SPORTING ARCHITECTURE

BY

G. TATTERSALL.
SPORTING ARCHITECTURE.

GEORGE TATTERSALL,
Surveyor.

LONDON

Published May 1841 by Edward Momm, Sporting Gallery, 19 Regent Street.
Contents.

INTRODUCTORY OBSERVATIONS .............................................. 1

PART I.—THE STUD FARM.

SOIL .................................................................................. 5
PERMANENT BOXES ......................................................... 6
FOUNDATIONS .................................................................. 6
PLAN .................................................................................. 7
CIRCULAR BOXES ............................................................... 8
HEXAGONAL BOXES .......................................................... 8
BOXES AT HAMPTON COURT ............................................. 9
BOXES AT WILLESDEN PADDOCKS .................................... 10
VENTILATION OF BOXES .................................................. 11
PAVING OF BOXES ............................................................ 12
FURNITURE OF BOXES ..................................................... 12
YARDS ............................................................................. 13
ELEVATION ....................................................................... 13
COST ................................................................................. 14
PADDOCKS ....................................................................... 14
PADDOCK FENCES ............................................................ 15
BOUNDARY FENCES .......................................................... 17
PADDOCK GATES ............................................................... 17
STALLIONS' BOXES ........................................................... 18
VENTILATION AND FURNITURE ....................................... 19
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE OF BOXES AND YARDS</td>
<td>19</td>
</tr>
<tr>
<td>TEMPORARY HOVELS</td>
<td>19</td>
</tr>
<tr>
<td>PLANS</td>
<td>20</td>
</tr>
<tr>
<td>ELEVATION</td>
<td>21</td>
</tr>
<tr>
<td>HOVELS AT THE DINGLE STUD FARM</td>
<td>21</td>
</tr>
<tr>
<td>THE STRAW-YARD</td>
<td>23</td>
</tr>
<tr>
<td>PLAN</td>
<td>23</td>
</tr>
<tr>
<td>BOXES</td>
<td>24</td>
</tr>
<tr>
<td>DRAIN-GUTTERS</td>
<td>24</td>
</tr>
<tr>
<td>DOORS</td>
<td>25</td>
</tr>
<tr>
<td><strong>PART II.—THE STALL.</strong></td>
<td></td>
</tr>
<tr>
<td>THE HACK STABLE</td>
<td>29</td>
</tr>
<tr>
<td>THE HUNTING STABLE</td>
<td>29</td>
</tr>
<tr>
<td>REMARKS ON HUNTING STABLES, BY NIMROD</td>
<td>30</td>
</tr>
<tr>
<td>MR. BUZZARD'S STABLES AT LITTLE BUCKLAND</td>
<td>30</td>
</tr>
<tr>
<td>THE QUORN STABLES</td>
<td>31</td>
</tr>
<tr>
<td>SIZE OF STABLES</td>
<td>31</td>
</tr>
<tr>
<td>PLAN FOR A HUNTING STABLE</td>
<td>31</td>
</tr>
<tr>
<td>SIZE OF LOOSE BOXES AND STALLS</td>
<td>32</td>
</tr>
<tr>
<td>VENTILATION OF STABLES</td>
<td>33</td>
</tr>
<tr>
<td>WINDOWS</td>
<td>34</td>
</tr>
<tr>
<td>LOFTS</td>
<td>34</td>
</tr>
<tr>
<td>SADDLE-ROOM</td>
<td>35</td>
</tr>
<tr>
<td>WATER</td>
<td>35</td>
</tr>
<tr>
<td>STEABLES AT TEDWORTH, HANTS</td>
<td>36</td>
</tr>
<tr>
<td>FORM OF STABLES</td>
<td>38</td>
</tr>
<tr>
<td>DESCRIPTION OF THE WARWICKSHIRE HUNT STABLES, AT KINETON</td>
<td>38</td>
</tr>
<tr>
<td>THE RACING STABLE</td>
<td>42</td>
</tr>
<tr>
<td>DESCRIPTION OF AN ORIGINAL DESIGN FOR A RACING STABLE</td>
<td>43</td>
</tr>
<tr>
<td>THE MARQUIS OF EXETER'S RIDING SCHOOL AT NEW MARKET</td>
<td>44</td>
</tr>
<tr>
<td>MR. STEVENS'S RIDING SCHOOL AT NEW YORK</td>
<td>45</td>
</tr>
</tbody>
</table>
PART III.—THE KENNEL.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPINIONS UPON KENNEL BUILDING, BY R. T. VYNER, ESQ.</td>
<td>49</td>
</tr>
<tr>
<td>SITE</td>
<td>50</td>
</tr>
<tr>
<td>KENNEL LAMENESS</td>
<td>50</td>
</tr>
<tr>
<td>ITS CAUSE AND EFFECT</td>
<td>51</td>
</tr>
<tr>
<td>THE ROYAL KENNEL AT ASCOT HEATH</td>
<td>51</td>
</tr>
<tr>
<td>KENNEL AT THRUSSINGTON</td>
<td>51</td>
</tr>
<tr>
<td>PLAN FOR A KENNEL</td>
<td>52</td>
</tr>
<tr>
<td>LODGING ROOMS</td>
<td>52</td>
</tr>
<tr>
<td>BENCHES</td>
<td>53</td>
</tr>
<tr>
<td>COURTS</td>
<td>54</td>
</tr>
<tr>
<td>FEEDING ROOM</td>
<td>55</td>
</tr>
<tr>
<td>BOILING HOUSE</td>
<td>56</td>
</tr>
<tr>
<td>GREAT DRAWING COURT</td>
<td>56</td>
</tr>
<tr>
<td>YOUNG HOUNDS KENNEL</td>
<td>57</td>
</tr>
<tr>
<td>DESCRIPTION OF THE WARWICKSHIRE HUNT KENNELS AT KINETON</td>
<td>58</td>
</tr>
<tr>
<td>KENNELS AND KENNEL LAMENESS, BY NIMROD</td>
<td>64</td>
</tr>
<tr>
<td>KENNEL LAMENESS OF MODERN ORIGIN</td>
<td>65</td>
</tr>
<tr>
<td>WARMTH NO PREVENTIVE</td>
<td>66</td>
</tr>
<tr>
<td>THE VINE HUNT KENNEL</td>
<td>67</td>
</tr>
<tr>
<td>THE LATE MR. VILLEBOIS’ KENNEL</td>
<td>68</td>
</tr>
<tr>
<td>MR. NICOLL’S KENNEL</td>
<td>68</td>
</tr>
<tr>
<td>MR. FOLJAMBE’S KENNEL</td>
<td>69</td>
</tr>
<tr>
<td>MR. THOMAS ASSHETON SMITH’S KENNEL</td>
<td>69</td>
</tr>
<tr>
<td>KENNELS AT BUTLER’S MARSH</td>
<td>69</td>
</tr>
<tr>
<td>THE ALBRIGHTON KENNEL</td>
<td>69</td>
</tr>
<tr>
<td>MR. FOLJAMBE’S NEW KENNEL</td>
<td>69</td>
</tr>
<tr>
<td>LORD FITZWILLIAM’S KENNEL AT MILTON</td>
<td>70</td>
</tr>
<tr>
<td>THE QUORN KENNEL</td>
<td>70</td>
</tr>
<tr>
<td>THE BILLESDON KENNEL</td>
<td>71</td>
</tr>
<tr>
<td>DESIGN FOR A KENNEL</td>
<td>71</td>
</tr>
<tr>
<td>SITUATION, SOIL, AND FOUNDATION</td>
<td>71</td>
</tr>
<tr>
<td>CONTENTS.</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>ASPECT ..........</td>
<td>72</td>
</tr>
<tr>
<td>GRASS YARD ..........</td>
<td>73</td>
</tr>
<tr>
<td>LODGING HOUSES ..........</td>
<td>74</td>
</tr>
<tr>
<td>BOILING HOUSE AND FLESH HOUSE ..........</td>
<td>75</td>
</tr>
<tr>
<td>FEEDING ROOM ..........</td>
<td>76</td>
</tr>
<tr>
<td>WATER ..........</td>
<td>76</td>
</tr>
<tr>
<td>VENTILATION ..........</td>
<td>76</td>
</tr>
<tr>
<td>KENNEL LAMENESS—ITS EXISTENCE DOUBTED ..........</td>
<td>77</td>
</tr>
<tr>
<td>A NEW THEORY ..........</td>
<td>79</td>
</tr>
<tr>
<td>CURE OF KENNEL LAMENESS ..........</td>
<td>80</td>
</tr>
<tr>
<td>THE GOODWOOD KENNEL ..........</td>
<td>81</td>
</tr>
<tr>
<td>MR. HARVEY COMBE'S KENNEL AT COBHAM ..........</td>
<td>81</td>
</tr>
<tr>
<td>THE PETWORTH KENNEL ..........</td>
<td>81</td>
</tr>
<tr>
<td>THE EARL OF RADNOR'S KENNEL AT KINGSTON ..........</td>
<td>82</td>
</tr>
<tr>
<td>DESCRIPTION OF AN ORIGINAL DESIGN FOR A KENNEL ..........</td>
<td>82</td>
</tr>
<tr>
<td>GREYHOUND KENNELS ..........</td>
<td>86</td>
</tr>
</tbody>
</table>

**PART IV.—RACE STANDS.**

| THE GRAND STAND—ASCOT ..........                                                                 | 91   |
| THE GRAND STAND—LIVERPOOL ..........                                                                 | 92   |
| THE GRAND STAND—GOODWOOD ..........                                                                 | 93   |
| THE GRAND STAND—EPSOM ..........                                                                 | 93   |
| THE GRAND STAND—CHESTER ..........                                                                 | 94   |
| THE GRAND STAND—DONCASTER ..........                                                                 | 94   |
| DEFECTS OF THESE STANDS ..........                                                                 | 94   |
| DESCRIPTION OF AN ORIGINAL DESIGN FOR A NEW GRAND STAND ..........                                                                 | 96   |
| WITH CIRCULAR FRONT ..........                                                                 | 96   |
| THE ENVOIE ..........                                                                 | 97   |
# Illustrations

1—THE LIFE OF THE HORSE ....................................................... Frontispiece.
2—ASCOT GRAND STAND ....................................................... Page vi
3—"THE KENNEL" ................................................................. 2
4—NEWTON GRAND STAND .................................................... 3
5—CIRCULAR DESIGN FOR BOXES ............................................ 8
6—HEXAGONAL DESIGN FOR BOXES ........................................ 8
7—PLAN OF BOXES AT HAMPTON COURT ................................... 9
8—BOXES AT WILLESDEN PADDOCKS ...................................... 10
9—PLAN OF BOXES AT WILLESDEN PADDOCKS ............................ 11
10—SECTION OF THE SAME .................................................... 11
11—VIEW OF A NEW PADDOCK FENCE .................................... 15
12—SECTION OF THE SAME .................................................... 16
13—IRON HURDLE AND CHAIN FENCE .................................... 17
14—PLAN OF STALLION'S BOXES AT WILLESDEN PADDOCKS ........... 18
15—VIEW OF THE SAME ....................................................... 18
16—DESIGN FOR TWO HOVELS UNDER ONE ROOF ....................... 20
17—DESIGN FOR FOUR HOVELS UNDER ONE ROOF ..................... 20
18—ELEVATION OF THE SAME ................................................ 21
19—STRAW YARD AT WILLESDEN PADDOCKS .............................. 23
20—CENTRE GUTTER USED AT WILLESDEN PADDOCKS .................. 24
21—BOX DOOR USED AT WILLESDEN PADDOCKS .......................... 25
22—THE BILLESDON STABLES ................................................ 38
23—ORIGINAL DESIGN FOR A RACING STABLE ............................ 43
24—THE MARQUIS OF EXETER'S RIDING SCHOOL AT NEWMARKET ... 43
<table>
<thead>
<tr>
<th>Illustration</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>&quot;THE STARTING POST&quot;</td>
<td>45</td>
</tr>
<tr>
<td>26</td>
<td>ORIGINAL DESIGN FOR A KENNEL, BY R. T. VYNER, ESQ</td>
<td>51</td>
</tr>
<tr>
<td>27</td>
<td>WARWICKSHIRE HUNT KENNEL AND STABLES AT KINETON</td>
<td>58</td>
</tr>
<tr>
<td>28</td>
<td>THE BILLESDON KENNEL</td>
<td>70</td>
</tr>
<tr>
<td>29</td>
<td>THE TEDWORTH KENNEL</td>
<td>74</td>
</tr>
<tr>
<td>30</td>
<td>THE GOODWOOD KENNEL</td>
<td>81</td>
</tr>
<tr>
<td>31</td>
<td>KENNEL AT COBHAM, BUILT BY HARVEY COMBE, ESQ</td>
<td>81</td>
</tr>
<tr>
<td>32</td>
<td>THE PETWORTH KENNEL</td>
<td>82</td>
</tr>
<tr>
<td>33</td>
<td>LORD RADNOR'S KENNEL AT KINGSTON, OXFORDSHIRE</td>
<td>82</td>
</tr>
<tr>
<td>34</td>
<td>ORIGINAL DESIGN FOR A KENNEL</td>
<td>83</td>
</tr>
<tr>
<td>35</td>
<td>&quot;FOXHOUNDS IN FULL CRY&quot;</td>
<td>85</td>
</tr>
<tr>
<td>36</td>
<td>&quot;UP SHE GOES&quot;</td>
<td>88</td>
</tr>
<tr>
<td>37</td>
<td>THE GRAND STAND AT GOODWOOD</td>
<td>93</td>
</tr>
<tr>
<td>38</td>
<td>THE GRAND STAND AT EPSOM</td>
<td>93</td>
</tr>
<tr>
<td>39</td>
<td>THE GRAND STAND AT CHESTER</td>
<td>94</td>
</tr>
<tr>
<td>40</td>
<td>THE GRAND STAND AT DONCASTER</td>
<td>94</td>
</tr>
<tr>
<td>41</td>
<td>ORIGINAL DESIGN FOR A NEW GRAND STAND (PLANS)</td>
<td>95</td>
</tr>
<tr>
<td>42</td>
<td>ELEVATION VIEW OF THE SAME</td>
<td>96</td>
</tr>
<tr>
<td>43</td>
<td>&quot;THE END OF THE COURSE&quot;</td>
<td>97</td>
</tr>
</tbody>
</table>
Illustrations.

