not be able to feed a complete layer and that portion of the layer that remains will be subject to decay or mold. Allowance must be made for the settling of the silage after it is placed in the silo. Under average conditions the settling will amount to from one-sixth to one-fifth of the total depth, therefore, to figure on having at least 30 feet of silage in your silo you should build it 35 or 36 feet high to allow for the settling. The table below shows the amount of settled silage in silos of various sizes. Remember, your silo should be one sixth higher than the height given, to allow for settling.

Height, Feet	Inside Diameter, Feet	Capacity, Tons	Amount That Should Be Fed Daily to Remove Full Layer
30	10	47	525 pounds
30	12	67	755 pounds
36	12	87	755 pounds
30	14	91	1,030 pounds
36	14	118	1,030 pounds
36	16	155	1,340 pounds

The amount that should be fed daily in the above table is figured on feeding from 40 to 50 pounds a day to each animal. You can easily tell how large a silo you will

need, using the above table as a basis in connection with the number of days' supply you wish the silo to hold and the amount required for each day's feeding. For instance, if you are to feed twenty-five cattle at the rate of 45 pounds each a day, you will have to feed 1,125 pounds a day. The depth of the silo should control the number of days' feeding you must supply. For 180 days' supply you will need 202,500 pounds, or about 101 tons. By referring to above table you will find that a silo 36 feet deep and 14 feet in diameter is the size to build in order to hold the required quantity and insure a full layer being removed each day.

LOCATION.

The silo should be located near to where the stock is to be fed, to save time and labor in handling. The silo can be built in direct connection with the barn if desired, or it can be a small distance from the barn, having a connecting shed as shown in illustration on page 22. Build the silo so that it will get as much of the sun as possible and be protected from the cold north winds. Silage does not freeze readily in a concrete silo, and if favorably located will be preserved as well or better than if kept in a silo of any other construction.

EXCAVATING.

Locate the center of silo and mark it by a stake or round pole placed firmly in position. Fasten one end of a stick or rope to this center stake so it will turn and not bind. Measure off on the stick or rope from the center of the stake exactly one-half the outside diameter of the silo, and with a marker placed at the proper point draw a circle on the ground, which gives you the outside line. Excavate to this line at least 5 to 6 feet deep, leveling the bottom of the pit. Then locate the center again and put in stake and draw another circle, which will be exactly 2 inches less than the inside diameter of the silo. Leave the center stake in position until walls are partly up. Excavate outside of this line to a depth of 1 foot to 1 foot 6 inches, depending on the nature of the ground, and fill this trench with a wet mixture of concrete in the proportion of one part cement, three parts sand and six parts gravel or crushed This forms the footing which supports the walls. Clear up all loose soil in the pit and cover the bottom and footings

See Opposite Page for Machines for Making the Blocks. 3'6" 4'0" or 6'0' NOTE—For the purpose of illustration we give directions for a silo 16 feet inside diameter and 30 feet deep. You can make any size silo by following these directions and changing the figures to correspond. CONSTRUCTION OF DOOR 2'0' 3'0' 24'0" I T SHOWING DOOR IN JAMB 8'0" RAD. I 16,0, DIAME SHOWING 60 METHOD OF OBTAINING CIRCLE. できた。モンタのグルコール/GUNCREITSとは、高学寺

with a layer of wet concrete 4 inches thick, leveling it all carefully. When this concrete has set, draw a line on the footing to show the inside dimension of the completed silo. Lay the blocks to this line, using a mortar consisting of one part cement and two parts clean sharp sand. Always lay the blocks so the wedge opening on the end comes over the depression in the center of the top of the lower block. In the groove formed in the top of the block lay a No. 8 wire or two strands of barbed wire, fastening the ends securely so they cannot slip, and see that this wire is embedded in the mortar. If the silo is to be more than 30 feet high, a vertical reinforcement should be used the first 10 feet above ground and may consist of 3/8-inch steel or iron bars placed every 24 inches into the core opening of the block, and then the core filled with 1: 2: 4 concrete mixed thin enough to pour.

THE DOOR OPENING.

This may be either continuous or composed of several individual doors as illustrated. The continuous door is the easiest to build, and is formed of 2x6-inch planks placed 2 feet apart with 1½-inch iron pipe ladder steps placed every 2 feet. These pipes should be threaded at both ends and fitted with locknuts to be placed on each side of the door frame to hold it rigid. The reinforcing wires should run through these pipes. Where there is no pipe the reinforcing should be securely attached to the door frame. The door is formed of pieces of 2-inch plank placed from the inside and flush with silo wall. The pressure of the silage will hold them in place. If individual doors are desired, construct them as shown in the illustration, fastening the reinforcing to the door frame. The inner side of the door must be smooth so that it does not interfere with the settling of the silage.

THE ROOF.

The roof of the silo is built similar to any other roof, only on a circle conforming to the diameter of the silo. The rafters are placed 2 feet apart at the lower edge and pitched toward the center at an incline of 4 to 6 feet from the highest point to the lowest edge. When placing the rafters for the roof, construct a gable with door opening large enough for entering and filling the silo. Cover with roofing boards and prepared or felt roofing.

CUPOLA.

A cupola is not absolutely necessary, as ventilation can be provided through the door opening, although it adds to the appearance of the silo and requires no care. The cupola illustrated is constructed of galvanized iron 2 feet in diameter, 3 feet 6 inches high, having a cap 3 feet in diameter and 9 inches high.

Should you desire any aditional information write us and we will be pleased to advise you fully.

Micaspar Crystals

2

Illustrations Show Crystals Natural Size.



Special Sample Outfit.

We recommend this assortment to those who are trying this material the first time.

No. 44B6146 Micaspar Crystals. Five bags consisting of 100 pounds of each size. Price for 5 bags...\$2.75

Price, per 100-pound bag.

No. 2 Size Micaspar Crystals.

Price for 5 bags.

.\$0.58 . 2.65









Micaspar Crystals are shipped from CHICAGO and from CROWN POINT, N, Y., the one nearest you.

Write Us for Prices in Carload Quantities.

Price, per 100-pound bag... Price for 5 bags......

Micaspar Crystals for Sparkling Concrete Work

200

Micaspar Crystals are composed of 95 per cent of pure feldspar, which is a very hard mineral, and 5 per cent of pure black mica, or about the same proportion as found in natural granite. The material is crushed and graded in various sizes, as shown by full size illus-

The crystals are of various shades, white, pink or green. The black mica gives a sparkling effect to the surface, as it has a high luster

and reflects the light, making the surface glisten. This effect cannot be produced by any substitute. By the use of different sizes various surfaces can be made, from beautiful coarse rough work to fine grained smooth work, producing the effect of natural granite. This effect cannot be

By using white cement, or cement with mineral colors, in connection with Micaspar Crystals for facing concrete work or for floors, and polishing with carborundum blocks and water, an effect more beautiful than marble can be obtained.

Uses of Micaspar Crystals

Micaspar Crystals can be used in any kind of cement work from walks or floors to the finest and costliest reinforced concrete building. We mention many uses below. The number of uses, however, is practically unlimited. We make many suggestions but you will find many other uses for them in your everyday work. We urge you to at least get a small quantity of this material and make up a few specimens of work showing its use. The prices you can get for work or products finished with Micaspar Crystals will surprise you.

We strongly advise the use of this beautiful facing material because it makes a better product, commands better prices with more profit to you, and it builds up a bigger business than the use of common sand and cement facing.

Use Micaspar Crystals for Facing Concrete Blocks.

A facing, \(\frac{3}{5} \) inch or \(\frac{1}{2} \) inch thick, composed of a mixture of one part of No. 3 grade, one part No. 3\(\frac{1}{2} \) grade and one part of No. 5 grade mixed with one part of white or gray cement, finished as suggested below, will make a handsome waterproof block that can be sold for more than twice the price of an ordinary face block, and at the same time the micaspar face block will cost but a few cents more to make. Many combinations of the various grades can be used, depending on individual taste. One bag of Micaspar Crystals will face thirty-six blocks, size \$x8x16\$ inches, with a handsome waterproof face \(\frac{1}{2} \) inch thick. Less than 2 cents per block will cover the cost of this handsome, durable facing. durable facing.

Micaspar Crystals have done more to advance the sale of concrete blocks than any other facing material ever used.

Use Micaspar Crystals for Concrete Brick.

Concrete brick faced with Micaspar Crystals will command a higher price than the ordinary face brick and are especially adapted for decorative work, mantels and fireplaces. Three sacks of Micaspar Crystals will face 2.000 brick with a handsome waterproof facing % inch thick. Brick faced with this material can be sold at about twice the price of ordinary face brick. Coarse Micaspar Crystals, such as the No. 2 or 3 grade, used sparingly in connection with colored cement, will produce a handsome brick. The combination of grades and colors to use depends largely on individual taste and judgment. This material permits of so many varieties of surface that you can make practically any kind of surface you or your customers may want. Order at least one bag and try this material. The results of its use will agreeably astonish you.

Use Micaspar Crystals for Ornamental Work.

Concrete is extensively used for making flower vases, urns, statues, tombstones, grave markers, cast stone building trim and for many other decorative purposes. The use of Micaspar Crystals for facing this class of work cannot be excelled by any other material. You must really see what can be accomplished with Micaspar Crystals to appreciate its beauty. It is impossible to illustrate it and do it justice. Below we mention several places where Micaspar Crystals have been used, and if at all convenient, it will pay you to examine the results of using this kind of concrete facing material.

Use Micaspar Crystals for Stucco Plaster.

Micaspar Crystals are being used in rough, troweled or floated surface stucco work, on hollow tile, brick, metal lath or wherever plastering can be suggested, whether inside or out. The finer grades, such as Nos. 4 and 5, are also being used extensively in hard wall plastering sand finished walls.

For interior finishes Micaspar Crystals have been used in apartment houses in place of slate or marble for entrance halls and vestibules. They have also been used for wall finish in foyers, grills, reception rooms and the like in hotel and theater buildings.

For outside spatter dash finish the large size aggregates, such as Nos. 2 or 3 grade, cannot be surpassed in the brilliant effect they produce. Each crystal being irregular in shape with sharp edges takes a hold in the surface in a manner absolutely different from other aggre-

Plastering, outside or in, with Micaspar Crystals is done exactly in the same manner as when using other materials.

Micaspar Crystals have been used all over the United States. Possibly some of the jobs listed below are near you and if so it will pay you to inspect them and see for yourself what can be done with this material.

Entrance and Fence Pillars, Valhalla Cemetery, St. Louis, Mo. M. E. Church, Hazelton, Penn. M. E. Church, Neponset, Ill. Emmanuel Congregational Church, Watertown, N. Y. Manufacturers' National Bank, Rockford, Ill. New York City Municipal Building. D. L. & W. R. R. Station, Mountain Lake, N. J. Public Bathhouse, Albany, N. Y. The J. R. Clancy Factory, Syracuse, N. Y.

Railroad Station, Steubenville, Ohio.
Railroad Station, Sidney, N. Y.
English Lutheran Church, Binghamton, N. Y.
New City Market, Fort Wayne, Ind.
Trinity Methodist Church, Lincoln, Neb.
Rocky River Bridge, Cleveland, Ohio.
Comfort Station, Sutton Place and 60th Street, New York City, N. Y.
Hudson Tube Entrance, Broadway and 33d Street, New York City, N. Y.
Broadway Theater, Detroit, Mich.

These are only a few of the thousands of jobs on which Micaspar Crystals have been used. Be the first in your neighborhood to use this high grade facing material and do concrete work that none others can excel in durability and appearance.

Methods of Using Micaspar Crystals

The Mixture.

This depends largely on the finish desired. It is best to mix several grades together so the finer particles will fill the voids or spaces between the coarse particles. Mix with cement in the proportion of one part cement to three parts Micaspar Crystals in about the same manner as you mix cement and sand facing. A little experience will enable you to make up mixtures to suit your taste. The various grades offer so many varieties that the possibilities in the use of Micaspar Crystals are almost unlimited. Crystals are almost unlimited.

Applying Micaspar Facing.

Applying Micaspar Facing.

This is done about the same as in applying other concrete facing materials. When used in FACE DOWN BLOCK MACHINES the face plate should be clean and dry. A layer of Micaspar facing is spread over the face plate about ½ inch thick, then a layer of 1:2 cement and sand mixture, about ½ inch thick, and finally the usual backing material. Block should be well tamped. Under some conditions and with some designs of face it is well to sprinkle a thin layer of Micaspar and cement, almost dry, over the face plate before putting the regular facing mixture in the machine. When a coarse rough face is wanted use a smooth face plate in the machine. Oil this and apply a thin layer of ordinary clay. Sprinkle a layer of No. 2 Micaspar Crystals on the clay and finish the block in the usual way. The crystals sink in the clay and prevent the cement getting on the surface. When the blocks are thoroughly hardened the clay can be removed by a stream of water and soft brush, leaving the coarse crystals thoroughly clean in all their beauty.

In a FACE UP MACHINE a different method for applying the facing

their beauty.

In a FACE UP MACHINE a different method for applying the facing is used. These machines often consist of molds into which the concrete is poured very wet and allowed to harden before the molds are removed. When the mold has been nearly filled with concrete, a wet layer of cement should be spread on the top and leveled carefully with a trowel. The Micaspar should be sifted dry on the wet cement. Some makers press the Micaspar into the surface by running a heavy roller over the mold or by pressing it down with a smooth plate or board. Some of the Micaspar is not pressed into the cement and comes off, but this does not matter as there is always enough embedded in the cement

to cover the surface. This kind of surface does not as a rule require washing. The layer of Micaspar is very thin. If a thicker layer is desired a mixture must be made up in the ordinary way, in which case the facing can be made of any thickness desired.

To apply MICASPAR FACING TO POURED CONCRETE WORK, SIDE FACE MACHINE, and ornamental work, the mixture is placed next the face plates or boards in the usual manner by means of removable sheet iron partitions, or by hand placing when ornamental molds are used.

Finishing the Face.

To bring out all the beauty of Micaspar Crystals the cement should be removed from the surface either mechanically or chemically. Remove the cement by rubbing the surface with a piece of board and fine sand or a carborundum block, keeping plenty of water on it.

An effective wash is diluted muriatic acid. One part of acid to five parts of water is strong enough for most purposes. The acid dissolves the cement and leaves the Micaspar exposed. The surface must be washed with clean water first, then washed with the acid solution and then thoroughly washed two or three times with clean water and soft brushes to remove all trace of the acid.

brushes to remove all trace of the acid.

If the concrete forms can be removed shortly after the setting of the cement, the surfaces can be cleaned by being sprayed with water from a hose. This method must be employed with a great deal of judgment, as the washing must be done just at the moment when the concrete has the right consistency. If it is too green the Micaspar may wash off, and if it is too hard the cement will not wash off. It is generally better to remove the cement by rubbing the surface with a piece of board and sand, keeping plenty of water on it.

To properly clean up the face of this class of work requires a certain amount of experiment, as the method used is determined largely by the style of finish and the condition of the product. To make this beautiful class of concrete products requires a little additional labor as compared with the common class of concrete work but, as in all lines, high class work is what pays the biggest profits and gives the best results. We solicit correspondence in connection with the use of this material and will gladly give you any further advice needed. See piice list on opposite page.

Batch Concrete Mixers

\$19\frac{95}{2} For Hand Power Revolving Drum Type For Belt Power \$43\frac{75}{2}

We have sold these mixers for a number of years and they are giving general satisfaction among our customers. If the various materials are evenly distributed in the drum these machines will mix the concrete as thoroughly as any other type, although they do not save you quite as much labor as an open drum batch mixer like our Economy mixer shown on page 27. If you do not care to invest more money than the prices quoted below, order one of these mixers and we are sure you will be perfectly satisfied. These machines will mix perfectly to any consistency from dry mix for product manufacture to slush mix for sidewalks or poured work.

FARMERS-Please note: These mixers are first class for mixing feed such as bran, middlings, oats, corn and other foods for cattle and other live stock.

Hand Batch Mixer.



The construction of our Hand Batch Mixer is high grade throughout in material and workmanship. The receptacle is made entirely of iron, built to form a triangle shape drum with rounded corners. The drum heads are of cast iron, the left hand drum head having a cold rolled steel shaft, chilled to the center, which runs in a solid box on the stand, the gear being fastened to this shaft. The right hand drum has a hollow cast shaft through which a perforated water pipe passes. This pipe runs directly across the center of the drum and enters a bearing on the opposite head. The water pipe is perforated so the flow of water is distributed evenly throughout the batch the flow of water is distributed evenly throughout the batch when the drum is in action. The shell is made of 14-gauge cold rolled iron and is riveted to the flanges on the drum head. Inside the drum, running across the center of the base of each angle, is a 1-inch angle iron that carries the material to an elevated position, throwing it over and over, mixing it thoroughly in one minute. The cover is hinged directly to the drum and is locked by means of the double eccentric latching device, as illustrated. It holds the cover securely and is quickly and easily locked or unlocked. The water tank is connected with a 1/2-inch pipe and stands on a bracket securely attached to the frame. A 1/2-inch globe valve regulates the flow of water.

We can also furnish machine without the water and perforated pipe and connections, the water being poured directly into the drum with the materials to be mixed.

The crank attached to small gear has a throw of 15 inches, giving great leverage. This, in connection with the back gearing of four to one, makes this machine easy to operate. The frame is made of well braced castings (not wood) and a steel hopper is built into the base, as illustrated. Machine is well painted and securely crated for shipment.

SPECIFICATIONS.

Length of drum, 30 inches; circumference, 72 inches; diameter, 23 inches; height over all, 4 feet 4 inches; length over all, 4 feet 2 inches; mixing capacity, 3 cubic feet. Shipped from factory in CENTRAL

No. 44B5760 Hand Batch Concrete Mixer with water attachment. Shipping weight, 300 pounds. Price........\$19,95
No. 44B5761 Hand Batch Concrete Mixer without water attachment. Shipping weight, 285 pounds. Price.......\$18,75

Power Batch Mixer.



The construction of our Power Batch Mixer is the same as that of the Hand Batch Mixer, only that the Power Batch Mixer has a larger capacity and a heavier steel shell. The transmission is geared to turn the drum fifteen revolutions per minute when pulley is driven at 180 revolutions per minute. The engine can be left running and you can stop the drum to discharge or load the material by shifting belt from tight to loose pulley. A 1½-horse power gasoline engine will drive this power mixer very nicely, although a larger engine can be used if desired.

The capacity of the Belt Power Mixer is 5 to 6 cubic feet per batch, and it is suitable for mixing wet or slush concrete for sidewalks, street ballasts, foundations and other work requiring this kind of mixing. It will also mix semi-wet or dry materials thoroughly, making it especially suitable for a concrete product plant where several machines are operated. It has capacity enough to supply a number of concrete building material machines.

The mixing is made complete in one minute, or fifteen revolutions of the drum. The perfect mixing of the materials is secured by elevating them by means of the angle irons on the inside of the drum, causing the material to be turned over and over, mixing thoroughly in one minute. To discharge the batch the door is opened and the drum revolved, allowing contents to drop on the sheet steel hopper in the base of the stand. The drum can be loaded from either side.

SPECIFICATIONS.

Length of drum, 36 inches; circumference, 84 inches; diameter, 26 inches; height over all, 4 feet 6 inches; length over all, 4 feet 8 inches; pulley, 8 inches in diameter, 2-inch face, should be driven 180 to 200 revolutions per minute; capacity, 5 to 6 cubic feet. Shipped from factory in CENTRAL OHIO.

Economy Concrete Mixer

For Hand or Power Operation



Here is a machine which is very practical for general use on large or small jobs and with or without power. The price of \$49.75 puts it within easy reach of every concrete contractor or concrete product maker, and the time and labor saved in six months' use will more than cover the cost of the mixer. In addition to these advantages also consider that machine mixed concrete is much better than hand mixed concrete, a quality feature in your finished work that will bring you more business and better profits. This machine can be hauled on any contractor's wagon and used by hand on a small job where it would not pay to use an engine. On a large job two or more of them can be used, saving considerable time. The mounted machines with power shown on pages 28 and 29 are more desirable where it is necessary to move from job to job, and are furnished at a price that is very low.

This type of mixer has proven to be very efficient for batch mixing of all kinds of concrete, wet or dry, and for any purpose. There are many machines of this type on the market, but we believe we have the most efficient and easily operated machine made.

The drum of the Economy Mixer is fitted with a pocket which elevates the coarser materials and throws them back into the drum, mixing the fine and coarse materials thoroughly. Without this pocket and with most other paddle arrangements the coarser materials have a tendency to separate from the finer and roll to the front.

The Economy Mixer has a very heavy flywheel, which enables the average laborer to turn the machine with one hand when fully loaded. This flywheel, or pulley, is 40 inches in diameter, has 3-inch face and makes an ideal pulley for direct drive from gasoline engine of 1½-horse power or more. It is large enough to belt direct from a high speed engine without using a line shaft for reducing speed.

Drum bottom is cast iron, held in a heavy yoke and ring by iron rollers 3 inches in diameter, which work on brass bushings, making a much stronger mounting than the usual pivot mounting. The balance of drum is made of heavy sheet steel, put together in a substantial manner. The drum can be loaded and dumped without stopping, so a clutch or loose pulley is unnecessary. Locking device to prevent drum from tipping is adjustable so drum can be set at various angles, depending on quantity of material in the drum and consistency of mixture, and the large lever makes the job of dumping the drum an easy one.

Drum is driven by a pinion on the pulley shaft which engages with a toothed track or bull gear on the drum. This toothed track or bull gear is a separate casting, making it unnecessary to replace the entire drum casting in case of wear.

Specifications of Economy Concrete Mixer.

Diameter of drum, 26 inches. Depth of drum, 33 inches. Mixing capacity of drum, 3½ to 5 cubic feet. Drum actually holds 8 cubic feet. Output of mixer, a batch every two minutes.

Daily output of mixer, 35 to 60 cubic yards. Height to bearing of drum, 36 inches. Diameter of belt wheel, 40 inches. Face of belt wheel, 3 inches. Shipping weight, 600 pounds.

No. 44B6120

Shipped from factory in CENTRAL OHIO. Economy Combination Hand and Power Concrete Mixer. Price.....

\$49.75



No Time Lost in Discharging From the Economy Mixer.

The drum is mounted so it almost balances when loaded, and this feature, in connection with the long discharge lever, enables one to dump the Economy Mixer very easily even when the drum is fully loaded and while in motion. The same lever enables you to return drum to mixing position and it can be loaded very quickly when measuring boxes are used. For mixing small batches of 3 cubic feet or less the drum can be set almost in horizontal position, as the latching device for holding it stationary is adjustable. When fully loaded the drum should set at an angle of about 30 degrees above the horizontal. This adjustment makes it possible to mix small as well as large batches. As one end of drum is open the condition of the mixture is in plain sight all the time, a big advantage over a closed drum machine. Water can be added by means of a hose or pail, the proper quantity being gauged very easily by the appearance of the mix. The best method is to measure the various ingredients so each batch will be uniform in quality and color.

The Economy Is a Simple Machine.

As shown in the illustrations, the Economy Mixer is very plain and simple in design. The crank for hand operation can be put on or taken off in about two minutes. The belt wheel is securely mounted on the drive shaft, so there is no friction clutch or belt shifter to cause trouble. The only gear on the machine is protected by the track on which the drum revolves, so it cannot become clogged with material. It is an easy running machine; any engine of 1½-horse power or more will operate it. It is "REAL ECONOMY" to have an Economy Mixer in your equipment of concrete machiners.

2 Economy Portable Mixing Plant



Every Contractor Needs One

This concrete mixer will meet the requirements of practically any contractor. The drum actually holds about 8 cubic feet and the mixing capacity is 3½ to 5 cubic feet per batch. One minute is sufficient time of operation for a perfect mixture, so a batch of perfectly mixed concrete can be had every two to three minutes, giving a daily output of 40 to 60 cubic yards of properly mixed concrete.

If the Economy Mixer does not seem large enough for your needs it will be more advantageous to buy two or more Economy Mixers than it would be to buy a mixer having twice the capacity of an Economy. By using two mixers you can complete the job as quickly as with one large mixer, and when the job is completed you have equipment for doing two smaller jobs at one time. The two Economy Mixers will not cost any more than a single big machine of the same capacity, so your investment will be the same. The operating cost and depreciation on the two machines will be less and the two machines will, in most cases, be more practical for general use than one big one.

The Economy Will Mix Any Kind of Concrete and Do It Perfectly.

The Economy Will Mix Any Kind of Concrete and Do It Perfectly.

The drum of the Economy Mixer is fitted with half circular shape pocket raised a trifle from the sides of the drum to prevent caking of

fine concrete. This pocket elevates the larger stones in the mixture to a point where they fall back and mix properly with the finer materials. We tried out dozens of various shapes and sizes of blades and baffle plates, but in every instance there was a tendency for the larger stones to roll to the front while the finer materials settled at the back.

Trial Allowed.

We know the construction, workmanship and work done by the Economy Mixer will please you, so we ship every machine subject to trial, and if you are not satisfied with it after a thorough trial you can send it back at our expense and we will return the purchase price, together with all freight charges you paid. We take all the risk.

Let It Pay for Itself.

With one Economy Mixer and two men you can mix from 40 to 60 cubic yards of concrete a day and do it better than by hand. It would take three men from three to four days to do the same work, mixing with hoe or shovel. The Economy Mixer will save you enough in wages alone to pay for itself.

Prices of Economy Portable Concrete Mixers.

See next page for detailed specifications.

No. 44B6125 Economy Portable Concrete Mixer on small truck measuring 35 inches wide between wheel centers. Roller bearing wheels, 17 inches in diameter, 3½-inch tires. Complete with 2½-Horse Power Economy Gasoline Engine with built-in magneto. Shipping weight, 1,800 pounds.

Price, complete.....

Mixer on small truck ers. Roller bearing plete with 2½-Horse magneto. Shipping shipped from factory in CENTRAL OHIO.

No. 4486126 Economy Portable Concrete Mixer on large truck measuring 4 feet 8 inches between wheel centers, which is standard track. Roller bearing wheels, 18 inches in diameter, 3½-inch tires. Furnished complete with 2½-Horse Power Economy Gasoline Engine with built-in magneto. Shipping weight, 1,900 pounds.

Price, complete. \$138.95

Power Furnished on Economy Mixers.

We equip the Economy Portable Concrete Mixers with our famous 2½-Horse Power Economy Engine with built-in magneto which eliminates the use of batteries and all engine troubles caused by batteries. We guarantee that you can start the Economy Engine on the built-in magneto as easy as you can start any engine with battery. Being built in the engine all loese wiring is done away with. The engine will operate the mixer, under full load, on 2 to 2½ gallons of gasoline per ten-hour day. Each engine furnished with 8x4-inch pulley for other work and complete outfit of tools. lubricator, grease cups, can of oil and can plete outfit of tools. lubricator, grease cups, can of oil and can

plete outfit of tools, lubricator, grease cups, can of oil and can

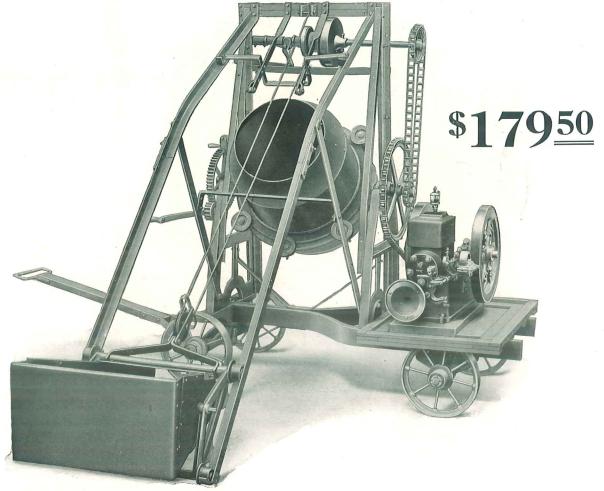
Economy Mixers Are Easily Discharged.

As shown in illustration, front shaft of drum is furnished with a large gear and pinion with crank. This provides a very easy and quick way to tilt the drum and discharge the mixture. To hold the drum firmly at any angle a simple locking device is provided, which engages with the dumping gear. enables you to vary the angle at which drum is operated, a very desirable feature when batches of various sizes or of varied ingredients are mixed. Drum can be loaded or discharged from either side. Mixer can be set alongside of forms and by use of a sheet of steel or iron the mixed concrete can be discharged and placed in the form direct from the mixer.