1.—THE LIFE OF THE HORSE ........................................ Frontispiece.
2.—ASCOT GRAND STAND .............................................. Vignette Title
3.—"THE KENNEL" ....................................................... vi
4.—NEWTON GRAND STAND ............................................ Page 2
5.—CIRCULAR DESIGN FOR BOXES ................................... 8
6.—HEXAGONAL DESIGN FOR BOXES .................................. 8
7.—PLAN OF BOXES AT HAMPTON COURT .......................... 9
8.—BOXES AT WILLESDEN PADDOCKS ............................. 10
9.—PLAN OF BOXES AT WILLESDEN PADDOCKS .................. 11
10.—SECTION OF THE SAME .......................................... 11
11.—VIEW OF A NEW PADDOCK FENCE ............................ 15
12.—SECTION OF THE SAME .......................................... 16
13.—IRON HURDLE AND CHAIN FENCE ......................... 17
14.—PLAN OF STALLION’S BOXES AT WILLESDEN PADDOCKS .... 18
15.—VIEW OF THE SAME ............................................. 18
16.—DESIGN FOR TWO HOVELS UNDER ONE ROOF .......... 20
17.—DESIGN FOR FOUR HOVELS UNDER ONE ROOF .......... 20
18.—ELEVATION OF THE SAME ....................................... 21
19.—STRAW YARD AT WILLESDEN PADDOCKS .................... 23
20.—CENTRE GUTTER USED AT WILLESDEN PADDOCKS .......... 24
21.—BOX DOOR USED AT WILLESDEN PADDOCKS .................. 25
22.—THE BILLESDON STABLES ...................................... 33
23.—ORIGINAL DESIGN FOR A RACING STABLE ................. 43
24.—THE MARQUIS OF EXETER’S RIDING SCHOOL AT NEWMARKET. 43
habits of the animal, that the designer of a dwelling for the dumb creation can succeed in rendering it such as may be the most conducive to their comfort, which carries with it what is even of more consequence, their health. Hitherto, however, this care has been considered as unworthy the attention of the Professional Artist; and animals of great value have either been kept in places rendered wholly unfit for them, by the carelessness of the Architect; or consigned to the tender mercies of some country carpenter.

To rescue then, if it be possible, this subject from the errors of ignorance, or the omissions of neglect;—to raise it in the estimation of my readers to the consideration due to its importance;—and to point out the methods whereby an outlay, frequently incurred to little purpose, may be expended to the best advantage, will be the object of the following pages.
PART I.

THE

STUD FARM.
SOIL.

To begin at the beginning—which certainly in building is "the Foundation:"—the first care should be in the choice of soil. It seldom happens, that a variety of situation in this respect, is offered; but if it be so—choose first the sand—then chalk or limestone—next gravel—then the loam,—and last of all—the clay. In a Stud Farm, where stock are bred for sale alone; and afterwards disposed of at early ages,—either as foals, or yearlings,—Soil is of comparatively little consequence; if a proportionate degree of care be given to the preparation of the buildings; horses generally, and more particularly Thoroughbred Stock, being so continually housed, and so artificially forced on, from foals to two year olds, that time is hardly given them to feel the ill effects resulting from damp atmosphere,—thick fogs,—and humid pasture. In short—a good horse may be raised upon the clay;—but hardly kept there with success.

The situation having been decided, either by necessity or choice, the next consideration is the laying it out to the best advantage. For this purpose, every attention must be paid to the features, whether good or bad, of the locality; and by these all the details must be regulated.
With regard to the requisites for a Stud Farm, they may be briefly classed as, Firstly, Permanent Boxes for mares, foals, and young things, with their Paddocks. Secondly, Stallions' Boxes. Thirdly, Straw Yard, Sheds, and Boxes; and lastly, Temporary Hovels. Each of these I shall at once proceed to describe seriatim.

PERMANENT BOXES.

The several substrata of gravel, sand, or chalk, afford so good, and, at the same time, so healthy a foundation for all kinds of buildings, that there is no need to prepare them for the reception of a superstructure; but it is not so with the loam or clay soils, which are by nature damp, close, and retentive of unhealthy vapours.

Supposing then for argument's sake the soil to be unkindly, all the foundations of your buildings should be laid on concrete, formed of five parts of good coarse gravel, to one of unslaked lime; and of at least two feet in thickness. The clay should be, moreover, excavated and removed to the same depth (two feet) from the interior of your intended building, and even from the yards attached. Having excavated and built your drains, the surface should be covered in again with concrete, and you will then have the foundation of the area you are about to cover in, in every respect secure and healthy.

Having prepared the ground; the general design, and detail of the plan next claim our attention.

Convenience and economy at once suggest the propriety of adopting some arrangement which may comprise several Boxes under
the same roof, yet altogether separated from, and independent of each other. With this view, the building must be so planned as to afford an easy access to, and outlet from each Box, with ready communications between them all, as well as with their several yards; at the same time that they must be sufficiently distinct to prevent infection. This is a most important consideration, as I have seen many a Hovel and Box so impregnated with disease, that it was certain ruin, if not death, to every animal that might be put into them. I would the more impress the importance of this point upon my readers, because, although a foal, or yearling, may recover from severe distemper, looking perhaps, to all appearance, better than before; it leaves a hollowness and weakness in the lungs, and chest,—which will be sure to show itself in after years. I could name numberless instances of such a case, which have come under my own knowledge. I would not be misunderstood to say, that all the care or caution in the world, could altogether do away with, or prevent distemper;—but I do mean to assert, that many of the evils now attendant on disease in foals and young things, may be so modified, as to be little cared for in their milder form;—and much of this may be effected by attention to the construction of their dwellings, above all in the matter of sweetness, free ventilation, and freedom from infection. The means by which this object is to be effected, I will point out hereafter.

A circular, or many-sided form of building, is that which I have almost invariably found to suggest itself, the first, to those, who, without experience, think to adopt the most convenient plan of uniting several Boxes under one roof. I annex two of these plans—one circular,—the other, hexagonal.
To both of these I find many material objections. In the first place, the expense of building is much greater in a design in any way approaching to a circular form;—than when upon the square. Then see the awkward interior of your Box, and how defective must be both light and ventilation, the door and window being necessarily on the same side. Moreover, a building so shaped, can be effectively placed only in the centre of a large space of Paddock ground, of which a greater or less portion must be sacrificed, according to the nature of the ground or situation; at the same time that it removes the Stud farther from home, and prevents the farm from being so readily worked. These several considerations have induced me to give a decided preference to rectilineal buildings.

The buildings at Hampton Court are excellent, as far as regards the arrangement of the plan; and the carrying out of the idea is very complete.

But for my own part I prefer a smaller building, as being more capable of management, and more generally adapted to any locality. There is a great waste of ground at Hampton Court.
The plan which I would recommend, as being at once the most convenient and economical, is shown in the accompanying Plate, of a building erected at "Willesden Paddocks," a Stud Farm belonging to Edmund Tattersall, Esq. of Hyde Park Corner.

In this design it will be seen that there are four Boxes, each fourteen feet square, and capable of accommodating either a mare and foal, or two young things—foals, or yearlings; with a passage, forming two additional Boxes, each fourteen feet by eight; when not used as a fodder room. Each Box opens into its own Yard or Paddock, with the exception of the occasional or passage Box, which makes use of that attached to one of the larger boxes. The Occupation Road through the farm runs along the back of the Boxes, a very great convenience for the carriage of hay, straw, &c. to the several buildings,—and an advantage which, it will be remarked, is lost when the circular form of building is adopted.

Having thus laid down the general form of a plan which may be varied according to the circumstances of locality, or the taste of the builder, I will now proceed to describe these Boxes in detail.

Entering from the road, we come into a Passage Box, opening by light panel doors into a Box on either hand, the dimensions of which are 14 ft. by 14. The first matter to which I would call attention, is the ventilation of this Box—you enter it (or, at least, you should do so) without perceiving the slightest draught, although the yard door is wide open. The atmosphere of the Box is even, pure, and mild. The whitened walls untainted with the usual stains of closeness, or of damp. The place, in short, is healthy. How this material object is attained I will proceed to show.
In the first place, look at the plan.

If you are careful always to close the outside and the centre doors of your passage,—how can there be a draught when the communication door into the Box is opened? When in the Box, close the door behind you, and you immediately find a fresh but even current of air constantly purifying the atmosphere, without the least danger of sudden gusts or chills occurring. The means of this will be best seen by the accompanying Section.
There are two windows in the Box, one over the yard door, the other, as may be seen by the plan, at the side. In the roof is left an aperture, six inches square, communicating by a luffer-boarded chimney with the outer air; the Box being ceiled, to prevent the heated and impure air from hanging about the rafters. A current is thus constantly forced from the yard door, or from the side window, upwards through the ventilator, in such a direction (shown in the section by the dotted line from \( a \) to \( b \),) as to eject the heated atmosphere through the chimney, and admit the fresh air so far above the general level of the animal's back, that, excepting perhaps in one corner of the Box (close to the farther side of the yard door), a breath of air can scarcely be discerned. In winter, when the yard door is shut, the same effect will be produced by opening the window over it; but I have stood with the yard door wide open, in one of the keenest blowing winds of winter, within a Box so built, and seen its only effect in the clearing away of the straw, to the space of about six inches in the door corner. This method is not merely theoretical, it has been tried and found in practice perfectly successful.

Your Boxes should be paved with bricks laid on edge in sand, upon the concrete foundation already recommended; having a fall from each corner to a centre perforated drain-stone. The drains should be carried to a cesspool outside, as far removed as possible from the building.

The furniture of your Boxes should consist of two corner mangers, with hay wells by their side, and a chain ring and chain to each. Everything, windows—doors—fastenings—and locks, should be made
flush inside; and everything, as far as may be possible, should be protected from the gnawing propensities, which, otherwise, will soon make "horsemeat" of your wooden door and window frames, at the same time that it gives the animal a taste for crib-biting.

Thirty feet by twenty-five is a good dimension for the yards. The walls should be at least eight feet in height, with strong wide-opening gates; and the area, as I have already mentioned, paved with concrete. Let the yard doors of your Boxes also be provided with side rollers, to prevent your young things from "hipping" themselves, should they gallop into or out of them suddenly, and strike themselves with violence against the frames.

The yards should be, moreover, each provided with a water manger, fixed in one corner. These mangers, made of cast iron, with a hole in the bottom (to be ordinarily stopped with a wooden plug), for the purpose of cleansing them, will cost about thirty-three shillings apiece. The supply of water, as well as the means of laying it on, must mainly depend upon the locality and its resources; but in no instance would I recommend a tank to be formed under the building: an expedient which I have sometimes seen adopted for the sake of the rainwater, but which cannot be otherwise than prejudicial to the health of the inmates, continually standing on so humid a foundation.

The elevation of your building, is a matter of taste which cannot be controlled by rule. A little decoration will not be thrown away, provided that it be confined to neatness; not running into an extravagance of ornament or outlay, which would but make the place
appear unsuited to its purpose. A Building such as I have here delineated and described, may be completed for the sum of £520.

In every case let these two axioms be borne in mind. That perfect fitness and appropriate keeping are the two best beauties of design. And that whatever is at all worth doing, is worth doing well.

**PADDOCKS.**

The arrangement and preparation of the Paddocks is a very material consideration in the economy of the Stud Farm.

The best size for a Paddock, is an area of between one and two acres. If divided into smaller lots than this, they do not give room for young things to bring their muscles into full play; which they should always be allowed to do. If again, the space be more extended, as at Hampton Court, where each Paddock covers about four acres, much valuable ground is lost, and no equivalent advantage gained.

The turf of the Paddock should be dry and elastic;—qualities which can only be obtained by care and attention, with the addition of very great expense if the soil be close and wet. Clay for instance must be liberally underdrained, as well as some means adopted for the entire removal of the surface water, without the necessity of ditches; which should on no account be allowed in a Paddock. Even on the driest soils, yearlings or foals should never be allowed to crop grass when wet, either with dews or rain; such food invariably producing scouring, and interior weakness.
The fences of your Paddock will be found very troublesome subjects;—horses being so able and willing to break through and destroy every restraint. Some persons give a preference to stone walls, which in some countries may answer the purpose very well, but in most places this is by far too expensive an expedient, to be generally adopted. Others again, plant Quick, protected by a post and rail on either side until it has attained to a sufficient growth and strength. To this material I have also two objections. Firstly, that it is at the least seven years before it can attain to a sufficient growth. Secondly, That when it has done so, it is a fence easily broken, and with difficulty mended.