Economy Mixer With Side Loader

9



Detailed Specifications

DRUM—Heavy cast iron bottom, body of heavy sheet steel, measures 26 inches in diameter by 33 inches deep, holds 8 cubic feet. Mixing capacity, per batch, 3½ to 5 cubic feet of mixed concrete; one minute sufficient time for perfect mixture. Drum is driven by a pinion engaging with a cogged track or bull gear that can be easily removed and replaced, instead of making the drum bottom and cog track or bull gear as one casting, which makes an expensive replacement necessary in case of wear in this part. Drum operates in large grooved rollers with bronze bushings.

CAPACITY—40 to 60 cubic yards of perfectly mixed concrete per day.

CAPACITY—40 to 60 cubic yards of perfectly mixed concrete paday.

TRUCKS—All steel and iron. Main channel is 4x1½ inches. Cast bolsters, 1½-inch rolled steel axles. Roller bearing wheels, 17 inches in diameter, 3½ inches wide. Track or width between wheel centers, 35 inches on narrow truck, or standard track of 4 feet 8 inches if desired, as shown in price list. Draw-hound, hardwood with wrought iron connections. Power supplied by 2½-Horse Power Economy Engine, as described on preceding page. Power is transmitted from engine by heavy link belt, and six extra links are furnished so any accidental break can be replaced without delay. Link belt or chain drive has been proved by expert power transmission engineers to be more economical and as positive as gear drive. Any accident that would break the chain we use would be sufficient to break a gear on a gear driven machine. It is easier, quicker and cheaper to replace a broken chain

link or two than it is to replace a gear. Engine housing is made of sheet iron, attached in such a way that it can be opened on top and sides or removed entirely very easily for cleaning, inspecting or adjusting the engine.

Power Loading.

The power loading attachment greatly increases the capacity and ease of handling. The loader is hung to the left hand side of machine and the loading hopper holds one batch of materials, so a batch of materials can be placed in the loader while another batch is being mixed. This attachment increases the capacity of the Economy Mixer to 65 to 75 cubic yards per day. The loading hopper is elevated and discharged into mixing drum by a simple friction driven hoist and steel wire cables running through the proper equipment of power increasing pulleys.

pulleys.

Hoist is controlled by lever placed at front of machine and can be operated by the same man who controls the discharge lever. The loading hopper is pivoted on its carrier and tilts when it reaches the proper height, so that all material is dumped into mixer without pounding on the hopper. The track on which the loading hopper is elevated is made in two parts and can be swung up off the ground for transporting the machine or be removed entirely by taking out but two bolts. The loading device on the Economy Mixer is practically foolproof, very simple and durable.

Prices of Economy Portable Concrete Mixers.

Shipped complete from factory in CENTRAL OHIO.

No. 44B6128 Economy Power Concrete Mixer with side loader on small truck with 17-inch diameter, 3½-inch face roller bearing wheels. Track or width between wheel centers, 35 inches. Furnished complete with 21/2-Horse Power Economy Gasoline Engine with magneto equipment. Shipping weight, 2,300 pounds.

Price\$179.50

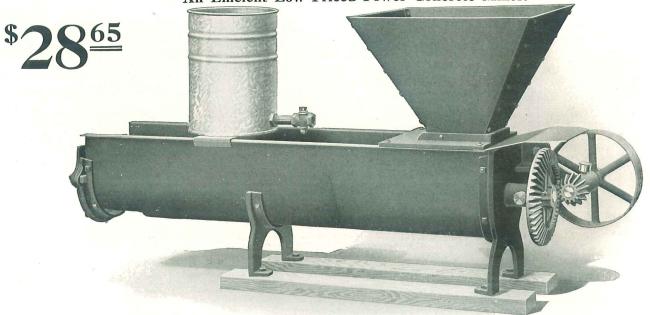
No. 44B6129 Economy Power Concrete Mixer with side loader on large truck with 18-inch diameter, 3½-inch face roller bearing wheels. Track or width between wheel centers, 4 feet 8 inches standard track. Furnished complete with 2½-Horse Power Economy Gasoline Engine with magneto equipment. Shipping weight, 2,400 pounds.

Price\$189.50 Showing loading hopper in dumping position. Note the angle of the hopper, which insures a clean discharge of all the contents.



Harvard Concrete

An Efficient Low Priced Power Concrete Mixer.



As shown in the illustrations, this mixer operates on the pug mill principle, which thoroughly mixes the concrete and distributes the moisture evenly throughout the mass. It is an efficient and reliable machine, adapted for the contractor on small jobs, for the farmer and for the concrete product manufacturer.

TO USE AS A BATCH MIXER. The hopper bottom is closed by a steel slide and the materials placed in the hopper in even layers. The mixer is then started and slide withdrawn.

TO USE AS A CONTINUOUS MIXER. The hopper bottom is left open and the cement, sand and gravel or stone are thrown into the hopper in proper proportions.

TO CLEAN THE MIXER have it in operation and throw in plenty of sand and water.

SPECIFICATIONS.

of sand and water.

SPECIFICATIONS.

HOPPER—Made of 16-gauge sheet steel. Size, 20 inches square at top, 15 inches deep. Capacity, 3 cubic feet. Securely riveted at joints and bolted to drum of mixer. Steel slide provided in bottom to control feed of materials.

MIXING DRUM—Made of 16-gauge hard rolled sheet steel. Measures 4 feet long, 12 inches wide. Ends of drum securely held in castings of ample weight, providing proper strength. Discharge is at bottom of drum, so concrete cannot be forced into end bearing of shaft.

MIXING BLADES—Held to 1¼-inch steel shaft by set screw and locked to each other by dovetail on blade. Designed to push material forward 4 inches and back 2 inches, which insures perfect mixing. Blades can be easily removed for replacement.

WATER SUPPLY is provided by a galvanized iron tank holding 3 gallons, mounted on a bracket, which can be moved forward or back on the drum so water can be added at any desired stage of the mixing. Tank is provided with brass water valve for controlling amount of water fed to the mixture.

TRANSMISSION is by means of heavy bevel gears, as illustrated. Pulley is 11 inches in diameter, 3-inch face, and should be driven at 125 to 175 revolutions per minute. Grease cups provided where needed. CAPACITY—Up to 25 cubic yards of mixed concrete per day, depending on number of men using machine.

MOUNTING—No. 44B5674 is mounted on skids, as illustrated, the mixer being supported by heavy castings securely attached to drum. The front support also forms the drum end and support for drive mechanism so that all is perfectly rigid. The truck we use for our mounted outfits has ample space and capacity for mounting a gasoline engine of 1½ or 2½-horse power size. Bolsters and axles are cast of steel in one piece. Wheels are 16 inches in diameter, 2½-inch face. Steel rims and spokes with cast hub.

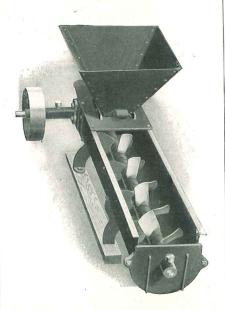
Shipped from factory in NORTHEASTERN IOWA.

PRICES.

PRICES.

No. 44B5674 Harvard Concrete Mixer on Skids. \$28.65 Shipping weight, 240 pounds.

No. 44B5675 Harvard Concrete Mixer on Truck. \$39.95 Shipping weight, 325 pounds.



Shipped From a Warehouse Near You.

Fargo, N. Dak.
Watertown, S. Dak.
St. Paul, Minn.
Omaha, Neb.

Kansas City, Mo.
Davenport, Iowa
Milwaukee, Wis.
Grand Rapids, Mich.
Evansville, Ind.
Columbus, Ohio

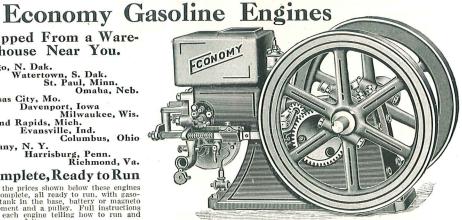
Albany, N. Y.
Harrisburg, Penn.
Richmond, Va.

Complete, Ready to Run

At the prices shown below these engines are complete, all ready to run, with gasoline tank in the base, battery or magneto equipment and a pulley. Full instructions with each engine telling how to run and take care of it.

Guarantee.

We guarantee Economy Gasoline Engines to always give you the service you have a right to expect, that they are made of the best materials by engine experts, that they are simple, economical in their use of fuel and will develop their full rated horse power according to brake test. We guarantee to replace defective parts at any time without extra expense to you and to always furnish repairs at lowest possible prices.



Shipped on Trial.

Anyone can run an Economy Gasoline Engine. Try one on your own work for as long as you want; if you are not satisfied in every way, if you find the engine is too small for your work, if for any reason you are not satisfied with the engine, we will exchange it at our expense for a different size or will return your money and any freight charges you have paid. You must be satisfied with the engine before you decide to keep it.

PRICES.

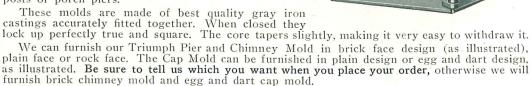
Looking down into the mixing trough of the Harvard Mixer. The mixing paddles push the concrete forward 4 inches and back 2 inches, which insures perfect mixing. No. 47815 1 1½-Horse Power Gasoline Engine with 4x4-Inch Pulley and Webster Magneto. You have Gasoline Engine with 4x4-Inch Pulley and Webster Magneto. 35.25 Weight. No. 47825 2½-Horse Power Gasoline Engine with 4x4-Inch Pulley and Webster Magneto. 39.95 Weight. No. 47825 1 2½-Horse Power Gasoline Engine with 3x4-Inch Pulley and Battery Equipment. 39.95 Weight. No. 47825 1 2½-Horse Power Gasoline Engine with 3x4-Inch Pulley and Webster Magneto. Weight. No. 47815 1 1½-Horse Power Gasoline Engine with 4x4-Inch Pulley and Webster Magneto. 46.95				
Looking down into the mixing trough of the Harvard Mixer. The mixing paddles push the concrete forward 4 inches and push the concrete f	ı		No. 47B15 11/2-Horse Power Gasoline Engine with 4x4-Inch Pulley and Battery Equipment. \$28.50)
the Harvard Mixer. The mixing paddles push the concrete forward 4 inches and push the concrete f		Lasting down into the mixing trough of		
push the concrete forward 4 inches and Weight, crated, 570 pounds. Price. No. 47R951 24-Horse Power Gasoline Engine with 8x4-Inch Pulley and Webster Magneto. 46 Q5			Weight erated 328 nounds Price	
back 2 inches, which insures perfect mixing. Weight, crated, 570 pounds. Price			Weight grated 570 pounds Price	
active and the states of the s			No. 478251 2½-Horse Power Gasoline Engine with 8x4-Inch Pulley and Webster Magneto.	j
		back 2 menes, which insures perfect mixing.	Weight, Crated, 370 pounds. Trice	
				mmin <u>r</u>
			DOUBLET LIVE GO GIVEN AND THE TAXABLE	

Triumph Pier and Chimney Mold

Makes Strong Chimneys at a Big Saving Over Other Methods.



Concrete is one of the best materials that can be obtained for chimney construction. Many large factories are using chimneys of reinforced concrete, and concrete chimneys built of blocks are very desirable on dwellings and store buildings. The mold, shown in the illustration, forms a section of the chimney complete at one molding. All four sides are alike. If you are building your own house it would pay you to buy this machine and make your chimney blocks on it. You can use the same blocks for supporting your porches and for your foundation. The cap mold makes stone suitable for finishing top of chimney, gate posts or porch piers.



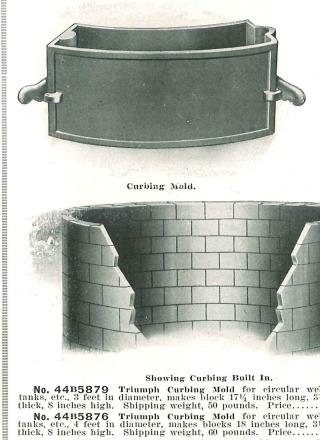
We can furnish a separate core to make opening in blocks for insertion of 6-inch stove pipe.

Chimney blocks can be made on any smooth floor, no pallets being necessary. Molds are shipped complete from factory in CENTRAL OHIO.



Be Sure to Give Catalog Number, Design and Price of the Size Mold You Want.

No. 44B5786 Chimney Cap Mold to match 16x20-inch chimney. Shipping weight, 50 pounds. Price............\$5.10



Curbing Mold.

Showing Curbing Built In.

Triumph Well Curbing Mold

Makes an Everlasting Well at Small Cost.

The demand for curved blocks for making well curbing or casing, water troughs, cisterns, or any curved wall, is steadily increasing and our Triumph Well Curbing Mold enables anyone to make up his own concrete blocks for this purpose. The mold is very simple and compact. It makes a block $3\frac{1}{2}$ inches thick, 8 inches high and from $17\frac{1}{4}$ inches to 201/2 inches long, depending on diameter of circle blocks are intended to make. As shown in the illustration, the ends of the blocks are made with a tongue and groove so each block will key into the next one, and when laid up with a cement mortar, consisting of one part cement and two parts sand, will make a waterproof wall. If you want to build a tank or trough to hold water it is advisable to use a waterproofing compound

in the concrete or apply a coat of rich cement mortar to the wall after it is completed. In building a tank above ground it is advisable to make a groove in the top of each block and in this groove lay a length of No. 9 wire as reinforcement. The reinforcement should be fully embedded in mortar when laying the blocks. Every concrete block maker should have one or more of these molds to supply his patrons with the necessary blocks for making well curbing, water troughs, cisterns and other curved walls. The mold is only made in plain face design and to make blocks that lay up in circles, 3, 4, 6 and 8 feet in diameter inside measure.

Be sure to order mold of proper diameter and state catalog number as given below.

No. 44B5879 Triumph Curbing Mold for circular well curbs, tanks, etc., 3 feet in diameter, makes block 17¼ inches long, 3½ inches thick, 8 inches high. Shipping weight, 50 pounds. Price.......\$3.75

No. 44B5876 Triumph Curbing Mold for circular well curbs, tanks, etc., 4 feet in diameter, makes blocks 18 inches long, 3½ inches thick, 8 inches high. Shipping weight, 60 pounds. Price......\$3.90

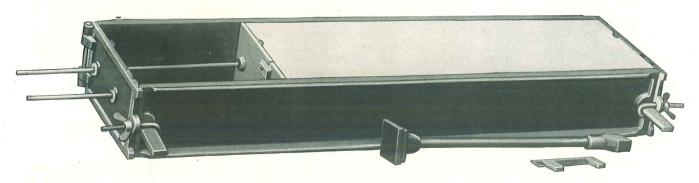
No. 44B5878 Triumph Curbing Mold for circular well curbs, tanks, etc., 4 feet in diameter, makes blocks 18 inches long, 3½ inches thick, 8 inches high. Shipping weight, 60 pounds. Price......\$3.80

All items on this page shipped from factory in CENTRAL OHIO.

Badger Adjustable Sill and Cap Machine

The Badger Adjustable Sill and Cap Machine is one of the most complete and desirable machines ever produced for the purpose of making window sills or caps, steps, water table and coping blocks. Our machine can be adjusted very easily for making stones of any length from 2 to 5 feet and in widths of 8, 10, 12 or 14 inches. Adjustments are made quickly by means of the stop off

plate with rods attached for the length and by small stop off pieces which can be attached or taken off the end plate for the width. Every concrete block maker should have one of these machines. There is good profit in the sale of caps and sills and they can be made economically. The proportion of profit on a stone of this kind is much greater than the profit made on building blocks.



Easy to Adjust for Any Size

To change the length, loosen the set screws in the set collars on the adjusting rods and set the end stop off plate to make whatever length of stone you want; slide the set collars up against the end door and tighten the set screws

To change the width, remove the stop off extension pieces by loosening the two screws, making a stop off piece as long as you want the stone to be wide. The front plate will then come up snugly against the stop off piece and is held in notches in the end doors at each end.

The Badger Machine makes stones 73/4 inches high, so that they lay up in the wall to match properly with blocks measuring 73/4 inches high or 8 inches with mortar joint.

The construction of the Badger Sill and Cap Machine is mechanically perfect in every respect. It is made throughout of the best gray iron castings and all parts are properly assembled and fitted so that it will make stone that is perfectly true to dimension and in shape. It is a very simple machine and can be adjusted for different sizes in less time than any other machine of its kind on the market. All the plates are heavily reinforced with ribs on the upper and lower edges, preventing any tendency to spring while tamping.

No Stand or Pallets Needed

No stand is required for the Badger Adjustable Sill and Cap Machine. The stones can be made on any smooth floor or plank. If you wish you can make the stone right in the wall, and no handling of the stone will be necessary. It is a great deal safer and easier to move the machine from a stone of the size that is made on this machine than it is to carry the stone from the machine, and you will find by comparison that our Badger Adjustable Sill and Cap Machine will make more perfect stones in less time than any other machine of its kind on the market. Our method does away with the expense of pallets which would have to be of 2-inch lumber to be of proper strength for a stone of the size made in this machine. This means a big saving in its use.

For making caps or steps we recommend that you use four or six pieces of 3/8 or 1/2-inch iron rod placed near the top and near the bottom of the stone to reinforce the stone. This will support a heavy load and will make a cap much stronger than a natural stone cap. If you are unable to get the iron rods you can make use of old pipe, heavy hoop iron or several strands of fencing wire twisted together. This can be straightened and placed in the stone. See next page for full information regarding ornamental work on this machine.

No. 44B5810 Badger Adjustable Sill and Cap Machine. Shipping weight, 180 pounds. Price. \$10.95

Shipped from factory in CENTRAL OHIO.



Showing how machine is opened to release from stone.



A cap, step or lintel stone as made on the Badger Machine.



A sill stone made by inserting wood block in mold to form watershed.



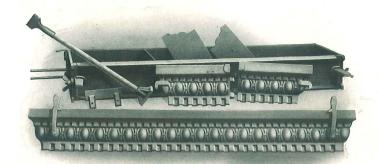
A water table stone made by placing a triangular strip in corner of mold.

We Do Not Furnish Wood Strip for Sill and Water Table as Illustrated. You Can Easily Make These Yourself.

Ornamental Work on the Badger Adjustable Sill and Cap Machine

A Valuable Addition to the Equipment of Any Concrete Manufacturer

For Complete Outfit.



For Complete Outfit.

With our Badger Sill and Cap Machine you are not limited to making stones in plain design only, as is usually the case with machines or molds of this kind. We can furnish face plates in many handsome designs, so that you can make fancy face sills or caps and use them for various kinds of ornamental work around the building, breaking up the monotony of using uniform size blocks throughout. Many ideas will suggest themselves to you.

The complete Sill, Cap and Coping Outfit illustrated above consists of our Badger Sill and Cap Machine, as described on preceding page, and a complete set of face plates, end doors and stop off pieces, in the beautiful egg and dart design, as illustrated above. The stop off pieces are used for making square end stone and fractional pieces any length up to 5 feet. Shipping weight, 300 pounds. Shipped from factory in CENTRAL OHIO.

No. 44B5814 Complete Sill, Cap and Coping Outfit, including sill and cap machine complete, egg and dart design face plate, pair of end doors and stop offs.

Price, for complete outfit.....

Special Face Design for the Badger Sill and Cap | Egg and Dart Coping Attachment for the Badger Sill and Cap Machine.



Showing Egg and Dart Coping Attachment fitted to Badger Sill and Cap Machine for making egg and dart coping stone with return end for corner. This attachment includes ends for right or left return and stop off pieces for both ends, so blocks of any length up to 5 feet can be made with square end or return end.



This illustration shows method of opening sill and cap machine leaving stone on the floor where made until hard enough to move. This is a quicker and easier way than to take the block from the machine and does away with the necessity of expensive pallets such as are required on many similar molds.



The completed Egg and Dart Design Coping Stone as it appears ready to put on the wall.

This attachment, as described, weighs 130 pounds complete, packed for shipment, and is shipped from factory in CENTRAL OHIO. No. 44B5815 Egg and Dart Design Coping Attachment.

Machine.

The extra face plates listed below enable you to make ornamental door and window cap stones which are also adapted for ornamental belt courses around a building.



A Rock Face design Cap or Lintel Stone, as made in our Badger Sill and Cap Machine with extra Rock Face plate.



A Panel Face design Cap or Lintel Stone, as made in our Badger Sill and Cap Machine with extra Panel Face plate.



A Tooled Face design Cap or Lintel Stone, as made in our Badger Sill and Cap Machine with extra Tooled Face plate. This is an exceptionally good design for window caps and sills.



A Scroll Face design Cap or Lintel Stone, as made in our Badger Sill and Cap Machine with extra Scroll Face plate. This makes a beautiful block to use as a belt course around a building.

To turn corners in any of these designs put a strip of wood or steel across one corner of the mold box and make mitered ends on the stone. All these extra plates weigh 55 pounds each, and are shipped from factory in CENTRAL OHIO.

No. 44B5811 Extra Face Plates. State design wanted.



Wizard Porch Column Outfit

This ornamental column mold outfit was designed with a view to furnishing something out of the ordinary in the way of a beautiful porch column, and we believe that all who admire fine porches will agree with us when we say that we have succeeded in producing a set of molds that are not excelled by anything on the market.

A porch built up of columns like the one illustrated, and with baluster and railing made on our baluster and rail molds, shown on page 36, will add greatly to the appearance and value of any house, whether of concrete block, brick, stone or frame construction. As this column is made in several sections it is much easier to handle the molds and the finished product than it is to handle the large heavy monolithic ornamental column molds usually sold. When the various sections are laid up with cement mortar the joints can be concealed very easily and the resulting column has the appearance of one solid piece. By using a wood core the urn part of column can be used for making a small vase or flower pot. The entire column and pedestal, as illustrated, is made up of products from ten molds, but as this is practically two outfits combined and each outfit can be used in combination or separately in various ways for making porch columns, gate posts, pedestals, tombstones, etc., which will be suggested to the operator in using them, we have listed each outfit separately and both together as one outfit, so you can select just the outfit you need for your requirements. Note our description carefully and in ordering be sure to mention design, where needed, catalog number of outfit selected, and correct price. These molds are sold under our usual "money back if not satisfied" guarantee and all molds are guaranteed to be well made of best castings accurately fitted and assembled, so the product will be first class in every respect. All are shipped from our factory in CENTRAL OHIO.

No. 44B5843 Complete Wizard Pedestal and Column Outfit. Shipping weight, \$37.65

This outfit consists of No. 44B5841 Wizard Column Outfit and No. 44B5842 Wizard Pedestal Outfit, described below.

No. 44B5841 Wizard Column Outfit. Shipping weight, complete, 200 pounds.

This outfit consists of seven molds to make column placed on pedestal in accompanying illustration, the various molds measuring as follows, commencing at top of column: Column cap is 13\% inches square, 4\% inches singli; O. G. ring mold, 10\% inches in diameter at top, \$\% inches in diameter at bottom, 4\% inches high; top ring mold is 10\% inches in diameter; 2\% inches high; top ring mold is 10\% inches in diameter at top, 10 inches in diameter at bottom, 29 inches high; lowering mold above urn is 12 inches in diameter at top, 10 inches high; urn is 13\% inches in diameter at widest part, 11\% inches in diameter at bottom and 11\% inches ingli; round base is 14 inches in diameter, 3\% inches high. The entire column laid up with \%-inch mortar joint will be 60 inches high.

No. 44B5842 Wizard Pedestal Outfit. Shipping weight, complete, 225 pounds. \$14.95

This outfit consists of three molds as follows, com-This outfit consists of three moids as follows, commencing at top of pedestal: Pier or pedestal cap mold measures 16 inches square at bottom, 18 inches square at top and 4 inches high. Can be furnished in egg and dart design, as illustrated, or in plain design, if and dart design, as illustrated, or in plain design, if desired. Please state which is wanted. Pedestal body mold is 16 inches square and 7% inches high. Can be furnished in panel design as illustrated or in plain rock, tooled edge rock, tooled edge bushhammer, all tooled or cobblestone. Be sure to say which design you want when you order, otherwise we send panel design. Base mold measures 16 inches square at top, 18 inches square at bottom and 5½ inches high.

All measurements are exact. No allowance for mortar joints except as noted.

NOTE—Be sure to mention designs if you want a change made in the outfit, otherwise we will furnish designs as

Jardiniere or Flower Pot Molds

Easy to Make. Very Ornamental. Sell Readily.

The illustrations show the product of these new and original molds for making concrete jardinieres or flower pots. Every lover of flowers or small shrubs will want one or more of these jars for porch decoration. They can be made at small cost and will sell readily for from 50 to 75 cents each.

These molds are well made of best gray iron castings, well fitted and held together by simple locking devices which hold securely, yet are easily released. They are furnished with core and make jars of various sizes as given below and in designs only as listed.

Very pleasing results can be had by using white sand and white cement, cement coloring, mica spar crystals or crushed marble and granite with cement for making these jars. filling the lion head design with a fine facing mixture before making the body of the jar so that all the detail will be brought out. Made in five sizes and two designs as listed below. Order by catalog number. Shipped from factory in CENTRAL OHIO.





Fleur de Lis Design.



Lion Head Design.

Low Priced Molds for Porch Columns, Gate Posts and Piers

Every Concrete Manufacturer Should Have Them

Our Triumph Molds for porch columns, gate posts, piers and ornamental work are high grade but low priced molds, and although our prices are about one-half what is usually asked for molds of similar design we guarantee the quality of material and workmanship to be perfect. These molds, of course, do not compare in finish with our Unique Molds, which are fully described on pages 36 and 37, but we can recommend them to those who want a lower priced porch making equipment.

Big profits can be made with proceed forch as the court his page and on pages.

Big profits can be made with an outfit such as we show on this page and on pages 36 and 37. The porch column and gate post illustrated are examples of what can be done with our regular outfit. This class of material commands a higher price and

hence yields bigger profits than concrete blocks or brick.

GUARANTEE—All our porch molds are made of the best quality gray iron castings, accurately fitted together. We agree to replace without charge to the customer,

any part which gives out on account of defect in material or workmanship.

Look at the saving you make when you buy a complete outfit. The Triumph Porch Outfits contain the following molds from our regular stock, which sell at prices shown

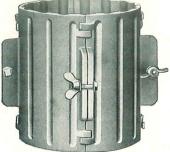
1	Price When Bought Separately	
	For 10-Inch Column	For 12-Inch Column
1 Column Mold. State whether plain or fluted 1 Column Cap and Base Mold		\$ 5.25 4.25 2.73 4.95 5.95
Total cost if bought separately Price when outfit ordered complete	\$18.17 16.75	\$23.13 21.60
Saving you make		\$ 1.53
De como de contrata de la como de contrata la	and the control of the Cities	no moun and an If not

Be sure to specify designs you want so no mistake will be made in filling your order. If not otherwise ordered we will furnish fluted column mold, rock pier body mold, and ornamental ball

Price List Triumph Porch and Gate Post Outfit.

No. 44B5776 Triumph Porch Column and Gate Outfit for 10-inch column. Shipping





This mold is well made of accurately fitted castings and can be assembled or taken apart easily and quickly. Furnished in two sizes, as listed, and in either fluted design as illustrated, or plain design. Mention which you want. Fluted design furnished unless otherwise ordered.

No. 44B5770 Triumph Column Mold,

No. 44B5770 Triumph Column Mold, 10 inches in diameter, 12 inches high. State whether plain or fluted is desired. Shipping weight, 45 lbs. Price.....\$3.79 No. 44B5771 Triumph Column Mold, 12 inches in diameter, 12 inches high. State whether plain or fluted is desired. Shipping weight, 65 pounds. Shipping weight, 65 pounds.

Triumph Ring Mold.



Placed in between column sections as illustrated above, it adds to the beauty of the column. Also used as supporting slab for small vases and other ornamental work.

No. 44B5773 Triumph Ring Mold to match 10-inch column. Shipping weight, 20 lbs.

Price \$2.15

No. 44B5772 Triumph Ring Mold to match 12-inch column. Shipping weight, 30 lbs.

Price \$2.73

Triumph Column Cap and Base Mold.



Forms cap or base of column as illustrated ove. Can also be used under small vases and

Triumph Pier Molds.



A well made mold for making square blocks used for porches, foundation piers, gate posts, etc. Three corners are bolted together with hinge joints and one corner pinned as illustrated. To release mold from stone pull out pin and open away from stone. Furnished in the following designs: Rock, plain, panel, tooled, tooled edge rock, tooled edge bushhammer or cobblestone. Be sure to order design you want.

Ball Molds

These molds are well fitted and furnished in two designs and sizes as described. They are designed to release easily and without damaging the finished product.

No. 44B5778 Ornamental Ball Mold to match 10-inch column. inches in diameter; height, 12 inches; ball, 9½ inches in diameter. weight, 50 pounds. Price.