The fence to which I give a decided preference over every other, as a division fence, may be seen in common use in Ireland.
A bank raised of earth, about four feet in height, two feet wide at the top, by four feet at the bottom, is faced with rough stones, if they can be procured handily; otherwise with turf, or anything which will knit the mass well together, and make it hard and solid. On the top of this bank, a solid fence of French furze must be planted, which in the course of three years, will attain a height of five or six feet, at which point it must be kept by constant cutting. The furze will for the first three years need the protection of a post and rail, and I would further recommend that the ground should be levelled down to the bottom of the bank in the manner shown in the accompanying section.

an expedient which will give additional height to the fence. The chief advantages of this description of fence are,—its quick growth, by which a gap is easily repaired,—the prickly nature of the furze, which
prevents horses from attempting to break through,—its cheapness, and ready applicability to all soils, and situations;—and though last, not least, the complete protection which an evergreen fence of this kind, at least ten feet in height, affords to Stock throughout the winter season.

The gates of all division fences in the Paddocks should be double; that is to say, a light bar should be fixed on the farther side of the fence, removed about six feet from the gate. If this caution be neglected, the horses in the separate Paddocks will be continually biting, and playing with each other over the gates, oftentimes causing accidents from splinters, or otherwise.

Oak paling is the best and cheapest boundary fence. The suggestions above given, of sloping down the earth to the fence-foot, will be found practicable and extremely useful in this case also.

Iron hurdles fixed between oak posts, with a light chain on the top, form an elegant and substantial fence for paddocks, in sight of your house.

It will be found advisable to round off the corners of your Paddocks and plant them. The trees affording shade in summer, as well as a protection from the cold winds of winter.
STALLION'S BOXES.

Stallion's Boxes requiring but little novelty of arrangement, may receive a little more attention in the design of the elevation, so as to render the building a pleasing feature in the view of the Stud Farm.

Annexed is a plan of two boxes under one roof, with accommodation for a third occasional box, if requisite.*

Each box has a separate yard, in which the horse should be allowed to exercise himself at times. The walls and gates of these yards must be at least ten feet in height.

The materials for this description of box, cannot be too strong, nor too well-seasoned; in fact they should be built almost as substantially as elephant cages in a menagerie, otherwise they will be constantly in need of fresh repair.

* The accompanying Plate shows the elevation of Boxes built upon this plan at Willesden Paddocks.
These boxes should be ventilated in the same manner as those already described for the mares and young things. They should be lined inside with elm boarding, about five feet high,—nothing resisting kicks so well as elm. No racks should be used, but the corn, the hay, and the water, should be given side by side;—the corn and water in separate iron mangers, or troughs, and the hay in an elm-boarded well between them. The small doors communicating with the fodder house, should be protected inside by strong half doors of elm. The large doors opening into the yards should be made to slide into the wall, as otherwise, the horse when left alone, and at liberty, is apt to play with, or to gnaw them. All the fastenings should be of the strongest description, and in every instance where it is possible, worked flush inside. The paving and other materials may be the same as for the other boxes already described.

Fourteen feet square is a good size for a stallion's box, and twenty-five feet by twenty, a sufficient area for each yard.

TEMPORARY HOVELS.

Temporary Hovels are built sometimes of wood, sometimes of mud plaster, and sometimes of hurdle filled in with faggots or furze. Of these various materials, however, I give a decided preference to wood.

The Hovels may be planned either singly;—in pairs
or in the centre of the ground in buildings of four.
In either case the elevation would appear the same, and the various arrangements of the troughs and mangers; and the principle of ventilation already described (ante, page 11), may be adapted to these buildings.

"At the Dingle Stud Farm, near Birmingham," says a writer of much experience in the New Sporting Magazine, "I was shown a range of six boxes, each 15 by 12 and 8 ft. high. I was told by the proprietor that the cost of the whole, including materials and workmanship, was somewhere about £40. More comfortable places I never beheld.

"The door-posts and uprights were of sawn oak, 6 in. by 4; the latter being placed 6 ft. apart; the former 4 ft. 6 in. Both were sunk 3 ft. into the ground, and the uprights connected together by strips of wood, or small poles split down the centre, and nailed longitudinally upon the inside of the uprights, nearly close together; thus forming a strong and compact frame-work.

"The manner of building is as follows:

"The gorse, being cut into small bunches, leaving a branch or foot-stalk 12 in. long remaining upon each, is placed carefully upon
the ground in layers, between two of the uprights; the prickly part being kept outside, as level as possible, and the foot-stalk a trifle elevated.

"When, by successive layers, you have obtained a height of 15 or 18 in., a tough pole, about the thickness of an ordinary broom-handle, and which fits exactly between the uprights, is placed upon the stalks, close to the prickly part of the gorse; and being drawn down very tight, by great pressure, is firmly secured to the inner framing, by ligatures of copper wire, say five or six in every length.

"If this be properly done, it will be found impossible to withdraw a single bunch of gorse; and it is upon this particular part of the process that the appearance and solidity of the work entirely depends. Another layer is then placed,—and another pole fastened,—until the desired height is obtained.

"The stalks projecting through the interstices of the frame-work, are then taken smoothly off; and the ends of the prickly part of the gorse, outside, being cut down, *secundum artem*, with a hay-trusser's knife, the outer wall is left as compact and solid as a rick. A roof either of tiles or thatch completes the building; and, if your workmen have been expert and skilful, it will be one that will please you greatly, and answer every purpose of an erection upon which you might have expended more than treble the amount.

"Should you, however, think such boxes or hovels too fragile, or otherwise objectionable, and, bearing in mind the benefit of your posterity, determine upon having them constructed more permanently of brick or stone, I would, by all means, recommend a thatched roof."
Or, supposing that you prefer one of tiles or slate, a straw lining to it; for either of these last-named materials is liable to be much affected by heat and cold."

The best method of building Temporary Hovels, however, in my opinion, is with a frame, weather-boarded. The roof may be either thatched, tiled, slated, or even, if more convenient, shingled,—that is to say, covered with light boards. In either case they should be "eaves- roofs," and the interior, both of roof and walls, should be occasionally whitewashed.

The plans given above, show a pump provided to supply the boxes. This is a great comfort and convenience, as well as a saving both in labour and wages, where water can be readily obtained.

THE STRAW YARD.

The chief care in the choice of situation for your straw yard, should be to have it warm, dry, and close to home.

The straw yard should contain boxes, about ten feet square, for barren mares. Other boxes, about half as large again, and in the warmest situations for mares to foal in; and a large shed, to shelter the mares when loose, and so arranged that it can at any time be readily divided into temporary boxes. This shed should face to the west, or south, if possible, and should be provided with a front boarding to prevent the wet from driving in upon the mares.
The boxes should be each provided with a well for hay, (no racks) a manger, and a water trough. They should be ceiled, coloured inside, and well ventilated. Hard Stock, or Malm bricks laid in sand, and sloped down to an iron centre-gutter, form the best paving, if the gutter be properly cleaned out every day; a process taking up but little time or trouble, if regularly attended to. An iron railing between every two boxes, allowing the mares to see each other,—also renders them more healthy, as well as more agreeable to animals generally fond of company.

Many yard boxes are made with "hatch doors," that is to say, doors of which the upper half is made to open independently of the lower; for my own part I do not like these doors. In the first place, the division renders them so weak, as to be easily knocked to pieces by kicking; and secondly, the mares, if frightened, as, for instance, by a violent thunder-storm, are apt to leap at the doors, and fall across them, perhaps doing themselves serious damage. The object of these hatch-doors, is to allow the occupants of the boxes to look about them, and to see their companions, instead of being constantly moped up alone, or rendered restless, by hearing, without seeing others. Both of these objects, however, may be better attained, by letting an iron grating into the upper part of the door, having a shifting shutter, should there be any necessity to close it up.
No horses should be allowed to remain in the Straw Yard with their hind shoes on.

I have sometimes seen a great saving of litter for Straw Yard Boxes effected, by removing it on the second or third day, into a field close by; where, by exposing it to the sun and wind, and frequently turning it over, it will become sufficiently sweet for use in the boxes again.

The Yard should be laid with gravel, on concrete, or hard core, sloping towards a drain or dung-pit in the centre; and so well covered with litter, as to afford a soft and pleasant footing to its unshod occupants, and to complete the proper comfort and convenience of the Straw Yard.
PART II.

THE

STALL.
THE HACK STABLE.

The arrangement of the Hack Stable is so simple, and at the same time so well known, as to require little notice here. Some few hints worthy of adoption, may, however, be perhaps gleaned from the following observations on the Hunting Stable; and I would further enforce the propriety of using hay wells instead of racks, and of the stable being kept at all times clean and thoroughly well ventilated.

THE HUNTING STABLE.

Will require some further care and attention to the peculiarities of its inmates. On this subject, therefore, I cannot do better than submit to my readers the following

ORIGINAL COMMUNICATION FROM NIMROD,

whose practical experience in all matters connected with the Kennel and the Hunting Stable, must fairly claim for his remarks, the attention due to our best authority.

"Few persons have had more experience of stables for the use of hunters, than I have had, and it is my opinion, that the subject of stables, is less thought of by sportsmen than it merits. Such as have
looked carefully into the condition of horses, must be convinced, how much depends upon the stables they inhabit. I have known the good effects of a change from a bad to a good one, to be strikingly visible in the space of a fortnight, and vice versa. I have entered many stables, which have felt warm and appeared to be comfortable, and still the horses were not doing well in them; which would be apparent, by the staring coat of some of them, on parts not covered by their clothing —on the neck,—near to the setting on of the head especially. This defect has arisen from a damp subsoil, and its effects will be visible on the internal walls, on which, what is called the damp will be seen to hang in globules; and it will also be detected by the flags, with which the stable is floored, being generally damp, if not wet, in the winter months.

The remedy here, is deep draining outside the building, and all round it, which generally proves effectual. I know two instances in which it was completely so, one of which was in the case of the late Mr. Buzzard, well known in the hunting and racing world. His stables, at Little Buckland, just under Broadway Hill, although excellent to look at, were damp; and his stud were always backward in their condition from this cause. When he moved them to Stratford-on-Avon, where his stables were, by comparison, wretched in their appearance, an alteration for the better was very soon perceptible; as it was again for the worse, if they returned to those of Buckland, which they occasionally did in the course of the season. Mr. Buzzard had deep drains cut outside, around the Buckland stables, and the difference was no longer felt. I state
this case, because it is well known to a large portion of hunting men, that the person alluded to, being a successful seller of his hunters, took vast pains to bring them into the field fit to look at, as well as to go.

I have always been averse to stables made to contain a great number of horses—such as that at Quorn, built by the late Lord Sefton, which contained twenty-eight in his time, and up to Mr. Osbaldeston's giving up the Quorn hounds; but it is now partly divided.

In the first place, an even temperature cannot be preserved, by many degrees, where so many horses are together for a certain number of hours out of the twenty-four; and then, all at once perhaps, a third of them, or nearly so, are taken out for the use of the owner and his servants. Secondly, I am a great advocate for horses in work, being kept as quiet as it is possible to keep them, between stable hours; but where many are in the same stable, this uninterrupted repose, during "shutting up time," as grooms call it, cannot be allowed them. Some will be kept out at exercise beyond the time for "shutting up;" others will be brought in from being shed, and many such casualties will arise.

Were I to build stables for hunters, they should be after this fashion:—

Suppose a stud to consist of sixteen. They should occupy four separate stables, although in the same range of building, if it were only for the sake of the aspect, which should be neither north nor east. I would have two stalls, and two boxes in each—the boxes merely walled with wood (a little higher than the horses' heads, so as
to prevent their looking over them), as in this case the same temperature is enjoyed by each horse in the stable. I would also have one of these boxes in each stable so arranged, as to be capable of being converted into two separate stalls, in case of extra stable-room being wanted, as will now and then be the case in all sportsmen's establishments on a large scale; although this plan is equally fitted to a small one, by reducing the stables to two—one in each wing.

The dimensions of the boxes should be twenty-two feet by thirteen, clear of the walls, which should be thick throughout, by which means alone the temperature can be kept low in summer, and sufficiently high in winter. The stalls should be six feet wide, but not more, and the height not less than twelve feet in the clear. It may be said the boxes are unnecessarily large. I answer, a small box, to a fatigued horse especially, is of little avail; whereas a large one will induce a fresh one to exercise himself in it at pleasure, and the more room a fatigued one has to sprawl out his limbs, when reposing, the more will he be inclined to do it, and the sooner will he become fresh again.

On the test of the experience of using them at sometimes, and the want of them at others, I think most highly of loose boxes for hunters in work; but still the following objections are to be observed regarding them. First, as touching the pocket, is the large space they occupy, which is the reason that, at Melton Mowbray, where stable rent is very high, owing to the high value of the ground they stand on, there are fewer hunters lying loose, than are generally found in other hunting quarters. This, however, is not so material to the owners of these
studs, because they are for the most part more than sufficient for the use of one man; it is to the short stud that loose Boxes are so desirable.

Secondly.—Some horses are not to be trusted in loose boxes—I mean such as are much given to roll over in the night. Several fatal accidents have occurred; one, a few years back, to the best mare in Warwickshire; and a mare of my own would not have lived half an hour longer had she not been relieved from being cast.

Again, if a hunter always lies loose, he will often be averse to lie down when sent, over night, to an inn, where no box can be allowed him. With race horses, this objection vanishes, because when they travel, they go a line of stables—if I may so express myself—always frequented by their trainers, and where boxes are to be had; but this fact is little known to hunting grooms, who generally take their horses to one of the head inns; and if it were known, it would not avail them, as, in the winter season, these boxes are not aired.