No. 44B5779 Ornamental Ball Mold to match 12-inch column. Base, 14 inches in diameter; height, 14 inches; ball, 11 inches in diameter. Shipping weight, 65 pounds. Price. \$5.95

No. 44B5797 Plain Ball Mold to match 10-inch column. Ball, 6 inches in ameter; base, 6 inches square; total height, 12 inches. Shipping weight, about pounds. Price. \$4.29

No. 44B5798 Plain Ball Mold to match 10-inch column. Ball, 10 inches in ameter; base, 12 inches square; total height, 16 inches. Shipping weight, about pounds. Price. \$4.49

No. 44B5799 Plain Ball Mold to match 12-inch column. Ball, 10 inches in ameter; base, 14 inches square; total height, 18 inches. Shipping weight, about pounds. Price. \$4.85 BALL MADE IN OUR ORNAMENTAL BALL MOLD.

All molds listed above shipped direct from factory in CENTRAL OHIO.

STARS ROEBUCK AND CO., CHICAGO, ILLINOIS.

25 PLAIN BALL MOLD.

STARS ROEBUCK AND CO., CHICAGO, ILLINOIS.





nique Porch Column Outfits

To Make Porch Columns, Piers and Balustrades Your plant is not complete without them and you lose money if you do not add molds to your equipment for this class of work. You can easily create a big demand for porch material and the profits are large.

A Few Business Getting Suggestions.

Get an outfit of porch molds and make up a full set of stones for one porch. Set these in your yard where they can be seen by people passing by. When a customer calls to order blocks, show him the porch material and call his particular attention to the low cost and beauty of it. Advertise in your local papers. Direct your advertisements to home owners, real estate men, contractors and builders. Call on the owners of frame buildings and buildings with wood porches, show them how the building can be improved by erecting a handsome concrete porch which will not require painting or repairing and adds to the value of the house. There is a great deal of business to be gotten in this way. Our general information book tells how to lay up porch products to get the best results, and many concrete manufacturers make additional profit by laying up their own products.

Save Money on Your Equipment

By assembling these outfits in large quantities we are able to make a saving, which we give you. Save money by buying a complete outfit which will enable you to furnish a complete line of handsome porch materials.

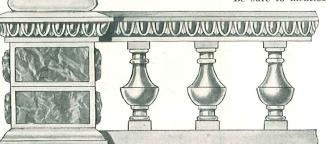
All these molds are fully described and priced separately below and on the following page.

The size of each mold is made to match the other molds in the outfit, so the completed porch will be symmetrical. Each outfit contains the following molds:

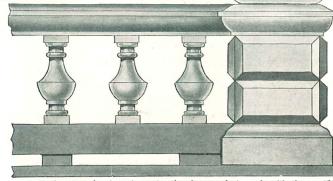
	Price if Bought Separately	
	10-Inch Size	12-Inch Size
One Combination Plain and Fluted Column Mold	\$ 7.95	\$ 9.25
One Baluster Mold Complete	1.90	30055555555555555555555555555555555555
One Baluster Pallet	95	95
One Ornamental Capital Mold	7.25 3.25	7.85
One Column Base Mold,	3.25	4.25
One Pier Body Mold	3550 645255 44444 4444	4.95
One Pier Cap Mold	4.45	4.95
One Pier Base Mold	4.50	4.70
One Top Rail Mold	4.25	4.25
One Bottom Rail Mold	4.95	4.95
One Watershed Block Mold	.25	.25
One Core for forming recess for top rail in pier cap	.15	.15
One Core for recess in rails for baluster ends	.15	.15
		\$48.55
Price for outfit complete	39.95	43.95
Saving if bought together	\$ 4.70	\$ 4.60
	for 10 inch	olyman Chic

No. 44B5830 Unique Porch Outfit, nine molds, complete for 10-inch column. Ship-.\$39.95

Be sure to mention design where necessary.



The above shows what a handsome porch can be made with these outfits, using composite Capital Mold. Fluted Column Mold, Rock Face Pier Body and Egg and Dart Pier Cap and Rail.

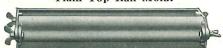


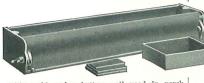
Another example of porch construction from products made with these outfits, using our Ionic Capital Mold, Plain Column, Panel Pier Body and Plain Pier Cap and Rail.

Complete Balustrade Outfit.

Egg and Dart Top Rail Mold.







Bottom Rail Mold.

Makes an attractive and beautiful rail. Used in porch work, ornamental fence and baluster rails for bridges, terraces, lawns, etc. Illestiration of porch column above shows appearance of product of this mold. Stone is 4 inches lngs, 5% inches wide at tool, 4 inches wide, 12 inches long, A cubic yard of concrete will make 200 feet of this rail. Shipping weight, 40 pounds.

Plain Top Rail Mold.

Plain Top Rail Mold.

Plain Top Rail Mold.

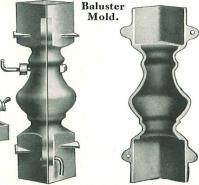
Plain Top Rail Mold.

This mold is same size as the egg and dart mold described above. Porch rail to the right in large illustration above shows the finished product. A cubic yard of concrete will make 200 feet of this rail. Shipping weight, 40 pounds.

No. 44B5853 Plain Top Rail Mold. Price.......\$4.25

All molds listed above are shipped direct from factory in CENTRAL OHIO.

SEARS, ROEBUCK AND CO., CHICAGO, ILLINOIS.



Unique Porch Molds

For Columns Each mold is complete as illustrated and fitted ready to make the various parts of a column or pier. Make the stones on any flat surface. No pallets needed. For Piers

Ionic Capital Mold.



The design of these molds is a deep cut handsome one and makes a product that has the appearance of cut stone. The deep portions are so placed and designed as to release easily. Matches up perfectly with columns of 10 inches and 12 inches in diameter. A cubic yard of concrete will make twenty-seven capitals for 10-inch column or eighteen for 12-inch column. Be sure to order correct size.

No. 4485836A Ionic Capital Mold for 10-inch column. Makes cap 9 inches high. Shipping weight, 65 pounds. Price.

Sn. 4485846A Ionic Capital Mold for 12-inch column. Makes cap 10 inches high. Shipping weight, 80 pounds. Price.

\$7.25

Composite Capital Mold.



Combination Column Mold.



Column Base Mold.



This mold forms a round base stone in the popular O. G. curve and should be used under all round columns to give the job a perfect finish. Can also be used as cap stone. Be sure to order the size you want. A cubic yard of concrete will make sixty-nine 10-inch bases or fifty-one 12-inch bases.

No. 44B5834 Column Base Mold for 10-inch column; 5¾ inches high and 14 inches in diameter. Shipping weight, 40 pounds. Price. \$3.25
No. 44B5844 Column Base Mold for 12-inch column; 6 inches high and 16 inches in diameter. Shipping weight, 60 pounds. Price. \$4.25

Egg and Dart Pier Cap Mold.



This mold makes a square stone, used as a cap on a square porch pier or column. Be sure to order the correct size.

Plain Pier Cap Mold.



This mold will make about the same number of stones to the yard of concrete as Egg and Dart molds above.

No. 44858168 Plain Pier Cap Mold, 13 inches square at bottom, 15 inches square at top, 4 inches high. To be used on pier 12 inches square. Shipping weight, 30 pounds, Price....\$4,25

No. 44858398 Plain Pier Cap Mold, 15 inches square at bottom, 17 inches square at top, 4 inches high. To be used on pier 14 inches square and in connection with round column 10 inches in diameter. Shipping weight, 40 pounds. Price....\$4,45

No. 44858498 Plain Pier Cap Mold, 17 inches square at bottom, 19 inches square at top, 4 inches high. To be used on pier 16 inches square and in connection with round column 12 inches in diameter. Shipping weight, 50 pounds. Price....\$4,65

Square Pier Mold.



This mold is furnished in the following designs: Rock, plain, panel, tooled edge rock, tooled edge bushhammer or cobblestone. Be sure to state design you want. Rock design furnished unless otherwise state de specified.

No. 44B5817 Pier Mold, 10 inches square, 7¾ inches high, with core 6 inches square. Makes ninety-one to the cubic yard of concrete. State design wanted. Shipping weight, 50 pounds. Price.....\$3.95

No. 44B5833 Pier Mold, 12 inches square, 7¾ inches high, with core 6 inches square. Makes fifty-forr to the cubic yard of concrete. State design wanted. Shipping weight, 60 pounds. Price....\$4.35

No. 44B5838 Pier Mold, used with 10-inch round column, 14 inches square, 7¼ inches high, with core 8 inches square. Makes thirty-six to the cubic yard of concrete. State design wanted. Shipping weight, 75 pounds. Price.....\$4.65

No. 44B5848 Pier Mold, vsed with 12-inch column, 16 inches square, 7¼ inches high, with core 8 inches square. Makes thirty-one to the cubic yard of concrete. State design wanted. Shipping weight, 100 pounds. Price.....\$4.95

Pier Base Mold.



Makes a square base stone in the popular O. G. pattern, on which to build piers, gate posts and square columns. Be sure to order the size you want.

No. 44B5840 Pier Base Mold to match pier blocks 12 inches square. Measures 12 inches square at the top, 15 inches square at the bottom and 5½ inches high. Makes forty-one to the cubic yard of concrete. Shipping weight, 40 pounds. Price......\$4.35

No. 44B5837 Pier Base Mold to match pier blocks 14 inches square. Measures 14 inches square at the top, 17 inches square at the bottom and 5¼ inches high. Makes thirty-two to the cubic yard of concrete. Shipping weight, 45 pounds. Price.....\$4.50

No. 44B5847 Pier Base Mold to match pier blocks 16 inches square. Measures 16 inches square at the top, 19 inches square at the bottom and 5½ inches high. Makes twenty-six to the cubic yard of concrete. Shipping weight, 65 pounds. Price....\$4.70

All these molds are shipped from factory in CENTRAL OHIO.

The Big Six Column Outfit

This outfit consists of six of our handsome Unique Column Molds, described on page 37, and will make a very beautiful porch column. Illustration to the left shows the various molds in the outfit and illustration to right shows a complete column as made with this outfit. The large columns shown in our cover design also illustrate the products of this outfit.

All molds are made of high grade castings properly fitted and are guaranteed to be perfect in material and workmanship. Each outfit consists of the following molds:

One Ionic Capital Mold.

One Combination Plain and Fluted Column Mold.

One Column Base Mold.

One Pier Cap Mold. Egg and Dart design.

One Pier Body Mold. Panel design.

One Pier Base Mold.

Each mold is of proper size to match column and is as described on page 37. If design other than as specified above wanted, be sure to mention design wanted when you write your order.

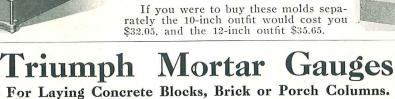
Shipment is made direct from factory in CENTRAL OHIO.

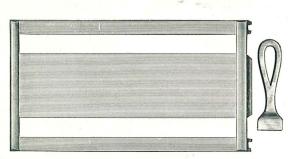
No. 44B5819 Big Six Column Outfit for columns 10 inches in diameter. Complete as described. Shipping weight, 375 pounds.

No. 44B5820 Big Six Column Outfit for columns 12 inches in diameter. Complete as described. Shipping weight, 525

Price.....\$33.85

Buy an Outfit and Save Money.





These tools enable the amateur worker to make a perfect job of laying blocks and enable the expert to lay them faster, easier and better than by any other method. In addition the face of the wall is kept clean and a groove of even width and depth is had between the blocks, forming a secure anchor for the beading or tuckpointing. Two gauges are furnished, one for the horizontal bed of mortar and one for placing mortar on the ends of the block.

The horizontal gauge is made with a flange on one side which is placed against the side of the block. The openings are filled with mortar and then struck off with a straight edge trowel and the gauge removed. This leaves an even line of mortar on the front and back of the block exactly ¼ inch thick ready for the placing of the block. The end gauge is used in much the same manner, flange being pressed up against the side of the block, the mortar spread in the two openings of the gauge and struck off. The tool is removed, leaving exactly ¼ inch of mortar on the ends of the block ready for the next block to be placed up against it. End gauge is also fitted with level glass.

and are very or detached from the horizontal gauge, approach is place on or take off from the block is also place on or take off from the place and severyder one.

The Triumph Mortar Gauges are made of aluminum and are very light and easily handled yet strong enough to stand everyday continual use. The tools are carefully finished and sized. With each set of block tools we include a reversible handle, which is instantly attached number and including the proper price.

Price List of Triumph Mortar Gauges.

Mortar Gauges for Concrete Blocks.

Each set consists of one horizontal gauge, one vertical gauge and one reversible handle.

No. 44B5694 Triumph Mortar Gauge for laying blocks 8 inches thick. Shipping weight, 6 pounds. Price, per set......\$4.95

No. 44B5695 Triumph Mortar Gauge for laying blocks 9 inches thick. Shipping weight, 7 pounds. Price, per set......\$5.95

No. 44B5697 Triumph Mortar Gauge for laying blocks 9 inches thick. Shipping weight, 10 pounds. Price, per set......\$6.40

Shipped from factory in CENTRAL OHIO. 3





Block Made With Rock Design Orna-mental Pallet.



Block Made With Panel Design Orna-mental Pallet.



Block Made With Scroll Design Orna-mental Pallet.

The Owl Lattice Block Mold

The Owl Lattice Block Mold makes an ornamental block that is suitable for many classes of ornamental work, such as enclosing the space under a porch, making porch or garden fences, cemetery fence, and for many other purposes which will suggest themselves when you use the mold.

The blocks made in this mold are 16 inches long, 8 inches high and 4 inches thick. By placing small blocks of wood under the pallet you can raise it up into the outside mold to make blocks 2 or 3 inches thick as desired.

The illustrations at the right clearly show this outfit and method of operation.

For ornamental work we can furnish extra iron pallets in the following designs: Rock design, panel design and scroll design. Be sure to order and allow enough money for any extra ornamental pallets you may want; but one of each kind is required, which is removed as soon as block is turned over and mold withdrawn.

Price includes outside mold, cores, plain iron pallet or stripping plate, sample wood pallet and tamper.

Shipped from factory in CENTRAL OHIO. No. 44B5792 Owl Lattice Block Mold,

complete. Shipping weight, 60 pounds. Price......\$5.35

No. 44B5793 Ornamental Pallet or Stripping Plate for lattice block mold. Shipping weight, 10 pounds. Price...... 1.65



The Owl Lattice Block Mold complete with parts arranged in regular order to prepare mold for making a block. The pallet is dropped down on the cores and then outside mold placed on the offsets on the cores and it is ready to be filled. Block is made face down.

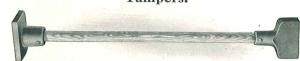


Block as Made in This Mold.



The mold turned over on a wood pallet and core being withdrawn. Note how iron pallet now forms a stripping plate which prevents damage to stone while pulling cores and outer easing. If desired block can be turned over on any smooth surface, the wood pallet being unnecessary unless you wish to carry finished blocks away from mold.

Tampers.



Extra tampers for making blocks and other products. Well made of No. 1 gray iron castings, nicely finished and securely mounted on hardwood handles. We have two sizes. Be sure to order correct size.

No. 44B5676 Regular Double End Tamper. Blunt end measures 21/8 inches wide and 1/2 inch thick; large end measures 21/2 inches wide and 4 inches long. Shipping weight, 5

No. 44B5677 Extra Heavy Double End Tamper. Blunt ight, 9 pounds. Price......\$1.00 All tampers shipped from factory in CENTRAL OHIO.



Mark Your Blocks.

In many localities the law requires all blocks to be marked with the initials or name of the block manufacturer as a means of identification. The stamp here illustrated is a simple but efficient way of doing this. The letters are 3 inches high, of plain block type, designed so they will mark

type, designed so they will mark the concrete and withdraw easily and leave a perfect impression. Can be furnished in stamps of single letters, as shown, or will make one stamp of several letters. Mention which is wanted when ordering, otherwise will furnish all on one stamp. Letters are reversed so they will show properly when impressed in the block. Weight, single letter stamp, 4 pounds. Additional letters will add about 2 pounds per letter. When ordering print letters desired carefully so no mistake will be made.

No. 30B2022 Concrete Gray
No. 30B2023 Buff Stone
No. 30B2024 Brown Stone
No. 30B2025 Moss Green
No. 30B2026 Brick Red
PRICES FOR ABOVE COLORS:

1/2 Gallon 1 Gallon 5 Gallons Shipping Shipping



Triumph Lattice Block Mold.

This is a very simple mold, making blocks suitable for lattice or porch work; makes blocks 4 inches high, 5 inches wide and 16 inches long. Mold is made up of four parts held together with thumb-screws, as illustrated. Can be fur-

nished in panel design, as shown, plain design or rock design. Please state which you want when you order, otherwise we send panel design. Shipping weight, 30 pounds. Shipped from factory in CENTRAL OHIO.

No. 44B5672 Triumph Lattice Block Mold. Price....\$2.48

Concrete or Stucco Paint For Cement Floors and Walls.

For Cement Floors and Walls.

Our New Concrete or Stucco Paint provides a most efficient and durable dampproofing treatment for exterior masonry surfaces. It penetrates into the pores of the surface and on hardening thoroughly seals them, preventing any possibility of the absorption of water into the treated area. The distinctive appearance of a masonry surface is entirely retained by the use of this stucco paint. It equalizes the color of the surface and imparts a finish of stonelike texture of a most artistic and attractive nature. It not only excludes dampness from the wall, maintaining a perfectly dry and sanitary condition on the interior, but it prevents all tendency of the treated area to become stained and unsightly.

This paint is especially adapted for pointing the surface and in the condition of the surface and in the surface are surface and in the surface and in

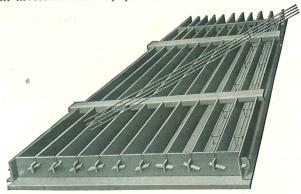
This paint is especially adapted for painting cement floors. By forming a tough film over the surface it prevents the cement dust from accumulating and keeps the floor sanitary and clean. Covers approximately 100 square feet, two coats per gallon, on the average porous surface. It is easily applied and retains its original color. For sample shades see our Paint Color Sample Book.

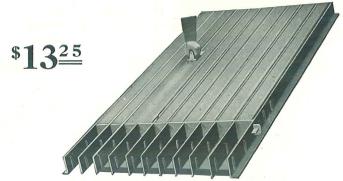
No. 30B2021 White No. 30B2022 Concrete Gray



Adjustable Gang Molds for Concrete Fence Posts

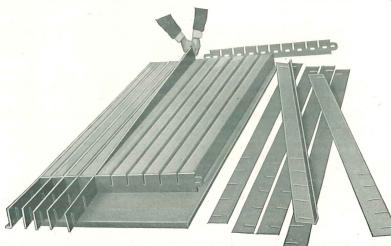
The post making equipment listed below will make posts as fast as any system on the market and requires a comparatively small investment for equipment.





This shows an outfit of molds set up with reinforcement in position for the first two posts. Reinforcement may be stirruped together as illustrated, or any plain reinforcement may be used and laid in the concrete as the mold is filled.

After a gang of molds has been filled the edges of the posts are rounded with a sidewalk tool or trowel, or they can be left square, just as desired.



The concrete is allowed to set for about two hours, then the keys holding the form together are removed and the dividing plates forming the mold sections are withdrawn, leaving the posts where made until hard enough to handle.

The fence post molds illustrated above are the most practical molds to use. They make a square post, which is the most practical and strongest concrete post. The mold is removed from the posts about two hours after the concrete is poured, making it unnecessary to have a large quantity of molds on hand. The posts are made from a wet concrete mixture, which makes the strongest post with the least curing. These molds are cheap enough for the farmer who merely wants to make posts for his own use, and are practical and fast enough for the contractor making posts for sale.

Construction.

These molds are made of No. 10-gauge sheet steel throughout. The two side rails are flanged on the bottom and supported on the top by cross yokes as illustrated, holding the parts in perfect alignment. The division plates are held securely in proper position by slots in the cross yokes and end pieces and in addition are keyed to the end pieces by wedge shape flat steel key, which locks the form as a whole perfectly tight.

Method of Using.

The form is set together on any smooth floor whether of concrete, wood or metal. The concrete mixture should be made of a mixture of one part cement, two parts clean sharp sand and three to four parts of clean gravel or crushed stone not larger than ½ inch. This should be mixed thoroughly and enough water added so it can be puddled in place with a stick or spade without tamping.

Reinforcement.

Necessary in all fence posts. This may be any standard fence post reinforcement, which may be laid in the mold near each corner as the concrete is placed, or it may be stirruped together as illustrated above, which insures proper placing. Two pieces of No. 10 wire twisted together, cut to length and straightened, placed in each corner, make a very good reinforcement and we can furnish wire with these molds at prices shown below. The solid reinforcement quoted on the following page can also be furnished if you can use 7-foot lengths.

Size.

These molds make posts 41/2 inches square at the bottom and 31/2 inches square at the top. They are adjustable in length to make posts

Quantities of Material Required to Make Posts.

	For 100	For 100	For 100
	6-Foot Posts	7-Foot Posts	8-Foot Posts
Cement	3¾ barrels 1 cubic yard 2 cubic yards	4½ barrels 1¼ cubic yards 2½ cubic yards	

You can easily figure what posts will cost you to make by ascertaining what materials, as listed above, will cost in your town. The quantities mentioned are more than sufficient to make 100 posts of the sizes mentioned. Four sets of these molds will be sufficient to keep two men busy making posts, and they should make from 100 to 250 posts per day, depending on whether the five-gang or ten-gang mold is used and the convenience with which the materials are placed.

Price List.

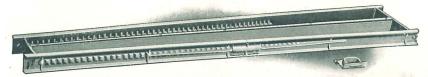
These molds and reinforcements are shipped from factory in CENTRAL NEW YORK.

No. 44B6105 Five-Gang Adjustable Post Mold. Makes five posts at one setting. Shipping weight, 130 pounds. Price........\$7.95
No. 44B6110 Ten-Gang Adjustable Post Mold. Makes ten posts at one setting. Shipping weight, 225 pounds. Price.......\$13.25

No. 44B6107 Reinforcement for 7-Foot Posts. Made up of two two lines 1/4-inch wire twisted together, cut to length and straightened. tup in bundles of 100 pounds, sufficient for forty-four posts. Price, per 100 pounds. \$3.10

No. 44B6108 Reinforcement for 8-Foot Posts. Made up of two pieces ½-inch wire twisted together, cut to length and straightened. Put up in bundles of 100 pounds, sufficient for thirty-eight posts. Price, per 100 pounds. \$3.10

Triumph Concrete Fence Post Molds



Illustrating our Double Mold clamped together ready to be filled with concrete. The small tool shown to the right is for forming the grooves into which the reinforcement is placed.

Wood fence posts are becoming higher in price and are hard to get. Steel posts have been tried, but they must be kept well painted to avoid rust. A good fence post must stand under all weather conditions, be strong to withstand shocks of animals coming against it, must

To release the post from this mold the thumb bolts are loosened and the sides of mold open away from the post as shown above.

be low in price, easy to set, easy to attach and remove sides of mold open away from the post as shown above.

sides of mold open away from the post as shown above.

sides of mold open away from the post as shown above.

sides of mold open away from the post as shown above.

sides of mold open away from the post as shown above.

sides of mold open away from the post as shown above.

The Triumph Fence Post Molds shown herewith form a simple means of making good concrete fence posts. Anyone can be confirmed to the confirmed and the state of these molds.

make perfect posts by following our simple directions, and farmers particularly can make good use of these molds.

Concrete Posts Can Be Made Anywhere at Any Time.

You can make them on the barn floor or on any smooth planks or boards. They can be made out in the field or in the cellar. The Triumph Post Mold can be removed from the post as soon as it is made, allowing the post to lie where it was made until it has become hard enough to move, which takes from twelve to twenty-four hours, depending on the weather, after which you can stack it up for curing, which requires from fifteen to twenty days.

Construction.

The Triumph Fence Molds are made up of two pieces of channel shape casting, securely bolted together, forming the sides of the post, and the ends are formed by small castings fitting in grooves. The upper portion of the mold makes a series of knobs or buttons on the post, which prevents the wire from slipping up or down. These knobs or buttons require but little cement to make them and, unlike grooves or holes in a post, do not weaken it.

With a grooved post the material required to make the grooves is wasted because the post is no stronger. With a grooved post the material required to make the grooves is wasted because the post is no stronger than the strength of the narrowest portion between the grooves. The mold is securely held together by two thumb bolts and can be opened or closed in an instant.

Reinforcement.

All concrete fence posts must be reinforced to give the needed strength to withstand side blows, such as when cattle come in contact with the fence. For reinforcement you can use 3/16-inch iron rods, pieces of barbed wire or straight wire. We furnish a grooving block with each mold, which enables you to groove a place in the concrete for the reinforcement. These grooves bring the reinforcement the proper distance from the surface of the mold to provide the greatest strength and still have enough concrete around them to prevent rusting. For the convenience of those who require reinforcement we have listed it below in 100pound bundles, which we can furnish direct from our concrete machinery factory. You will probably be able to buy this reinforcement cheaper at home, as almost any straight iron will do, whether old or new. However, we handle the reinforcement for the accommodation of those who are unable to procure it elsewhere and our prices are as low as anyone can quote on new material suitable for this purpose.

To Attach Fencing.

Any style of wire fencing can be attached to posts made on these molds. Simply place your line wires between two knobs, attach a short piece of wire to the line wire on one side of post, bring this wire around on the other side and with the wire tie furnished with the mold twist it perfectly tight. The fencing can be removed at any time very easily should occasion requires.

Double Mold Recommended.

We recommend the purchase of the double mold, as this makes two posts at one filling, or just about twice as fast as the single mold. Posts are alike in size on either mold and both are guaranteed to give satisfaction.

Size.

We make the line post molds in one size only, to make a post 7 feet long, 3¼ inches thick, 5 inches wide at the bottom, tapering to 3¼ inches wide at the top. The large ends make a solid anchor when properly placed in the ground. The finished posts will weigh on an average about 75 pounds each.

Corner Posts.

The corner post mold measures 8 feet long and is made in the single style only. It makes a post 8¼ inches square at the top and is provided with an adjustable bottom plate to make bottom any size from 8½x0 inches to 8½x14 inches. These posts are especially adapted for corners, gates and ends of fences where the most strain comes.

Cost of Posts.

A good line post is made of a mixture of one part cement to two parts sand and four parts gravel. To make 100 posts requires the following material at prices shown, which are the average:

4 barrels cement at \$2.00 per barrel	\$8.00
3½ cubic yards sand and gravel at 75 cents	2.50
1 day's labor	2.00
Reinforcement at 8 cents per post	8.00
m to the second	

or about 2014 cents each, less than you have to pay for a good wood post. If the prices you pay for material are different, you can easily figure the cost from the above. When using the double mold the labor cost is reduced about one-third. Concrete posts can be sold at from 25 to 35 cents each, which realizes a good margin of profit. But one mold for each man is all that you require, as the mold is removed from the post as soon as made. All Triumph Molds and Reinforcement are shipped from factory in CENTRAL OHIO.

Price List.

The single mold,

No. 44B5896 Single Line Post Mold, complete with grooving block and wire tie. Shipping weight, 50 pounds each.

No. 44B5900 Double Line Post Mold, complete with groov-

ing block and wire tie. Shipping weight, 75 pounds each. Price, each.....\$6.95

No. 44B5899 Corner Post Mold, makes posts 8 feet long, 8½ inches square at top and any size from 8½x9 inches to 8½x14 inches at bottom. Shipping weight, 180 pounds.

No. 44B5897 Fence Post Reinforcement. Cut in 7-foot lengths and straightened, about 90 pieces to 100 pounds. Price, per 100 pounds.....

Price, in lots of 1,000 pounds or more, per 1,000 pounds 19.00



The machine is closed ready for the material which is thrown into the hopper of the tamper. The four cups shown on the rack are for handling the material, each cup containing enough for one tile. They are more convenient and therefore handled quicker than a shovel. The small tool shown is the ring trovel for finishing the top of the tile.

The Wizard Tile Machine

Makes Big Profits.

Concrete tile is superseding clay tile all over the country. It has been proven beyond all doubt that concrete tile is far superior to clay tile in every Concrete tile can be made and sold at a much lower price than clay tile, but at the same time the profits in its sale are much larger. Better

order one of these machines at once and be the first in the field.

A simple machine of quick action. The illustrations show the position of the various parts of the machine in the different operations of filling, tamping and releasing the tile. The machine is exceedingly simple and is entirely free from all complicated parts, so there is absolutely nothing about it to get out of order. The stand is made up of heavy castings securely fastened together. The best grade gray iron castings and cold rolled steel are used in the construction of the machine, giving it great strength. All parts are made interchangeable and can be replaced very easily if broken through accident. Any defective part will be replaced without extra charge.