Great improvement has lately been made in ventilating stables. The noisy, rotary ventilator is exploded, and stables are now regulated as to heat, by various air-tubes passing out at the roof, by which a constant exchange of bad for good air is effected, without exposing the inmates to an inconvenient draught from either, which the ventilator did. In a stable of the size I have directed for four horses only, one of these tubes, narrowing towards its summit (say ten inches square at bottom, and half the size at top), and with a cap over it to prevent rain falling into it, will be sufficient; but in those containing eight or ten, two at least are required. A sliding door may be put at the lower aperture of this tube, so as to close it, in part, when it is necessary to increase the heat, which should be regulated by the
thermometer, in all valuable studs—from 60 to 64 in winter, and as low as possible in summer.

The position of the windows in stables, is material to health and comfort. They cannot be placed too high, should be made to open by turning on an axle, when pulled by a string, and fitted with wire blinds for summer. Wetted mats, likewise, made to fit their frames, are excellent for keeping stables cool in hot weather, as also preventing flies, where there are no wire blinds, and on the outside, open-work shutters,—after the form of Venetian blinds, but not so close in the bars, and so generally used on the Continent, would answer well for stables, by keeping out storms of pelting rain, or driving snow in the winter, and the sun, at its extreme heat, in the summer.

I do not approve of white walls in stables, especially in front of the stalls. Dark brown, or chocolate colour, is better for the horses' eyes.

I like a loft (ceiled of course,) over stables, because they are warmer and drier on that account, but it should be used only for straw. It is a bad system to have any large quantity of hay put into a loft at once; cats, if not rats, and mice, run over it and stain it in the first place, and in the next, it gets dry, and loses its flavour. In large establishments it should be cut out of a rick, and trussed every second or third day, and brought to the stables in a cart. Large corn-bins may be kept in lofts, where there is no regular granary, with conducting tubes, for letting their contents fall into smaller ones below, for immediate use; or with a contrivance, after the manner of the shot-belt, to discharge a certain quantity—a feed for one horse,—into a sieve.

In the centre of the stables, erected after the form here recom-
mended,—that is, in the space between the two stables (or range of stabling as it may be called), should be a saddle-room of good and convenient size, with a stove in the middle of it, for drying clothes, saddles, &c.; also a fire place and boiler, with cupboards, containing pegs, presses, and other conveniences for keeping horse-clothes in the summer, as likewise those not in use in the winter, for they are soon destroyed, if kept within reach of the atmosphere of a full stable. The cleaning house should adjoin the saddle-room, but with another door, and there should be a boiler in it also,—more essential here, indeed, than in the saddle-room, into which hot water may be brought by pipes, from the boiler in the cleaning room. The space in front of these two apartments, should be enclosed by folding doors, well glazed in the upper parts of them, so that the legs of horses, after hunting, or whenever dirty, may be washed, previously to being taken into the stable, where the operation causes dirt and confusion. Two horses at a time may be washed in this covered shed, and have some of the rough dirt brushed off their bodies, which is advisable before they are taken into the stable.

Moreover, I would have an outside door in each of the four stall stables, so as not to have to disturb the horses of one of them, by bringing through it, those which the other contains.

Water being so marked in its effects on the condition of horses, attention should be paid to furnishing stables with such as is good and proper. Should there be none that is soft very near at hand, so as to be conveniently conveyed to them, tanks, with conducting spouts, should be made to catch what falls from the roofs, or if this be
not done, although it is feasible at a small cost, and no soft water at hand, tubs of hard water should be placed within the stables; and, as is the case in most parts of the Continent, a portion of bran mixed with it. Hard water is at once detected by soap curdling in it, and it is not only inimical to the well-doing of horses, by disturbing their digestive organs, but dangerous as producing cholic, and occasionally death. That which runs over gravel, is always hard.

In the super-excellent stables of Mr. Thomas Assheton Smith, at Tedworth, Hants, the sills, mangers, manger-posts, and all the fittings, in front, are of slate, which has been found sufficiently durable for the purposes required. I approve of the use of slate for mangers, as a preventive of the trick of crib-biting; and there is a natural cleanliness in slate, beyond what attaches to wood, when not regularly scoured. Nothing adheres to the one, as it does to the other, from its non-porous substance. As for racks for hay, nothing in my opinion excels those made of iron. Much has been written in favour of what are called wells, for hay, level with the ground, but I never liked them, considering them fitter for neat cattle, who are not so nice in their feeding as horses are. As to horses losing their eyes from hay seeds falling into them. I can only say, that I never had an instance of the kind in my own stable; but I have observed, that when horses have their hay in one of these wells, they have it in their power to tumble it all over at once, with their muzzles, and consequently to blow upon it, as the term is, and thus render it unpalatable.

I now have only two other material points to allude to, with reference to hunter's stables; but one is very material,—I mean the
formation of the flooring of the stalls. The slanting stalls, formerly to be seen in the best of stables,—invariably in common ones, and the cause of so much disease, by throwing the weight of the horse so much more than nature designed it should be thrown, on his hinder parts, are now nearly exploded. Nevertheless, in one or two works lately published on the horse, it is recommended that there should be as much of this slanting direction of the floor as will carry off the water. Now, although with horses, bedded down as hunters are, this may not be very material, still there is no necessity for any slanting from the manger downwards, but there should be a trifling inclination of the floor on every side towards the middle, where, by a grating placed over a small drain, the urine passes away into a main one, on the outside of the building, and ought, from its value, to be caught in a cesspool, and mixed with the stable litter. This, it may be said, can only answer the purpose with entire horses and geldings, but the fact is, that in the first instance they greatly preponderate in all hunting studs, and in the next, a drain with a grating in the rear, is equally feasible, with a small channel in the flags of the floor, to conduct the urine in its course, which is to be seen in many stables half a century old—rendered necessary indeed, when stalls slanted so much in the formation of them, from head to tail, as all old stables do.

It will be observed, that the plan of stabling here described, is for a private gentleman’s stud, and serves for sixteen horses, or eight, by shortening each wing one half; and I know of nothing necessary to add to it, unless it be a detached box for a sick horse, especially one showing symptoms of a contagious or infectious disease,
or even sore throat. This box should be continually inhabited by a donkey, or a couple of weaning calves, so as to keep it aired for the reception of an invalid horse.

In cases of very large hunting establishments of masters of hounds, stabling of the rotunda form has been recommended, with a capacious ride under a verandah.

I prefer the square, after the fashion of the Billesdon and Tedworth stables. The last mentioned I have not seen, but those at Billesdon appeared to me to be sufficient for all purposes. They contain twenty-four stalls, with thirteen boxes; those of Tedworth have fourteen stalls, with five boxes, giving a greater proportion of boxes to the Billesdon plan.

The stables of the Warwickshire fox-hounds* are most complete, and well worthy of imitation by those about to build those great essentials to a sportsman’s establishment. The grooms’ house consists of an entrance passage, two kitchens, a cellar, and three bed rooms, with fire places.

There are ten boxes with a corridor, a building without a loft or second story, there being no occasion for either as the men are lodged elsewhere. The boxes are divided from the passage by a low wall, and iron bars above, so that a person walking down the centre, sees every horse, without going into the box in which he is. It is, in fact, one large apartment, divided into ten boxes and a passage. Each box is lighted by a skylight, four feet six inches, by three feet, which opens

---

* A Plan of these Stables is given with the Kennel in Part III.—G. T.
PLAN
OF THE
BILLESDON STABLES

GRANARY
18 x 18

STALLS
7 1/2 x 18

COVERED WAY 7 FT WIDE

HAY
18 x 18

BOXES
9 x 14

FORGE
13 x 10

ENTRANCE

SAIDLE ROOM
16 x 18

CLEANING ROOM
10 x 18

BOX
9 x 18

COACH HOUSE
9 x 18

STALLS
7 1/2 x 18

HAY
18 x 18

PASSAGE 4 FT WIDE

COVERED WAY 7 FT WIDE

DUNG PIT
26 x 26
by a pulley, and is ventilated also by an aperture at the top, opened or shut at pleasure. The ceiling is at some distance from the slates, and above it is strewed stubble, or straw, upon a false floor, when additional warmth is required in severe weather. The floor of the boxes is square stone pitching, with a slight inclination from all sides to a drain in the centre. The rack-rail is covered with sheet iron, and the manger lined with slate. The door is so striped with hoop iron, that no horse can gnaw it.

The walls are plain brick work, well pointed, and coloured a very light stone; and the iron bars in front are painted black. The corridor, or passage, has a vaulted roof, and the floor is formed of bricks, set on edge. At the side of it, adjacent to the back wall of the huntsman's house, are the following fittings:—a cupboard, to stow away forks, besoms, &c., a hay bin, another cupboard or closet to keep dung baskets, with four drawers, for rubbers, curry combs, and brushes, and also a place in which to put buckets out of sight, which forms a bench to sit upon.

There is a full-sized door at the south end of this part of the building through which the hunters pass, to be mounted at the kennel door. There is also another door, at the opposite end, into the hack stable, adjacent to which is a water cock. The temperature is kept lower than that of the other stables, but being large it is not materially affected by the opening of the doors, and the horses do well in it. The whole has a very good effect, and is much admired by all sportsmen who have seen it.

The stables—for we have heretofore been speaking of boxes,
consist of a three stall stable, with loft above, used sometimes for hay, at others for oats. There is a trap door communicating from above, and a door immediately over that of the stable.

A three stall-stable, with men's sleeping rooms above. This stable is fitted up in the same form as the hack stable, with bales, moveable at pleasure, and occasionally used as one large box. It is also, in case of sickness, the hospital stable, being near to hot water, and convenient for the men at night.

The walls of all the stables are well pointed, and coloured light stone. The stalls are six feet wide, and ten feet deep, with standings seven feet, tapering to five, made of elm boards, with oaken posts reaching to the ceiling, and helping to support the beams above. The bales are likewise of elm boards, each a foot deep, linked together. The flooring of the stalls is square stone pitching with gutters behind; grating in the centre of each, and behind the posts there is little or no inclination. The mangers and racks are the same as in the boxes, and be it observed, the racks are not above up on the wall, but down, so that a horse feeds from the top. The remainder of the stabling is floored with bricks, set on edge; and in each there is a small cupboard, for brushes, &c., concealed behind the door, and in each corner is a tube going right through the roof, into the open air, as a ventilator, and likewise a large window behind the horses, which opens when required. There are separate external doors to each, and internal ones from the saddle room, in a right line to the hack stable, and through it to the boxes. Each of the lofts has also an internal door of communication.
The saddle-room, with a stair-case leading to the helper's sleeping room, and to the whole of the lofts and granaries, is most conveniently arranged. It is fitted up with a shallow cupboard, (having a sliding door) for bridle, a deep cupboard for saddles, a place for coals, and a closet with water cocks in it, all of which, together with the door at the foot of the staircase, and eight drawers for the use of the servants, form a good looking wainscotting to two sides of the room. The floor is flagged, the walls coloured.

The Hack Stable for four horses, is fitted with short screen, or half stalls, against the mangers, between the horses, with bales as well, from the flank. Above is the granary, in which stand four large bins with lids, and from which spouts descend into the stable below to convey oats, beans, and chaff. The feed is regulated by two small iron slides, used by the groom when holding his sieve under the spouts. There are also a small windlass and pulley, for winding up the corn, and a bean splitter, that empties at once into the bin already spoken of. The door of the granary is over the stable-door, and the window so placed that the air draws over the corn to its advantage.

In the yard is a large water tank, 15 ft. by 8 ft., and 10 ft. deep, supplied by the rain water,—caught from the entire range of building. In case of drought, however, it is supplied by a force-pump, fixed in the boiling-house. It is made of bricks, laid in cement. There is also a leaden pipe from it leading into a boiler at the back of the saddle-room fire-place, which contains sixty gallons of water.
The supply is regulated by a ball-cock, and the pipe likewise serves to convey cold water to a cock in the saddle-room, for the use of that end of the building.

There is one contrivance of rather a novel nature in places of this description. By means of a large cork floating on the surface of the water in the tank, and communicating with a dial in the adjacent passage, the groom is informed when the aid of the force-pump is required.

I think that my readers will agree with me in their approbation of the Warwickshire Stables, as combining almost every thing requisite for the comfort and health of a working stud, as well as for the convenience of the persons employed in the care of them.

THE RACING STABLE.

To animals so artificially brought up from foals, as Racehorses must necessarily be, the comfort and convenience of their dwellings becomes a material consideration; and one affecting not only their own health and well-being, but also their owner's pocket.

A stranger in the racing world, would naturally turn his eyes first towards Newmarket, as the metropolis of the turf, expecting there to find everything done in a superior style. But far from this, Newmarket, like the guide post, shows the way it goes not, and
THE MANOR OF HEYTESBURY'S RIDING SCHOOL AT HURDCourt

COVERED RIDING SCHOOL

BOXES

STALLS

PASSAGE

STALLS

BOXES

GREEN Paddock

HAIR STABLE

Drying Room

COACH HOUSE

SADDLE AND HARNESS HOUSE

BOXES

GATE

GATE
though much, nay, everything may be learned, in the way of good advice at Newmarket, no model can be shown, which it would be wise to follow.

The best Stables in Newmarket, are Col. Peel's, Mr. Ford's (built by W. Chifney), the Marquis of Exeter's, and Pettit's. In the accompanying design, I have embodied all the best features of each, and endeavoured to improve such as appeared to need amendment.

The arrangement of this design tells its own tale. One side of the yard consists of eight loose boxes, and the same number of stalls, with a passage through leading to a covered riding school, a very superior substitute for the "straw-bed," on which trainers usually exercise their horses in the hardest winter seasons. The opposite side is occupied by four more loose boxes, a hack stable of six stalls, —drying room,—saddle, and harness house,—and a double coach house. The rooms for the men and boys are over the drying room, coach house, and harness house. The hay and straw lofts over the stalled stable.