Capacity.

The capacity of our Wizard Tile Machine is very big for a machine operated by hand. Two men and a boy can turn out from 900 to 1,100 Where a concrete mixer is used, and racks for conperfect tile a day. venient handling of tile are built, this capacity can be increased. no need for you to invest \$1,500.00 to \$2,000.00 in a power machine and engine to turn out a large quantity of tile. Buy two of our Wizard machines and a concrete mixer and with four men and two boys you will have a plant capable of turning out from 1,800 to 2,200 tile a day. You can make 4-inch concrete tile for less than 2 cents each and can easily sell them at from 6 to 8 cents each. Think of the big profit you make! You are losing money every day you are without this machine.

You Are in the Concrete Business for Profit

and you cannot afford to overlook the demand for concrete drain tile. They top of the tile.

are made easily and cheaply, as we have already explained, and they command a bigger percentage of profit than any other concrete product. Our Wizard Concrete Tile Machine will make more money for you than any other machine you can buy. Better send your order today and get started in this profitable business. If

crete Tile Machine. Two barrels of cement to 1 cubic yard of sand will make about 650 perfect 4-inch tile. This is a good strong tile, made up of a mixture of one part cement to three and one-half parts sand. Figure cement at \$2.00 a barrel, sand at 75 cents a cubic yard and labor at \$1.60 for

eight-hour day, your 650 tile will cost you: Cement, 2 barrels at \$2.00.....\$4.00 Sand, 1 cubic yard at 75 cents..... Two men, 8 hours each at 20 cents per hour.... 3.20

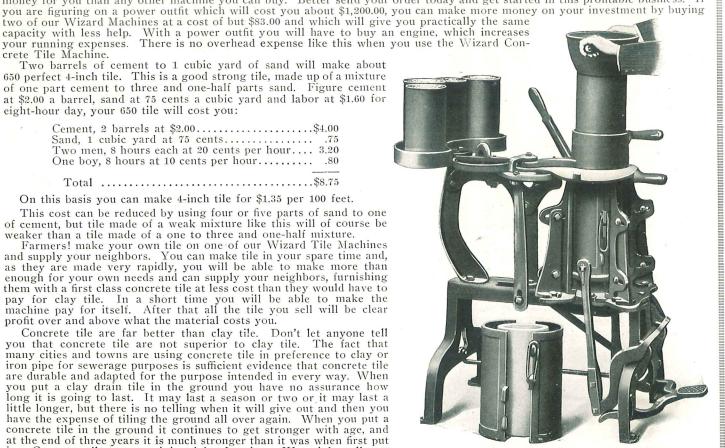
One boy, 8 hours at 10 cents per hour........................80 Total\$8.75

On this basis you can make 4-inch tile for \$1.35 per 100 feet.

This cost can be reduced by using four or five parts of sand to one of cement, but tile made of a weak mixture like this will of course be weaker than a tile made of a one to three and one-half mixture.

Farmers! make your own tile on one of our Wizard Tile Machines and supply your neighbors. You can make tile in your spare time and, as they are made very rapidly, you will be able to make more than enough for your own needs and can supply your neighbors, furnishing them with a first class concrete tile at less cost than they would have to pay for clay tile. In a short time you will be able to make the machine pay for itself. After that all the tile you sell will be clear profit over and above what the material costs you.

Concrete tile are far better than clay tile. Don't let anyone tell you that concrete tile are not superior to clay tile. The fact that many cities and towns are using concrete tile in preference to clay or iron pipe for sewerage purposes is sufficient evidence that concrete tile are durable and adapted for the purpose intended in every way. When you put a clay drain tile in the ground you have no assurance how long it is going to last. It may last a season or two or it may last a little longer, but there is no telling when it will give out and then you have the expense of tiling the ground all over again. When you put a concrete tile in the ground it continues to get stronger with age, and at the end of three years it is much stronger than it was when first put in. Concrete tile are not injured by freezing. We might tell you many more advantages of using concrete tile, but their value has been proven so many times by various authorities that we feel it is unnecessary. You can take our word for it. There is no better material than concrete for making tile.



The tile is partially completed and tamper is clearly shown The the is partially completed and tamper is clearly shown. This view also shows the retaining plate and hopper which retains all surplus material, preventing the scattering of it all over the floor, and making a great saving in the course of a day. The other jacket has just been released from a tile and method of clamping jacket together is clearly shown.

The Wizard Tile Machine

A very simple, yet efficient hand operated tile machine, made of high grade materials and assembled by expert workmen.

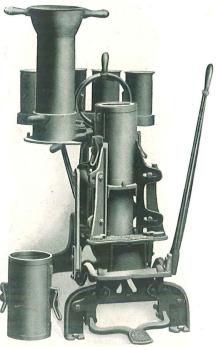
The machine is made throughout of No. 1 gray iron castings, with steel shafting where needed.

The frame is made of heavy reinforced castings securely assembled. All castings are perfectly fitted, well braced and firmly bolted together.

The core is of cast iron securely bolted to the frame and is immovable. By having the core stationary and by stripping the tile off it as we do, you are bound to turn out perfect tile every time. It is the only perfect way to make tile on a hand tile machine.

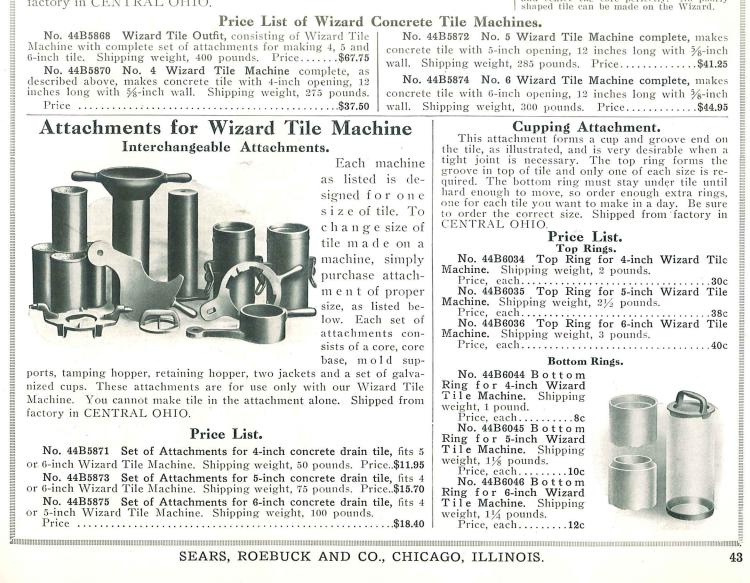
The jacket in which the tile is formed is made of cast iron in two parts securely held together with simple latches which are easily opened to release the tile.

The tamper is formed with a hopper shaped end with two smooth handles attached. The material for making the tile is put in the hopper end of the tamper and feeds as you tamp. As the tamper is heavy but little energy is required to tamp the tile properly. There are guiding ribs inside which insure even feeding of the material and a tile of even consistency throughout. A rack is provided at the rear end of the machine for holding the measuring cups, which are made of heavy galvanized iron and are just large enough to contain sufficient material for one tile. A boy can keep these cups filled, which enables you to make tile faster than if you were to handle the material by means of a shovel. A set of four cups, each holding sufficient material for one tile, is furnished with each machine. No material is wasted. Each machine is fully guaranteed and sold subject to trial, as explained on page 8. Shipped from factory in CENTRAL OHIO.



The tile has been completed and the tamper held in the retaining hopper by the retaining plate has been swung over out of the way. The hand lever has been brought forward, thus raising the jacket and tile, stripping it from the core, which is securely attached to the machine. Guide strips hold the jacket securely in position and center the core perfectly. No poorly shaped tile can be made on the Wizard.

Price List of Wizard Concrete Tile Machines.







Triumph Sewer and Drain Tile Molds



Mold assembled, ready for material. 4-inch and 6-inch sizes have cast iron jacket.

The parts of the mold and a finished tile, showing simple core collapsing device.

4-inch core does not collapse.

We recommend our Wizard Tile Machine to those who intend to make large quantities of 4-inch, 5-inch or 6-inch tile. To make larger tile our Triumph Sewer and Tile Molds, illustrated above, will answer the purpose. These molds are made throughout of the best quality of material and will give per-

CONSTRUCTION. The mold complete is made up of four parts, the jacket or outside shell, the core, the core hood and the hopper.

The jacket is made up of the best quality galvanized iron accurately shaped and fitted together. It is well reinforced with wire or band iron, depending on size. It is easily and quickly closed or opened. 4-inch and 6-inch jackets are made of gray iron casting.

The core in all sizes except 4-inch is of galvanized iron, provided with a simple collapsing device which releases the core very easily. The core is quickly and easily drawn without breaking the tile. There is no complicated arrangement for collapsing the core, but it is a very simple combination of levers. The core on the 4-inch mold is solid or non-collapsing, being a red of collapsing the core is a control of collapsing. being made of galvanized iron and is slightly tapered. A stripping plate is furnished so core can be withdrawn easily by a twisting motion without breaking the tile. It is impracticable to make a 4-inch collapsible core that is successful; the taper of this core is so slight that there are no offsets or shoulders in which dirt can lodge when laying the tile. Core in all sizes is made long enough so bell or bevel and tongue attachment can be used at any time if desired.

The core hood is of cast iron and closes the upper end of core so that concrete material cannot get down inside of core. The 4-inch core and hood are one piece.

The hopper is to be placed over the jacket to guide the material in between the core and the jacket, preventing spilling the material while tamping. It makes the mold very convenient and insures economy in the manufacture of the tile. Hopper on all sizes up to 14-inch is of cast iron; 18-inch and 24-inch hoppers are of heavy galvanized iron reinforced with bands of wrought iron.

We guarantee our Triumph Sewer and Tile Molds to be perfect in material and workmanship and to give satisfaction in every way. If you are not perfectly satisfied you can return any mold you buy and we will return the price you paid, together with freight charges.

Concrete tile can be made at any time. If made in the win-

ter, simply protect them from freezing for about forty-eight hours after they are made. After that they can be placed out of doors and the weather will not hurt them in the least. In fact, there are any number of cases on record where concrete tile have laid in a ditch all through the winter and were subjected to continual freezing and thawing and were perfect at the end of the season. You can make tile during your spare time for about half what they would cost you if you bought them. If you consider entering the tile business you can do no better than to buy your molds or machines from us, as we can furnish you with machinery that is equal to any you can buy. If you want any special information concerning the tile business, be sure to write us and we will be pleased to help you.

Cost of Making Tile on Triumph Molds.

Whether you buy a Wizard Tile Machine or not it will pay you to read over the description of the Wizard Machine and learn of some of the advantages of concrete over clay tile. It will cost more to make tile on the Triumph Molds because they are slower. Only one set of molds in one size is needed, as the mold is removed from the tile as soon as tamped. We furnish everything complete with the mold, including the tamper.

The following figures are based on a mixture of one part cement to three parts sand, which makes a very good tile. It will require 1 cubic yard of sand and 2½ barrels cement to make a cubic yard of concrete. Cost as given is based on—

Labor—2 men at \$2.00 per 10-hour day.

Cement at \$2.00 per barrel.

Sand at 75c per cubic yard.

When Bevel and Tongue attachment is used figures remain about as given for "straight" end tile. Bell end tile require more material as shown in table below. In actual practice more tile can be made than our figures show as our estimate is very conservative. Cost can be reduced further by using a mixture of one part cement to four or five parts sand, which will make a tile suitable for draining.

Size, Inches	Kind	Number to Cubic Yard	Quantity Made by 2 Men	Estimated Cost per Tile	Estimated Cost per Foot
4	Straight	250	150	4½c	4½c
4	Bell	198	135	5½c	5½c
6	Straight	175	125	6c	6e
6	Bell	134	115	7 c	7 c
8	Straight	81	110	1 Oc	6c 7c 6¾c
8 8	Bell	66	100	1 2 c	. 8c
$ \begin{array}{c} 10 \\ 10 \\ 12 \end{array} $	Straight	59	90	12c 131/4c	83/4c
10	Bell	47	80 85	161/4c	103/4c
12	Straight	34 28	S5	20c	10c
12	Bell	28	65	25c	1 2½c
14	Straight	261/2	70	25%c	1 23/4c
14	Bell	$21\frac{3}{4}$	70 55	31½c	1 2¾c 15¾c
18	Straight	18	60 45	353/4c	173/4c
18	Bell	141/4	45	45½c	223/4c
24	Straight	12	50	52c	26c
24	Bell	91/4	40	66c	33c

Price List of Triumph Sewer and Drain Tile Molds.

All sizes are shipped from factory in CENTRAL OHIO.

No. 44B5821 Four-Inch Tile Mold. Makes tile 4 inches in diameter inside, 12 inches long; wall 1 inch thick. Shipping

weight, 30 pounds. Price..

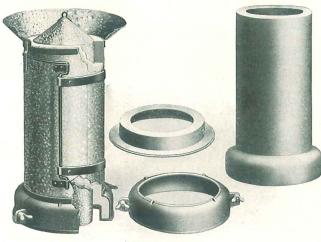
No. 44B5823 Eight-Inch Tile Mold. Makes tile 8 inches in diameter inside, 18 inches long; wall 11/8 inches thick. Shipping

weight, 70 pounds. Price......\$9.90 No. 44B5825 Twelve-Inch Tile Mold. Makes tile 12 inches

Shipping weight, 190 pounds. Price.....\$17.50

See next page for attachments to make sewer pipe. 5

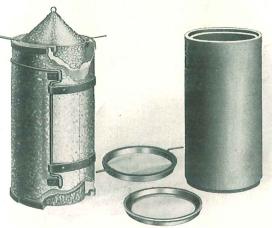
Bell End, Tongue and Bevel Attachments for Triumph Tile Molds



Bell End Attach ment in Mold With Tile Completed. Bell End Attach-

Bell End Tile.

enable you to make special pipe for purposes where a tight joint is needed. The illustrations clearly show method of using the attachment in our Triumph tile molds. as described on page 44. As the tile must remain on the bell or tongue pallet till hard enough to move, which is about twenty-four hours, it is necessary for you to purchase one pallet for each tile you want to make in twenty-four hours. Be sure to order the correct size. We do not furnish a tile mold with these at-tachments at the prices shown. See page 44 for tile mold. Shipped from factory in CENTRAL OHIO.



Tongue and Bevel Tongue and Bevel Tongue and Bevel Attachment With Attachment.

Tile Completed.