The dimensions of the stalls are six feet (in the clear) wide, by twelve feet deep, the walk behind them, being also, at least, twelve feet wide in the clear. This walk should be furnished with benches, made to turn down into beds at night for the use of the boys.

Each of the stalls should also have a bar reaching at night across the walk, from each stall post to the wall, in order to prevent accidents occurring, in case any horse should break loose.

The divisions of the stalls should be high enough to prevent the
horses from seeing each other at any time; and all that part of the stall or posts, which can in any way be reached by their teeth, should be so striped with hoop iron, or zinc, as effectually to prevent their exercising the propensity for gnawing, so commonly indulged in by all horses. For the same reason, iron racks and mangers are very preferable.

The loose boxes should be ten feet wide, by from eighteen to twenty feet deep. The corners of the posts, and every other tangible point in these, should also be carefully protected from the horses’ teeth.

The principle of ventilation already described, (ante, page 11), may be readily adopted in these boxes, and will be found at once effectual and safe.

On one point I have found all trainers to agree, namely, in disapproval of gratings in the centre of the stall. The Marquis of Exeter’s stable is the only one at Newmarket which has them, and Turner, his trainer, told me that he greatly disliked them. The better mode is to have a fall to a gutter at the foot of the stall, with an iron channel (similar to that already shown at page 24) which can be readily washed out, and keep well cleansed.

No. Racing Stable can be said to be complete without a covered riding school, in which the horses may be walked, if not exercised, in wintry or wet weather. The Marquis of Exeter’s (the only one in Newmarket), of which I have here given a sketch, was confined in space by circumstances, at the time when it was built, but in every
other respect, it is a great ornament, and, moreover, a most useful one, to his establishment. The centre being laid out in an ornamental garden well furnished with flowers. Mr. Stevens, one of the leaders of the American turf, has a riding school in which his horses can be trained, attached to his establishment on Long Island, near to New York.

Finally, care should be taken in the arrangement of your Stable, to plan every thing so that the business of the day may always proceed with quiet regularity, free from all unnecessary bustle, or confusion; for hurry and noise are nowhere more out of place, than in the Racing Stable.
PART III.

THE KENNEL.
KENNELS.

"Quot homines tot sententiae," is a quotation no less trite than true; and on no subject do "doctors" differ more than with regard to the one before us.

Under these circumstances I have determined to content myself with a few remarks in summary of the various opinions which it is my intention to lay before my readers, as being, in my humble estimation, the most practical, and, for that reason, the best, which I could obtain.

First, then, I will submit to their inspection the following

OPINIONS UPON BUILDING A KENNEL FOR A FOUR DAY PACK OF FIFTY COUPLES OF FOX-HOUNDS.

BY R. T. VYNER, ESQ.

DEAR SIR,

According to your request I have committed to paper, in as concise a way as possible, what in my humble opinion are the chief essentials to be attended to in erecting a kennel for fifty couples of...
hounds, at the same time that nothing has been omitted which can in any way throw a light upon a subject which I fear is nine times in ten left to the creative genius of those, whose experience has reached but a very short distance beyond the bricks and mortar, without the opportunity of judging as a sportsman and economist, why doors should be placed in this direction, or windows in that; of the height of benches, the location of coolers, the width of doorways, and many other apparent trifles which will all be found and hunted up to in the limits of the following few pages, which I shall devote to the subject.

In the first place I must say a few words upon the site selected for the building; as I am thoroughly convinced from my own experience, and I may add suffering,* and from a most matured conviction that the disease of kennel lameness arises but from one cause, and that is, from an injudicious and unfortunate selection of the ground for building. Without entering too deeply into detail upon this part of the subject, I can with confidence affirm, supported as I am in this my opinion by such practical authorities as the Earl of Kintore, Mr. Foljambe, Mr. Boycott, the late Mr. Villebois, Mr. Nicholl, Mr. Gifford, Mr. Hodgson, Lord Elcho, &c., &c., besides Jack Wood, John Walker (of the Fife), Jem Shirley, Dick Forster, &c., &c., that the reason for kennel lameness, or rheumatism existing in hounds, is from the kennel being built upon a sand-bed or sand-stone rock, while all the healthiest kennels in England are on a stiff clay. The reason is obvious. Through a light and friable subsoil (such as sand or sandstone),

* The writer had two kennels out of three, where this dreadful curse existed.
an imperceptible vapour is continually exhaling, causing a perpetual damp, which produces rheumatism; while those kennels built upon a clay soil, from the impervious nature of the earth, are invariably healthy. I could enumerate twenty cases either to prove the existence of the disease, or on the contrary the healthiness of the situation, but as you wish me to concentrate my matter as much as possible, I will content myself with making allusion only to one kennel, which I am the more induced to do, from a knowledge that a prevalent opinion exists that the certain remedy in all cases is to place your drains sufficiently deep, and that by so doing you can ensure a healthy kennel. To turn then to my one example (although I could produce a dozen), look at the kennel occupied by Her Majesty's hounds on Ascot Heath, where, on account of the existence of kennel lameness, arches of considerable size were turned under the foundations some few years subsequently to the building being erected; the result is that little or no amendment has taken place. I hope that I have now shown you how necessary it is to select a sound and healthy situation, when about to erect a kennel; build it upon strong clay ground, and you will be safe, and let not 2 or 3000l. be sacrificed in a heap of bricks, as was the case at Thrussington in Leicestershire, where the jail-like kennel of the late Sir Harry Goodricke, costly as it was, proved, from its unhealthy situation, a perfect failure.

If at any time hereafter, it should be my fortunate lot to be enabled to build another kennel, the accompanying plan should be my guide in the erection of the pile. I have visited above half the
kennels occupied by fox-hounds throughout Great Britain, and convenient and replete with comforts as many of them are, I never yet saw one, in which my fancy, or rather my experience, led me to suppose that many attentions beneficial to the convenience and economy of the place might be effected, without deteriorating the harmony, or in any way augmenting the expense attending the erection of the building. To enumerate the various kennels, which the celebrity of the packs inhabiting them has induced me to visit, and to show forth the inconveniences and abuses attending those establishments, is foreign to my present purpose. My endeavour will be to describe, in the best manner my humble efforts will allow, a kennel perfect in its conveniences, approachable in its interior at all points with the greatest facility, without interfering with, and disturbing that repose so essential to animals which must be kept in the highest state of condition; healthy and cleanly in the arrangement of its ventilation, draining, lodging, feeding, and exercise; and economical in the locality of the meal-room, flesh-yard, coal-house, and straw-chambers. It should be also ornamental as a building, and moreover, without sacrificing one single comfort to either stinginess or appearance, a specimen of Sporting Architecture chaste in its design, and economical in the expense attending its production.

To commence with the Lodging Rooms. They should be ceiled, but not plastered, which is quite unnecessary, provided the joints are all struck and pointed; plaster, especially when broken, harbouring ticks and other vermin, besides being a great conductor of damp; large ventilators should be placed above, and there should be a large airy
window on each side, to ventilate and dry the place quickly after washing out. To these windows should be attached shutters, to close and shut either according to the weather. The floors should be laid with flags, or paved with best malm bricks, and if cement be used instead of mortar, the place will be always dry, and firm to the tread, without continually getting out of repair, and by letting the water ouse through, cause dampness and stench. The joints of the flooring, whether of brick or stone, should be so laid that the water may drain along the joints towards the gutter, which should be through the centre of the room, and not round the sides, which causes dampness in the walls. The door ways of the Lodging Rooms should be at least four feet and a half wide in the clear, with the edges of the posts rounded, to prevent the hounds from being lamed when rushing out. The benches may be made either of cast-iron, or wood: the closer they are to the ground the better, provided there is room for ventilation and cleaning out, as tired hounds will prefer sleeping on the bricks, to the trouble of climbing up, if they are too high, and empty themselves on the beds, instead of jumping off when stiff and tired after work. Cast iron has been recommended for the benches, as being free from vermin, and more durable, the hounds not being able to gnaw them. They are far more expensive in first cost, and I have heard from those that have used them, that the hounds more frequently become lamed by getting on to them, than when made of wood; but where wooden benches are used, they should be bound with iron, or the hounds, especially in summer, will soon destroy them. Whether the
benches should be placed round the room, or in the centre, allowing a free passage by the side of the walls, is a matter of opinion, but I consider it less likely that the hounds should be affected by damp when away from the walls. The circular benches are considered by some as a modern invention, but I saw the system practised in Mr. John Warde’s Kennel, at Hungerford, nearly twenty years ago. Walls are frequently wainscotted to the height of about three feet, which is an excellent plan, provided the work is well finished, and the joints quite close. The height of Lodging Rooms should be from ten to eleven feet. Where fifty couples of hounds are kept, there should be three principal (or hunting) kennels, to enable one of the Lodging Rooms to be thoroughly washed out and dried, previously to the hounds coming into it, besides, when hounds are washed after work, they require to be shut up for a few hours in one lodging room, previously to being set fair for the night, to enable them to retire dry and comfortable.

COURTS.

The floors of these should be laid upon the same principle as the Lodging Rooms, the partition walls should be close at bottom to prevent the hounds seeing each other from the adjoining yards, the upper part should be open work of some sort. The most sightly is composed of brick or stone surmounted with iron palings, the height should be at least eight feet. With regard to the doorways, they should
be so contrived, that the huntsman can enter any one of the Courts without interfering with another, and for that reason the large "Drawing Court" should run the whole length of the small Courts, as shown on the plan. The doorways should be of the same width as in the lodging rooms.

**FEEDING ROOM.**

This should be placed adjoining to the Boiling House, and of such dimensions as to allow of the coolers being placed there and not in the Boiling House, the heat and steam of which causes the puddings to ferment. Adjoining to this, as shown on the plan, should be two Courts, one to draw the hounds in when about to be fed from; and the other, to put them over into after having been fed, thus enabling the feeder to perform his office with greater precision. The doors of those Courts which lead to the Feeding Room should be both divided in the centre to enable the upper half to be opened by itself. The motive for having two Courts for feeding, and not using the Courts belonging to the Lodging Rooms, which *might* be so contrived, is cleanliness, and also to prevent tired hounds from being in any way disturbed.
THE BOILING HOUSE.

Should be so contrived that the chimneys of the boilers should be at as great a distance from the Hunting Kennels as possible, as otherwise, in bad weather, the smut is continually falling, and disfiguring the hounds. In the plan the chimneys are so placed as to give warmth to the infirmary for distempered puppies, and at the same time to be out of the way of the other courts. In Mr. Asheton Smith's kennel at Tedworth, the Boiling-house is at least one hundred yards from the feeding room. The smell attending the preparation of the food is thus no doubt got rid of, but the labour is unnecessarily increased by the system. The Boiling-house should be carried up to at least thirty feet in height, having a large ventilator in the centre of the roof.

GREAT DRAWING COURT.

This is a necessary addition to a kennel, where the hounds are considered worth a visit for inspection; it enables the huntsman to draw any particular lot of hounds without disturbing the others; besides, it is a kind of passage Court to and from all parts of the kennel upon all occasions, without using the Lodging-room Courts, thereby keeping the hounds perpetually shut in.
This building should be as far from the other lodging-rooms as the arrangements of the structure will allow; by the plan it may be perceived that I have so contrived it that there is an additional Court or grass yard, an indispensable requisite in the puppies' kennel. The size must be regulated according to the waste land at that end of the building, but the longer it is the better. At the further end of the grass court, is a hospital for such young hounds as are distempered, so contrived as to be remote from the other kennel, and at the same time within an easy distance of the boiling-house, from whence it is approached by an outside door, through which the feeder can constantly pass to attend to the sick hounds, without disturbing the healthy lots. Although this lodging-room is warmed by the chimneys of the boiling-house, it must also be well ventilated by two windows, to which shutters must be attached. Ventilation and good air being quite as necessary to the cure of distemper as warmth.

The best specimens of the more modern Kennels and Stables which I have seen, are, the Atherston at Witherley near Atherston; and the Warwickshire, at Kineton.

R. T. Vyner.
Apropos to this opinion comes the annexed engraving of the plan of the Warwickshire Kennel and stables at Kineton, and the accompanying

DESCRIPTION OF THE WARWICKSHIRE KENNEL.

The Warwickshire Kennel, or rather, the Kennel of the Warwickshire Hounds, at Kineton, is allowed to be one of the best of the present day. Its history will be found not only highly interesting in its detail, but flattering to the good cause:—

The Huntsman's house consists of an entrance passage, a parlour, and cooking-kitchen on the right; another living room on the left, with a large closet, with stair-case and entrance to cellar, on the same side. The cellar is an excellent one. Above stairs are three bed-rooms with fire-places, and one without; also closets for clothes, &c. This house, like that for the use of the groom, is well painted and papered,—in fact, well finished throughout.

Above the saddle-room, is the meal-room, with a trough leading to the pudding copper, in the boiling-house. It is fitted in two large compartments, faced with elm boards grooved together, six feet in height but not actually resting against the wall. The floor is supported by three large beams, not more than five feet apart; the boards of the floor are also grooved together; and every precaution taken, by the aid of zinc plates, to stop mice out. There are a windlass and a pulley for winding up the meal, and a weighing machine to see that
all is right. The trough to the copper, when filled, holds the exact quantity for one pudding.

Three lodging-houses have trap doors communicating with the lofts above. Each is lighted by a large sky light opening with a pulley, and is ventilated by a tube a foot square, running through the roof, from each of the two northern corners of the room.

In the summer months, the trap doors are also frequently thrown open, and there is a sky-light in the loft, immediately above them, that opens also. The benches turn up, and fasten against the wall when the rooms are washed down. The floor is flagged, and the flags channelled, to prevent the urine from spreading. The fall is towards the door, and nine inches from the extreme back. There is a step of four inches into the yards. The floor is laid upon rubble-stone and lime rubbish, which cannot, under any circumstances, be damp, from the especial care that was taken with regard to the drainage of the ground. The walls are brick-work, well pointed, and coloured stone colour. The height to the ceiling, is twelve feet, aspect, due south.

Above the lodging houses is a narrow loft, used for putting down straw, and likewise as a passage from the saddle-room stair-case to the helper's bed-room, by which means any rioting in the kennel by night can be stopped, the men having such easy access to it, through the trap doors.

The fencing of the yards is a four feet brick wall, with open paling above, and round pillars eight feet apart, where the walls do not form the fence. The whole are flagged: the fall about half an
inch to a foot, and the inclination every way to a grating in the centre of each side wall. In the summer months there is an awning of canvass put up at pleasure, so as to cover each of the three large yards to the lodging-rooms. The largest yard is used for drafting and showing the pack.

There is a covered passage for the hounds to stand in, previously to feeding, and a coach-house, also used to shelter hounds that by accident may not have returned with the pack, after hunting.

The feeding-house is lighted by a sky-light, being of the whole height of the building. It is flagged, with an inclination to the centre, under the feeding-trough, which stands in the middle of the room. The hounds are drafted, as fed, into the grass yard, and then walked out into the paddock, in front of the stables.

The boiling-house runs the whole length of the building; the floor is flagged; the tops of the coppers are three feet only from the ground, so that a man can work them, without going up steps. Over each boiler is an arched canopy (four feet above), with a flue, a chimney in fact, fourteen inches by ten inches, of brick work, leading out to the top of the stacks of the other chimneys, to convey away the smell from the boiler, which it effectually does. There are three steps down to the level of the fire-places, which are fitted upon Arnott’s principles, burning coke,—not coal—emitting no blacks, and saving much fuel. The pudding copper is on the northern, and the flesh copper on the southern side, with straining board, and chopping box, for flesh. The pudding trough ranges along part of the northern and the western sides, is two feet six inches from the ground, a yard
wide, ten inches deep, and big enough to hold the entire contents of the copper, so that there can be no excuse for burnt pudding. The force-pump is placed against the western wall, behind the door, by it the water is sent into each copper, and by it, also,—by a very convenient arrangement, the water is forced up into the spoutings of the roof, over the feeding house, and hounds’ lodging-rooms, and so along into the large water tank; or by the intervention of a plug, attached to the piping, it passes into the hounds’ yards, and helps to wash them down.

There are two hospitals for hot bitches, or lame hounds, with small grass yards to each.

The grass yard is fenced in on the north by the wall of the buildings, and on the west by a wall nine feet high; on the south, by a four-feet wall, with open palings above,—and by the same on the east. There is a narrow pitched walk all around, to prevent hounds from scratching out.

The flesh house is a thatched building, with the northern and western sides boarded, so as to admit air; this is the only roof that is not slated.

The huntsman’s garden, the paddock in front of buildings (as to the north side); the place for manure, and the groom’s garden, are also walled in with a four feet six inch wall, with handsome coping. The roads leading to the buildings are thirteen feet wide; the width in front of the stables twenty-four feet,—the whole covered with hard stones, one foot deep, with a coating of gravel thereon.

The style of the elevation is simple Grecian, “neat, but not
gaudy,” coloured both inside and outside, of a light stone colour. The window jambs and sills have some pretensions to style; and on the chimneys is a fox going up wind, as he always should do, to ensure a good run.

But I have omitted a few very necessary appendages to a hunting establishment.—viz.

A little room with a stove in it, for drying wet clothing, of either man or horse. It is lighted by a skylight.

A wash-house—a fomenting-room—a brushing-room, or whatever it may be called—with reference to cleanliness and comfort.

The forge, lighted by a skylight.

The coal and coke-house.

The servants’ cooking-room.—Here is a good fire-place, several useful cupboards, &c.

A low shed, for stowing-away things in the dry.

The well; water excellent and abundant.

The fall of the drainage throughout is about an inch to the foot. The drains are laid with very large tiles, in the shape of the letter O, about sixteen inches deep; and the drainage from the kennel is kept apart from that of the stable, to prevent the smell from the former affecting the horses. There is a small cesspool under each grating in the kennel department, to prevent, as much as possible, any stoppage of the drain.

This excellent kennel was built by subscription, in the year 1839, and the proceedings in relation to it, reflect the highest credit on the sporting spirit of this truly sporting country. The first stone
was laid on Wednesday, July 24th, and the whole establishment—men, women, children, hounds, and horses, entered their respective quarters on Monday, October the 15th, a period not exceeding twelve weeks! And how is this unequalled expedition accounted for? Why, to the praiseworthy zeal of the farmers of the neighbourhood is the credit in this respect alone due. In one day, sixty-one waggons, with nearly three hundred horses, were sent by them for the purpose of drawing the materials; and, for several consecutive days, notwithstanding it was the period of corn harvest, fifty waggons were at work. The total voluntary labour of this kind, amounted to that of one hundred and eighty farmers, and five hundred and fifty-three waggons!! The distance of the carriage of all materials, averaged nine miles; and such was the competition amongst the waggoners that many a waggon broke down under the heavy loads they put upon them, in their ardour to complete the work.

The site on which the Kennel and Stables stand, altogether two acres, was the gift of George Lucy, Esq., of Charlecote Park, near Stratford-on-Avon; and, exclusive of this, and the haulage by the farmers, the total amount of the expense of the buildings, including the Stables, the roads, the drains, the well, the fences, walls, &c., did not exceed two thousand five hundred and ten pounds. Nor does the extraordinary history of this establishment end here. The whole was designed and executed without the assistance of an architect, by that good sportsman, Hugh Williams, Esq., brother-in-law to Mr. Lucy, and the premises are the freehold property of the Members of the Warwickshire Hunt, who have also a fund, independent of their annual
subscribers, to the amount of about three thousand pounds, called "The Stud and Kennel Fund," available for the repairs of the building, the furnishing horses and hounds, and sundry other incidental purposes.

KENNELS, AND KENNEL-LAMENESS.
BY NIMROD.

What has been said of Stables, equally applies to Kennels. If not healthy, it matters not who is the Master, or who the Huntsman; unsound hounds will be the result. But does it not appear that unsoundness, called "Kennel-lameness" is on the increase? or, is it, that in former days, a hound being a little lame, was little cared for by his owner? I cannot take upon myself positively to state the latter to be the case, but I can assert, that, in my younger days, we heard not half so much of Kennel-Lameness as we do now, neither do I believe there were near so many hounds lame, from that cause, supposing it to have existed, as no doubt it did, to a certain extent. In reference, however, to the somewhat impudent assumption, that a master of hounds, of any period, within the last century or two, could not distinguish unsound hounds from sound ones, I can only say, that I once heard Sir Bellingham Graham mention, his being out with a certain pack, that shall be nameless, one half of which he considered to be unsound; and that, on one occasion of their hitting off the scent close to him, and neither master nor men within hearing, he could
not help hallooing to them, as they passed him,—"Go it, ye cripples!"

But to speak more seriously—How is it that neither Beekford nor Somerville, nor Taplin, nor any old writer on hounds that I have ever stumbled upon, says one word which can be said to apply to this disorder, now called the "Curse of Kennels?" I wish some one would answer this question satisfactorily, for to me it is a puzzler. Then another striking fact appears. No one, however learned in canine pathology, has been able clearly to define the disease, still less to find a remedy. Mr. Blaine, for example, so justly celebrated for his knowledge and skill in the treatment of diseased dogs, says nothing of it beyond what may be gleaned from these words. "The healthiness of the situation on which any kennel is to be built," says he, "is an important consideration. It is essential that it be both dry and airy; and it should be warm also. A damp kennel produces rheumatism in dogs, which shows itself sometimes by weakness in the loins, but more frequently by lameness in the shoulders, known under the term of 'Kennel-Lameness.'"

When Colonel Cook's "Observations on Hunting" appeared, I looked into his pages with the expectation of finding something satisfactory on this subject, the result of his experience of different kennels; but beyond the fact which he states, namely, that, place a kennel where you will, on the New Forest, Hants, lameness will shortly appear,—and that some persons (amongst whom I will not class myself), believe it to be the effect of running over the short furze, peculiar to the Forest,—whilst others attribute it to the act of
jumping the high palings surrounding the numerous enclosures, we learn nothing new. Colonel Cook, however, hazards the opinion that it is occasioned by hounds crossing the black bogs of that county when heated by the exertion of running; whereas, in my opinion, no one of these causes has anything whatever to do with it. There is short pricking furze, to a certain extent, in all countries, and wet ground to be traversed, in the best as well as in the worst of them; and if jumping lamed half the pack, what would be the condition of those which hunt over the stone wall countries, and are constantly jumping from great heights! Then on the appearance of that amusing and interesting work, "The Noble Science," by Mr. Delmé Radcliffe, I looked for something new on this subject, but not a word appears.

If warmth prevented Kennel-lameness, there would not be a kennel in England without stoves, and flues, &c. wherewith to heat them; but not a tenth part of them are furnished with them with this view, neither are stoves in kennels approved of. In fact as preventative of the disease in question, they have been found to avail nothing. The cause of this evil lies beyond the reach of such an agent, useful as it is found to be in promoting the general condition of all domestic animals. It will be well then at once for me to say, not only what the cause or causes are supposed to be, but what are the most probable means of preventing their dire effects.

Were a man to make an inspection of all the kennels used by fox-hounds in England and Scotland, he would return home with some extraordinary impressions. In the first place, he would see
some that cost ten thousand pounds, which was the case with those of the last Duke of Bedford but one, and the last Duke of Richmond (at Goodwood); whilst in the second, he would find one, said to be as complete as human ingenuity and experience could render it, built for just a tenth part of the first-named sum. I allude to that of Mr. Thomas Asheton Smith, at Tedworth, Hants. Next, he might be ushered into others grand in their outward appearance, and apparently containing every requisite for the good condition and health of hounds, yet so unhealthy,—or at least so considered, as to be either condemned to destruction, or submitted to, solely from necessity. On the other hand, he would enter a shabby-looking, ill-constructed building, without a lame or unsound hound in it,—at least from the cause above-alluded to. But I will mention a few kennels and their situations, with which I am myself familiar.

Where was a more miserable hole, in the shape of a kennel for fox-hounds, than that in which the Vine pack was lodged, in the late Mr. Chute’s time? and yet I never saw hounds freer from disease, nor any able to stand their work better, than those hounds were. Poor man! perhaps it was because, with ten thousand pounds a-year in land, and a hundred thousand in the bank, of which he was hard put to it for an inheritor, he could not afford to build another, or to make that which he had anything like what a kennel for fox-hounds should be; or it may have been, that finding his hounds sound and healthy, he “let well alone.” There was not even a grass-yard, nor any yard at all so large as his own dining-room. The subsoil was a strong clay.

The kennel of the late Mr. Villebois, in the same county, was
unattractive to the eye, and in a dirty country, but sound; whereas that of Mr. Nicoll, on the light soil of the New Forest, was so unhealthy, as to oblige him to have his lodging-rooms up-stairs and boarded; and even that did not effectually prevent lameness, although the under-arching the Ascot Kennel, situated much on the same kind of land, greatly diminished it.

Although I am not among those who attribute shoulder, or kennel-lameness as it is called, to evils solely arising from the situation of kennels, yet admitting the fact to a certain extent, I will enumerate some instances of how far it is considered to be such by some of our first sportsmen of the present day. Mr. Foljambe, on this account, removed his hounds to a new kennel, eight miles from his residence, and he has experienced the benefit of doing so. Mr. Thomas Asheton Smith took every pains to make his kennel healthy, and in a conversation I had with him, last winter, at Melton, he mentioned the following facts. At one time his hounds were so affected, that he was obliged to keep some of them in calf-pens, to enable them to work out the season. He tried large stones, he also tried chalk, as a foundation; but neither had the desired effect, and he gave it as his decided opinion that nothing but having the foundations stopped or puddled with clay, as the bottoms of reservoirs of artificial water and the heads of mill dams are puddled to make them hold, will be effectual in preventing the exhalation of moisture from the subsoil, believed, and to a certain extent, I may say proved, to be the causa mali*. And perhaps

* A sufficient depth of concrete, would, in my opinion, more effectually answer the same purpose.—G. T.
the kennels, formerly used by the Warwickshire hounds, at Butlers' Marston, may be instanced as a strong corroboration of this assertion of Mr. Smith. They were built on an extremely dirty spot, so much so, that the hunters, whose stabling was close to them, could not be exercised the day after hunting, when walking exercise alone was required, except upon a straw bed, by reason of the dirty and wet nature of the soil. I saw a good deal of this kennel in Mr. Hay's time, and hounds did uncommonly well in it. The subsoil was a strong impervious clay.

The Albrighton kennel was an unsound one, and Mr. Walter Gifford fell into nearly the same error that Mr. Smith did, at Tedworth. He made a foundation of cinders, which, as was the case with Mr. Smith's chalk, suffered the injurious exhalations to rise up.

Mr. Foljambe's new kennel is one of the best constructed that has fallen under my observation; and to show how unnecessary a lavish expenditure is on such necessary appendages to a fox-hunting establishment, I have the pleasure of stating, that, together with a house for the feeder, one for the huntsman, and another for the two whippers-in, the entire cost did not exceed six hundred pounds. The yards are not large; the feeding-house is in the centre (which it should always be), with a covered place before the door, which is divided in the centre by a light iron fence or railing. The same sort of fence runs the whole length of the kennel on the outside, with a flagged way. Independently of the neat appearance of this fence, the advantage of it is apparent in two ways. It enables a person to see something of what is going on inside, without mixing with the hounds; and by cleaning the feet of the hounds, as they walk along it, on their return from hunting or exercise, adds to the cleanliness and fineness of their coats,
by not carrying the dirt into their beds. It is likewise a great ornament to the building.