Bell End Attachments for Tile Molds

Tongue and Bevel Attachments

								U					
	nd Attachment, In Outside Bell	cluding P Mold	allet and	Pal	let Only		Attach	ment Complete, Inc	cluding P	allet and	Pal	let Only	
Size, Inches	Catalog No.	Weight, Pounds	Price	Catalog No.	Wt., Each, Pounds	Price	Size, Inches	Catalog No.	Weight, Pounds	Price	Catalog No.	Wt., Each, Pounds	Price
4 6 8 10 12 14 18 24	44B5901A 44B5902A 44B5903A 44B5904A 44B5906A 44B5907A 44B5907A 44B5908A	9 14 18 24 31 33 72 120	\$1.49 1.75 1.95 2.75 2.75 6.00 7.50	44B5901B 44B5902B 44B5903B 44B5905B 44B5906B 44B5907B 44B5908B	$\begin{array}{c} 4\\7\\9\\10\\12\\13\\32\\55 \end{array}$	\$0.45 .488 .563 .899 1.50 2.63	4 6 8 10 12 14 18 24	44B5911A 44B5913A 44B5914A 44B5915A 44B5916A 44B5917A 44B5918A	4 6 9 14 16 36 57	\$0.58 .69 .790 1.10 1.23 2.23 3.25	44B5911B 44B5912B 44B5913B 44B5914B 44B5916B 44B5917B 44B5918B	2 3 4 5 7 12 27	\$0.23585 .334583 .45838 1.63

11

Pure Mineral Colors for Coloring Concrete How to Mix Our Pure Mineral Colors for Concrete Purposes.



Take the required portion of cement to be used for the facing mixture and add the proportion of mineral color recommended under each number, mix thoroughly with the cement and be sure there are no lumps. It is best to screen the mixture through a 1/16-inch mesh screen. After the colors have been mixed with the cement you add the required proportion of clean sharp sand;

mix thoroughly so the color will be uniform throughout. After the sand and colored cement have been mixed thoroughly add sufficient water to dampen the mixture evenly throughout.

Be sure you weigh your colors before using them, so you can secure the same tint should you be required to mix several batches. It is necessary to have the cement and sand of one grade and quality or the finished product of several batches will not have the same color.

Description and Analyses of Various Pure Mi neral Colors We Sell for Concrete Purposes.

obtain a good shade when mixed with concrete. Comes in 300-pound barrels.

No. 30B2394 YELLOW. This is a good strong domestic yellow and can be used to good advantage in making a light buff colored concrete brick where a lighter shade is required than that produced by the following yellow color. It requires 15 pounds to every 100 pounds of cement to obtain a good tint for concrete purposes. It comes packed in 350-pound barrels.

No. 30B2395 EXTRA YELLOW. This is a very yellow hematite and one of the best yellows we have to offer for concrete coloring. This color is used for making a light and dark yellow brick, leaning toward the buff shade, and is very much used by concrete building block manufacturers. This color can be varied and deepened by the addition of any of the red oxides mentioned and in this way produces a very rich effect. Analysis: 70 per cent sesquioxide of iron, balance inert material. Requires about 15 pounds to every 100 pounds of cement to give the proper shade for concrete purposes. Comes in 350-pound barrels.

No. 30B2396 BLACK. This is one of the strongest blacks known and is absolutely permanent on concrete work; while the cost is somewhat high per pound, its coloring powers overbalance this feature. It requires about 2½ pounds to 100 pounds of cement to obtain the desired shade. Comes packed in barrels weighing 30 pounds each.

COMBINATION SHADES. By manipulating the above colors in various combinations some very beautiful effects can be had. This, of course, must be gained by some of your own experiments.

e deep enough to insure the best results. 12 to 15 pounds of coloring course, must be insure the best results.

No. 30B2390 RED. This is a red oxide of iron of lighter color than the following red mentioned. It does not contain quite so high a percentage of oxide of iron, but the color sexpensive oxide of iron, but the color of prophalance silicate and inert material. This color will produce a medium shade of red, and it requires about 15 pounds to every 100 pounds of cement. Comes packed in 325-pound barrels.

No. 30B2391 Analysis: 50

No. 30B2391 RED. This is a very strong natural hematite red of very brilliant color and will give a good deep high colored red when mixed with cement. It is imported in the crude state and ground and mention in the mills, thereby obtaining an absolutely uniform product. Analysis: 73 per cent sesquioxide of iron, remainder silicate and inert material. Requires about 12 pounds to every 100 pounds of cement. Comes in 600-pound barrels.

No. 30B2392 ENTRA RED ONIDE. This color is the brightest and inert material. Requires about 12 pounds to every 100 pounds of cement in the state of the proper shade, and is very much used by concrete building block manufacturer in coloring brick. Analysis: 98 per cent sesquioxide of iron, balance inert material. It requires about 10 pounds to every 100 pounds of cement and gives a bright red color to a concrete mixture. Comes packed in 400-pound barrels.

No. 30B2393 BROWN. This is a natural brown of very good coloring properties and produces a deep, rich brown color when mixed with concrete purposes. It requires about 10 pounds to every 100 pounds of cement to give coloring properties and produces a deep, rich brown color when mixed with concrete purposes. It requires about 10 pounds of cement to give coloring properties and produces a deep, rich brown color when mixed with concrete purposes. It requires about 10 pounds to every 100 pounds of cement to give coloring properties and produces a deep, rich brown color when mixed with concrete purposes. It requires about 15 pounds to color in particular to color in particular to color in particular to color in pa

Catalog No.	PURE MINER	AL COLORS FOR COLORING CONCRETE	BARREL Price, per Pound	100 POUNDS Price, per Pound	Price, per Pound
30B2390	Red Oxide,	325-pound barrels	2c	2½c	3c
30B2391	Red Oxide,	600-pound barrels	31/4c	33/4c	4c
30B2392	Extra Red,	400-pound barrels	9c		10c
30B2393	Brown Mineral,	300-pound barrels	2c	9½c 2½c	3c
30B2394	Yellow Oxide,	350-pound barrels	1½c	2c	2½c
30B2395	Extra Yellow,	350-pound barrels	1½c 2½c	3c	3½c
30B2396	Black,	30-pound barrels	15c		18c
30B2397	Carbon Black,	200-pound barrels	5c		7c

See Page 39 for a Waterproofing Concrete Paint. See Page 39 for a Waterproofing Concrete Lamt.





SLATE SURFACED FURNISHED IN TWO COLORS, RED AND GREENISH GRAY. PER GUARANTEED TO WEAR FIFTEEN YEARS. COLORS WILL NOT FADE.

ORIENTAL SLATE SURFACED ROOFING is the most beautiful roofing made. Its color is permanent. Fine enough for the most expensive residence, yet low enough in price for the most humble cottage. Made from a long fiber roofing felt, saturated with an asphalt composition and heavily coated with hard asphalt in which the crushed slate is thoroughly embedded. We guarantee the high quality of every ingredient used in making this roofing. It positively needs no coating nor attention after it is laid. It is fire resisting and for this reason makes an excellent roofing for buildings near factories, foundries or railroads, as it will not catch fire from flying embers. ROLL Suitable for any roof with a fall of 11/2 inches or

more to the running foot.

Comes in rolls 32 inches wide, each roll containing 108 square feet, covering surface 100 square feet, 8 feet being allowed for 2-inch laps.

Weighs 85 pounds to the roll.

STAND ON END NO.63

REDSLATE SURFACED

PERMANENT READY ROOF

GOOD IN ANY CLIMATE WEIGHT 85 POUNDS THIS ROLL CONTAINS ONE SOUARE (LORGE) ENECESSARY CALVANIZED ROUFING NAU
CEMENT PACKED ON THE INSIG

STAND ON END



than the standard weight adopted by manufacturers licensed to use Red and Green Slate, controlled by Patent No. 1007146.

It is furnished in two colors, red and gree gray. These colors are permanent, as they are natural colors of the slate just as it is quarried. red and greenish

MAKES A BEAUTIFUL ROOF. Red Slate Surfaced Roofing is a dull rich red and makes a beautiful roof for any building. Greenish Gray Slate Surfaced Roofing will grow richer in color after it is exposed to the summer sun for a few weeks and has had a shower or two of rain.

Here's a chance to reduce the cost of your building, adding to its beauty, reducing its cost of upkeep, as no painting is ever required. Whether you use Red or Greenish Gray Slate Surfaced Roofing you have the satisfaction of knowing that the colors are permanent and that neither need be touched for at least fifteen years. Anyone can lay it. Complete directions go with every roll.



By using Oriental Roofing you save \$62,25 on an average roof of 16 squares. Roofing and large amount to \$44,00. Wood shingles and cost of laying shingles amount to \$106,25, a clear saving of \$62,25, and you have a roof that is guaranteed to wear fifteen years without any attention whatever, which is worth more to you than the saving.



WE FURNISH WITHOUT EXTRA CHARGE with every roll large headed galvanized roofing nails and plenty of cement for lapping seams or joints. Note that we furnish a galvanized nail with large head which costs 100 per cent more than the old style roofing or shingle nails and tin caps. If this roofing is to be laid over shingles be sure to ask for 1%-inch nails, otherwise %-inch nails will be sent.

PRICES ON RED OR GREENISH GRAY SLATE SURFACED ROOFING SHIPPED FROM CHICAGO, PITTSBURGH, CINCINNATI, KANSAS CITY, ALBANY OR ST. PAUL, MINN.

Catalog No.	Surfaced With	Weight	Price, per Roll
48B62 48B63	Crushed Greenish Gray Slate	85 lbs. 85 lbs.	\$2.25
PRICES ON SH	RED OR GREENISH GRAY SLATE SUR IIPPED FROM ATLANTA, GA., \$2.45 PER Samples will be mailed free on request.	ROLL.	ROOFING

SURFACED

FURNISHED IN RED OR GREENISH GRAY

WILL NEVER CHANGE COLOR. Oriental Slate Surfaced Shingles retain their rich color always, because they are surfaced with genuine red or greenish gray crushed slate in their natural colors. Absolutely no paint or artificial color used in making these shingles.

GUARANTEED TO OUTWEAR WOOD SHINGLES. Oriental Slate Surfaced Shingles will outwear wood shingles because they are waterproofed clear through. The crushed slate not only furnishes the never fading color but is the actual wearing surface of the roof and makes it practically firencof. fireproof.

REQUIRE NO ATTENTION AFTER BEING LAID. WE GUARANTEE THESE SHINGLES TO WEAR FIFTEEN YEARS WITHOUT PAINTING OR ANY ATTENTION WHATEVER.

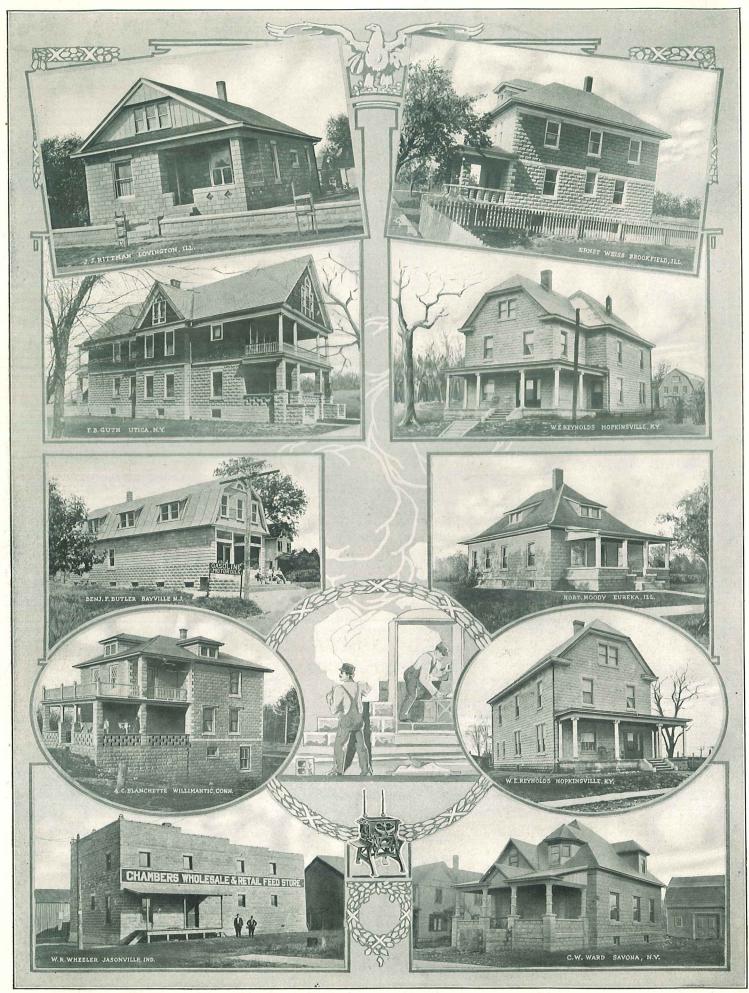
ALL SHINGLES ARE OF UNIFORM SIZE, 8x12¾ inches. Unlike wood shingles, there are no culls to be thrown away. Every shingle being of uniform size there is no labor wasted in selecting the proper size shingles to properly break the joints. Oriental Shingles can be laid with less labor than wood shingles and after they are laid have the appearance of slate. Oriental Slate Surfaced Shingles should be laid 4 inches to the weather and ½ inch apart.

We Guarantee These Shingles to Wear Fifteen Years.

ORIENTAL SLATE SURFACED SHINGLES are packed in boxes. 425 shingles will lay one square or 100 square feet or as much surface as 1,000 wood shingles laid 4 inches to the weather. Oriental Shingles can be laid on the same sheathing as wood shingles, even if roof boards are from 1 to 2 inches apart. This means quite a saving where old shingles have to be removed and replaced with Oriental Shingles. Shipped from CHICAGO, ILL., or CINCINNATI, OHIO.

Catalog No.	Surfaced With	Price, per Square of Shingles	Weight, per Square, Pounds
48B3048	Crushed Red Slate	\$4.75	240
48B3049	Crushed Greenish Gray Slate	4.75	240





We Guarantee That each and every article

That each and every article in this catalog is exactly as described and illustrated.

We guarantee that any article purchased from us will satisfy you perfectly; that it will give the service you have a right to expect; that it represents full value for the price you pay.

If for any reason whatever you are dissatisfied with any article purchased from us, we expect you to return it to us at our expense.

We will then exchange it for exactly what you want, or will return your money, including any transportation charges you have paid.

SEARS, ROEBUCK AND CO.,