No horses are kept here, with the exception of two hacks for exercise, and a strong horse for the puppy cart, which I saw start off for Yorkshire with a fine lot of whelps. A grass paddock, in which the kennel stands, supports three cows for the use of the whelps.

I liked Lord Fitzwilliam's kennel at Milton. It is not large, which, in my opinion, no kennel should be. The fault of the Quorn kennel lies in this extreme, and such is the case with that at Badminton. The lodging-rooms in each, the Quorn especially, are by far too large, for which reason they are cold and comfortless in the hunting season; and hounds will be found shivering in them when they ought to be quite comfortable. Mr. Hodgson is so far of this opinion, that, in the winter, he does not use the two principal lodging-rooms at Quorn, but avails himself of two smaller ones not so much used in former times.

I liked the Billesdon Kennel, built under the direction of Mr. Smith*, who now hunts the Pytchley; I think it is well arranged as to its compartments, but one great mistake was made. I allude to its being placed just behind the stables, so that the sun is shut out from it, which never should be the case; although were I to build a kennel I would have two aspects, one northern and the other southern, as shall presently be explained. Then again, the Billesdon Kennel is in the centre of a village, which is a very great disadvantage, being not only

* To the kindness of Mr. Smith I am indebted for the accompanying Plan of the Billesdon kennel, as well as for that of the Billesdon Stables (given ante at page 38), both of which are taken from his "Diary of a Huntsman."—G. T.
annoying to hounds by the noises which are perpetually created by boys and others, but from the fact that it would be next to an impossibility to breed healthy puppies without a greater range for the bitches. Had the kennel been placed where the stables are, it would have been better as far as aspect and sun are concerned.

Were I to build a Kennel I would endeavour to put into practice the following notions of what I think would best conduce to the health and comfort of hounds.

To arrive at perfection, I would, were it possible, place it as that at Tedworth is placed, on a conical spot, that is, on ground falling on two sides; which, by doing away with underground drains, does away with the nuisance of rats, which in time will undermine the building. By the help of gutters, inside and outside, the washings of the floors, &c., are carried off without remaining to cause damp. I prefer brick to flag floors, as less disposed to damp, and to holding water, in case they should be broken, or worn in the centre. The roof should be well supplied with spouts, the water from which could not fail to be wholesome for use, and the heads of all the drains should be grated. The situation is most important. Above all things, sand, sandstone, very light loam, or, in fact, any porous subsoil, should be avoided. The evils of this are clearly set forth by the writer of a series of clever papers in the "New Sporting Magazine," under the signature of "Actæon," * a quondam master of hounds.

* "Actæon," the writer here alluded to, is R. T. Vyner, Esq., whose "opinions" I have already given, (ante p. 49.)—G. T.
Here then is one cause of lameness in hounds; the warning voice on one point is now sufficiently raised, and leaves nothing more for me to say than that, if the foundation of kennels be clay, there is reason to believe the evil will be to a great extent, if not entirely, prevented; and I will strengthen this assertion by the following extract from the letter of a brother-master, with whom Mr. Asheton Smith had been in correspondence on the state of their several kennels, both being at that time, to use a kennel-phrase, unsound:

"In respect to the mode adopted by Tom Smith to remedy the liability to kennel-lameness," says my correspondent, "your recollection has not failed you. It is his intention to make a foundation of clay, such as no damp shall rise through. I think his plan will succeed, and I am quite satisfied of the soundness of the principle, believing that a stiff clay foundation impervious to any moisture rising through it, will secure him, in a very great degree, from the disastrous effects of evaporation through sand or gravel."

As regards health, the next thing to be considered is aspect. South is decidedly the best point; but to obviate the effect of too great heat in summer, I should be induced to have two small yards, one facing towards the south, and the other towards the north—the latter of course not to be used in winter. I am not prepared to point to any kennel with this additional advantage, but I am sure of the good effects that would arise from it. A dog likes to bask in the sun, and nature intended he should have such enjoyment; but he does not like too much of it—at all events he may have too much
of it, for his well-doing, when eating kennel-food. This was the objection I found to the newly erected kennel at Overton, in Hants, to which the Vine hounds were removed, after Mr. Chute's decease. The aspect is south-westerly, and the heat in summer from mid-day till the sun's decline too much. It may be altered by this time; but such was the case when I last saw it.

With reference to shade, some masters object to trees in the grass-yard, as productive of damp. No doubt dampness, from any cause, is injurious to hounds when kennelled; and I recollect Lord Kintore attributing his hounds becoming unsound all at once one season, to lying on the straw of wheat which had been subjected to much wet in the field, during a bad, and consequently a late, harvest. Mr. Smith, however, has trees in his principal grass-yard at Tedworth, and so also has Mr. Foljambe at his Home-kennel at Beilby; but Acteon, in the letters I have alluded to, offers satisfactory objections to them on the authority of writers who have scientifically exposed their effects—adding to this authority, the concurrent testimony of Smith, Lord Yarborough's huntsman, as to rheumatism being produced by hounds lying on cold ground in the shade, particularly after work, a supposition which has reason on its side.

The grass-yard, for the young hounds, need not be large, from one hundred to one hundred and thirty square yards will be found sufficient. That at Quorn is larger, but a mistake is made in the Bitch House being in the corner of it, whereas it ought to be as much away from the body of hounds as may be possible. In this case (i. e. at Quorn) the bitches must be brought through the yard to feed,
and the scent they leave in passing and repassing, is often the means of setting the dog-hounds fighting, and thus occasionally laming themselves.

The grass-yard for working hounds, if well fenced, so that hounds can neither scratch nor leap their way out of them, cannot be too large; but they should not be left in it during the hunting season. Nothing is more likely to give them cold, and as this bad practice does exist, and has long existed in some kennels, there is reason to believe that, to it, and not to damp subsoil altogether, may lameness have been traced.

The Lodging-houses in the Tedworth Kennel, are thatched with reeds, which, provided rats do not harbour in them, must be desirable as moderating the heat in summer and promoting warmth in winter.

I am all in favour of small lodging-rooms, well ventilated. About as much space as two horses occupy in their stalls, is quite sufficient for twenty-five or thirty couples of hounds, if the benches are placed against the walls; but I would prefer a little more space, so as to have the benches in the centre, as it often happens that a hound gets bitten and lamed, by passing over others, an evil which the benches in the centre obviates. The benches should be also in compartments, and only just so many of them as are required should be in use, in the hunting season. If there is much spare room on beds, hounds will dirt them, rather than move off them; and so it is with too large lodging-houses. If they are much larger than what the beds require, hounds will empty themselves in them, instead of going out into the yards. It is a mistaken notion, that large
lodging-houses and large yards are sweeter than small ones. The converse is the case with a good feeder and attentive huntsman. The hounds will be cleaner, sweeter, and warmer in small ones, for the reasons already given. During my visit to Badminton in 1839, I observed the inconvenience of large lodging-houses, even when hounds were not in work, during the frost; and Long the huntsman, told me, that they felt it still more so, after their return from the field, on certain days. Small lodging-houses however, as indeed all others, should be well ventilated. The ventilation should take place high up the walls, and be capable of being increased as circumstances may require,—and the window should be thus arranged:—it should be made to shut close at night in the winter, with wire-work the full size of the opening for summer, and it should be opposite to the door; or, if there are two windows, they should face each other, as high above the benches as a man can reach to shut them.

The chief use of a grass-yard adjoining the kennel, or, indeed, within the precincts of it (and of course independent of the paddock to move hounds into after feeding, which should not be of a less size than three acres), is to turn hounds into when fed late in the evening; or, of a moonlight night, if a huntsman would take the trouble to do so previously to a hunting-day. I have it on the best authority, that hounds so treated run better together over a country.

Mr. Smith's boiling-house and flesh-house (at Tedworth) are a hundred yards' distant, to guard against the smell from them infecting the atmosphere of the kennels; but I shall presently show that the necessity for this extra expense and trouble,
may be obviated. There is, however, something truly aristocratic in the idea.

The feeding-room should be so placed that the hounds may be drawn in to feed from one court, and turned out through another door into a second court; as by this means they can be fed more easily and regularly than by turning back those which have been fed amongst those that are waiting their turns. The door through which they are drawn in should be divided in the middle, the upper part being left open during the time of feeding, to assist the feeder in the act. The feeding-room should always be separate, as the heat of the furnaces will cause the pudding to ferment.

I need scarcely observe that a kennel should not be near a road if it can be avoided, at all events the feeding-room should not be near it, for reasons that are obvious.

Water fountains should be placed at just such a height as a hound can conveniently reach with his mouth, when raising himself up, standing on his hinder legs. It is better so placed than on a level with the floor, as it will in that case often be defiled. Good water, as well for drinking as for the boiler, is a point of great consideration in kennels.

I see no occasion for stoves in well planned and well regulated kennels. Mr. Blaine, in his article on "Healthiness of Situations for Kennels," expresses his surprise, that both Mr. Beckford and Colonel Cook should doubt their utility, especially as the former writer says, that "warmth is in the greatest degree necessary to hounds after work." No doubt it is, but if a lodging-house is no larger than
I have recommended its being, and hounds are _not washed_ on returning from hunting, they will always be sufficiently warm in them. Should, however, artificial warmth be considered necessary, Mr. Blaine's remark on that subject is such as we should look for from a man of his scientific knowledge of all that relates to the health and diseases of the canine race. "A kennel," he says, "may be artificially warmed by stoves, as it is (rather was) at Goodwood and elsewhere; but it is better done by means of pipes filled with hot water, which, passing through the lodging-rooms, diffuse an equitable heat without deteriorating the air."

I now arrive at a part of my subject, which I ought to approach with diffidence, as indeed all subjects should be approached when theory, and not practice is our guide. I have never had the experience of kennels that masters of hounds have had, and would it not therefore be most presumptuous in me to assert my belief, that such a disorder as that which is called Kennel-lameness, does not in reality exist? No doubt it would, but some staggering facts present themselves when I attentively and calmly—philosophically, I cannot—look into all the bearings of the case. I first ask myself this question:—How is that, in my younger days we never heard of Kennel-lameness; nay, indeed, divesting the term of the advantage of modern phraseology, of hounds being lame at all unless from accident, or becoming shaken and infirm from not being made of that firm, iron-bound material, which the work of a fox-hound requires? How is that, in my younger days, masters of hounds began the season with fifty or sixty couples of hounds, and, bating
casualties, left off at the end of it equally strong in their kennels, and able to make perhaps a valuable draft; whereas, we now hear of one half of the packs being disabled by disease, some indeed obliged to be stopped in their work until replenished? The answer given is, "the kennel is damp, and the hounds become lame in consequence." Well, suppose I were now to lay down my pen, and walk to my gardener's house, I should see a smooth-haired cur, not a bad sample of his kind, if "kind it can be called, inhabiting a rotten old barrel, not weather tight, in which he has been for three years, without being once let loose. Were I to go a hundred yards further, a similar sight would present itself; yet were either of those unhappy captives to be let loose, I will answer for his showing at once that Kennel-lameness is all moonshine with him. In my rides through the country, I see more staggering facts than these. I see dogs tied up at the gable ends of small farm houses and cottages, lying on the bare ground all the year round, their only protection being a few upright slabs, not weather tight, at the sides of their kennel, if such it can be called, and some turf or straw for a roof. The manner in which these animals fly at me, to the extent of their chains, as I approach, shows that there is no sore place about them. Then comes the shepherd's dog. In France, and on the Continent generally, his only resting-place during sixteen of the twenty-four hours is on the ground, sometimes hot, oftener wet and cold; and where does his Kennel-lameness show itself? It is true he is generally short-lived, because his work is harder than that of the foxhound, and his nature is not supported by good food. But may not food
have much to do with this modern disease, if such I may define it? Is it not just possible that the rinsings of the soup pot and parings of potatoes, which these dogs eat, in short their poor living keeps them free from inflammatory diseases, which all rheumatic affections are, whereas high keep encourages them? or, what I am much inclined to believe, have we not a more tender animal in the fox-hound of the last twenty years, than we formerly had, and consequently one more prone to disease from the influence of damp? These questions must be answered by wiser heads than mine; but this much I am quite prepared to assert, that the lameness of hounds in kennel may, to a great degree, I will not say wholly, be prevented by what is called management.

In the first place washing hounds after work must be injurious to them, and that has become a fashion of modern times. If they are washed at all, which I do not believe to be necessary, at all events in kennels wherein lameness has appeared, it should be strictly avoided, it should be on the day following, and not in the evening of a hunting day. Mr. Hodgson told me that the Quorn kennels never had a case of Kennel-lameness until his late huntsman took to washing his hounds after hunting, when he at once had four or five couples lame from that cause. He deprecated even their access to water in any way after hunting, and I believe he is quite right in so doing. Although mistakenly said to be his best doctor, the tongue of the dog, with the aid of clean straw, is his best and safest instrument in cleaning his person; and if he can be brought to his kennel with tolerably clean feet, as Mr. Foljambe's flagged passage to a great extent enables him to be brought, he will not be long ere he is comfortable in his bed,
after his belly is filled. The mere passing through a few inches of water, however, cannot be objectionable on the score of health, and when Mr. Blaine asserts he has heard that the Duke of Cleveland's pack walked through the like depth of warm broth, he may assure himself of the fact, by a reference to my "Northern Tour," in which I state my having myself witnessed it.

Then there is another mode as a preventive of lameness, which I have the best authority for saying deserves particular attention, and that is the frequently turning hounds off their benches during the day, even if it were to the extent of every two hours throughout the entire day. This wears the face of probability from the well-known fact of horses which lie loose being so much more free in their action after hard work, and lasting sound, longer, than those which are constantly tied up. The calculation is to the extent of two years in fourteen on an average. The great object here is to promote a rapid absorption of lymph, thrown out during exertion in their work. Have there been no dissections of bad cases of what is called Kennel-lameness in hounds, by which some insight as to the effect, if not the cause, might be had?

I will conclude with stating, that I do not intend absolutely to deny the existence of a disease which, being produced by the kennel, is properly termed "Kennel-lameness." Some kennels are, no doubt, more unhealthy and prone to produce rheumatic affections than others, but that by proper management, and avoiding, as much as possible, exciting causes, their effects may be very much lessened under any circumstances, if not entirely obviated, is my firm belief."

Nimrod.
From an analysis of the foregoing opinions, which, it must be allowed, deserve the greatest attention from the large general experience of the writers, it would appear that “Kennel-lameness,” if arising at all from the situation or soil of the kennel, may be efficiently prevented by the substitution of some impervious substance, for the naturally porous surface soil; therefore if the earth be carefully removed from the whole area upon which the superstructure of a kennel is to be raised, and the space filled in with a mass of hard core and concrete, three, four, or even six feet in thickness, kennel-lameness would appear no more from that cause. This I would vouch for. But it does appear to me, that the cause here given, viz., “earth-damp,” is not a good and sufficient one; and of this the kennel at Goodwood, which has been already alluded to, is a striking example, for it is paved with bricks, immediately beneath which, are tanks holding ten thousand gallons of water.

The cause assigned by Nimrod for the vast increase (if not the origin) of kennel-lameness, seems to me more reasonable, when he refers it to the high feeding and inflammatory management of hounds. Were it satisfactorily proved to be attributable to the other cause alone, I would at once and fearlessly undertake to remove this dreaded and distressing evil from all the kennels in England.

The Plan of Mr. Harvey Combe’s little kennel at Cobham, is given here as a perfect example of simplicity, convenience, and economy combined.

The Petworth kennel is very convenient in plan, and complete in execution. Circular beds in the centre of the Lodging-houses are
adopted here, as preferable to those set close against the wall, in which opinion I cordially concur. This kennel has one great improvement well worthy of general adoption, in a chimney and flue connected with the inside of the copper, which carries off all the steam arising from the boiling operations, and thus gets rid of the close and unpleasant effluvia, formerly attendant upon the preparation of the food. In this kennel also, is a large bell, which has a communication with the huntsman’s bedroom. When punishing refractory or riotous hounds in the day time, he rings this bell loudly, —and thus, should there be rioting at night, an application to the bell rope is generally as effectual as the actual lash.

The Earl of Radnor’s kennel, at Kingston in Oxfordshire, is also very convenient, when it is considered that it is not altogether newly built, advantage having been taken of buildings already in existence.

I shall conclude this part of my subject by giving a design for a kennel, for about forty couples of hounds, or a pack hunting three days in the week.

In this design I have endeavoured to introduce all that is essential, and to avoid superfluous building. The chief object has been to combine usefulness with neatness and convenience.

It will be seen in the first place, that the working hounds are intended to be kept as quiet and private as possible, without interruption or annoyance from the continual business of the kennel.

2ndly. That the hot bitches are as far distant as possible from the working pack.
PLAN

OF THE

KENNEL AT PETWORTH.
3rdly. I have endeavoured to obtain a free communication and easy access from each part of the kennel to the other.

4thly. I have omitted a granary or meal store-room, because I think it better placed at a distance.

There should be a green yard, (if possible on the northern side), no matter how large, but containing an area of not less than 150 square feet. The shape is of no consequence.

A weaning yard will also be found useful, especially if the puppies cannot be at once sent off to their walks. It should be at least sixty or seventy feet square.

In this plan, I think that the only superfluity is the covered court, which might be dispensed with, but it is very useful, though not absolutely necessary. The multiplicity of doors is necessary, as it affords access from each court or department direct to the feeding-house and covered court, and from the feeding-house to the boiling-house, which latter should, by no means, be a thoroughfare.

Much consideration will be required as to the drains, and this subject cannot well be entered into generally, as much must depend on your locality; but let them all be open. I would not have one covered drain on the premises.

It would be better if there were a grass field immediately at the back, for the hounds to walk out in after feeding, and occasionally at other times. This is very conducive to cleanliness and health.

If external appearance be material, the straw-house and flesh-house might be removed elsewhere. I have placed them in the most convenient place to save labour.
The northern aspect should be protected as much as possible from winds, and high banks are most useful on the western and south-western sides as shelter from wind, and the western sun, which sometimes does much mischief in summer; a ten-foot bank and a belt of trees and evergreens afford the best of shade and shelter.

The large green yard I mentioned, should adjoin the apartments for the young hounds, and is very essential when the young hounds come in from their walks, viz. from Christmas to the end of the hunting season, until which time it is impossible to commence the work necessary for them. But as soon as the huntsman has time, or has finished all the business consequent on the close of the hunting season, he will take the year's entry in hand, and it will be, or ought to be, his constant daily care, until the commencement of the ensuing season. I mention this particularly because it is too frequently thought lightly of, and neglected, or carelessly performed, but the efficiency or deficiency of a pack of hounds may generally be traced back to the summer management, the details of which however do not belong to the Architectural arrangement.

An enclosure of three-quarters of an acre at least, is, I conceive, necessary for the purposes of a kennel, exclusive of the grass field at the back.

The consumption of good old meal for such a pack as I have alluded to would be about fifteen tons per year. I would recommend that it be kept in a granary at a distance from the kennel. Four bins, each of the capacity of about 300 cubic feet, will be necessary. Above all things I should recommend that a dry place be selected, and
that the meal itself be stowed in as dry as possible. It should run from the bags like dry sand. This is indeed a most essential point as concerns both health and economy, and it is too frequently neglected. A granary on the old plan of building, on copped stones, properly fitted up, is the best that I have yet seen.

If it be thought necessary to have the stores at the kennel, it would be easy to have a second story, and rooms might be fitted up for the kennel servants also.

A general estimate of the expense of a kennel may be easily made by multiplying the area occupied by the buildings, by their average height, and that result divided by 3, will give the sum in shillings, which sum ought to include all fittings, &c.
GREYHOUND-KENNELS.

But few directions are necessary for building Greyhound-kennels, the following original observations emanating from one of our most celebrated coursers, will be found to touch practically upon all the important points of this subject.

From long experience I have found out, that not more than four greyhounds should ever be kept together in one compartment; and also, that throughout the winter, warmth of some kind is indispensable to their being kept in good condition, or even in health. So satisfied am I of this, that if I had to build a kennel, I would have it heated artificially, and as regularly as if it were a conservatory (either by hot-water or a stove); but having a great many buildings of different kinds and in different places, I have so contrived matters, as to have four separate places for keeping my greyhounds, ready for the different Meetings, heated by horses lying in loose boxes immediately adjacent; the boxes and kennels are ceiled, and I put a partition of thin deal between the horseboxes and the sleeping places for my dogs, and by constantly keeping a horse in each, the temperature is just what it ought to be; and I have fancied that the dogs are not so chilly in coming out of a place heated by animal heat as by any other. They are always exercised, either with a horse, or by a man taking them out on foot for an hour or two, whilst the kennels are cleaned.

The floors of the kennels are on an inclined plane, bricked,
with gutter-bricks for all the water to run off; the windows are glazed with wire lattice over them, and so made that I can admit air when wanted. I have always moreover a vent at the top for air.

I have also four kennels that do not partake of the benefit of artificial heat; the sleeping-places are seven feet by five, and on a bench for all filth to drop through; they are ceiled and slated, and have deep rafters, between which they are closely thatched under the slates so as to keep them cool in summer and warmer than slates only in winter; and to each of these sleeping-places there is a paved outlet of double the dimensions of the sleeping-places—they are in a row, and lie to the south. This is where the brood-bitches and dogs that are not in running order lie in winter. As for my puppies I shut them up six or eight together in close sheds in the farm-yard, where the straw is constantly changed, and I seldom have any illness or distemper. There should always be a heated hospital—but if the dogs are well kept and properly cared for, and never fed without their food being salted as you would savour your own food, the hospital will not be often wanted.

I shall now answer your queries, wherein greyhound-kennels should differ from others. They should be in small compartments sufficient for four greyhounds and no more, and above all they should be of equal temperature. The temperature good for a horse is also good for a box of four greyhounds. The feeding-place should be under cover and close at hand. Not more than four should be fed at a time, in short four are too many, for one will eat twice as much as another in the same time. In summer, the greyhounds may be
let out in yards, but not more than four dogs in the same yard, and the yards should be walled, so as to prevent them from looking out. Greyhounds should be taken out with a man on foot every day, during the summer, to run and play about. It keeps their muscles in good play, and they will be as quiet again in their kennels after it.

I cannot help thinking but that one fire might be so contrived as to heat the different compartments with boiling-water, and by shutting the furnace off by a damper where you want to use the furnace for boiling the food, make the same constant fire do for both. Shutting the damper under the cooking furnace when it is not in use. At all events a very small fire would keep the water boiling so as to regulate the temperature.

There should be a glazed window with wire lattice on the inside, high up on the south side in each sleeping-compartment, hanging by a centre so that you may regulate the air to be admitted.
PART IV.

RACE-STANDS.
THE GRAND STAND AT ASCOT.

(Vide Title.)

The first brick of the Grand Stand at Ascot was laid on the 5th of December, 1838. The first stone was laid with due ceremony by Lord Erroll, then Master of Her Majesty's Buckhounds, on the 18th of January, 1839, and on the 30th of May in the same year, the building was opened to the public.

The capital employed (10,000l.) in the erection of this Stand was raised in one hundred shares of 100l. each, and the annual receipts are appropriated as follows:—in the first place the Shareholders receive five per cent. on their respective Shares; then the salaries of Cheque-takers, and other incidental expenses, are provided for; next 500l. is applied to the redeeming of five 100l. Shares, selected by ballot from the whole number; and the residue is divided between the Race-fund and the Shareholders, in the proportion of two-thirds to the former, for the benefit of the Races, and one-third as a Bonus to the latter. By this arrangement it will be seen that the number of Shares is every year diminished by five, so that in the course of seventeen years, the Stand will become wholly and altogether the property of the Racing-fund. Should it therefore
continue to fill as it has hitherto done, an addition of from 1500l. to 2000l. per annum to the public-money given at the Ascot Meeting, may be fairly calculated upon. The number of Shares now in existence, is eighty-five; and the Shareholders receive about 8l. per cent. annually.

The architect of the Ascot Grand Stand was Mr. Higgins. The building occupies an area of five thousand and forty-four square feet, being ninety-seven feet long by fifty-two wide, and fifty-five feet in height. It is raised seven feet above the level of the course, and is intended to accommodate three thousand persons.

The original cost of this Stand was 10,000l, but in consequence of the very general complaints of the want of accommodation, 1500l. was expended in alterations in the roof, &c. after the Meeting, 1839.

THE GRAND STAND AT LIVERPOOL.

This, as well as the Course on which the races are run, was the private speculation of Mr. Lynn. The architect was Mr. John Foster; the cost nearly 10,000l., and it is calculated to accommodate two thousand five hundred persons. This Stand is leasehold of the Earl of Sefton for an unexpired term of twenty-nine years.
THE GRAND STAND AT GOODWOOD.

The Grand Stand at Goodwood was built by his Grace the Duke of Richmond, and the Course levelled and considerably improved, about ten or twelve years ago. It was originally built without the balcony, which was added about five or six years ago.

The Design of the Goodwood Stand is very plain, and its high roof and plain bare sides, give it a heavy and cumbersome appearance. Several recent alterations and additions, have much improved the arrangements, both internal and exterior; but the Entrances still remain very inconvenient, and the Refreshment Room low and incommodious.

THE GRAND STAND AT EPSOM.

In the year 1829, a Company styling themselves "The Epsom Grand Stand Association," put forward a Prospectus proposing to raise a capital of 20,000l. in one thousand shares of 20l. each, for the purpose which their title sufficiently explains. The Shares were not all disposed of, and money was borrowed to complete the building, the cost of which was about 16,000l. It is calculated to accommodate five thousand persons, and stands upon an acre of ground, held of the Lord of the Manor for a term of ninety years, at a ground-rent of 30l. a-year. The architect was Mr. Trindal.

For several years no dividend was paid on the Shares, the whole of the proceeds having been devoted to the liquidation of the
debt, and the making improvements and repairs; but during the last four years the Shareholders have received 5l. per cent. per annum.

THE GRAND STAND AT CHESTER.

This Stand is given here as a very neat specimen of a building well adapted for the locality of a minor race-course. In other respects it is unworthy of a detailed notice.

THE GRAND STAND AT DONCASTER.

This Stand was built by the Corporation of Doncaster at an expense (I believe) of about 20,000l. It is a very strong and capacious building, but rather too heavy in appearance.

Of all these buildings, that at Goodwood, though not by any means the most elegant, is by far the best adapted for its purposes. Raised on an eminence above the Course, its lofty roof gives an admirable and almost uninterrupted view over ground of every description. Its principal defects are the narrow entrances, an insufficient staircase, and a low and close refreshment-room. The unsightly roof, too, detracts much from the elegance of its appearance.

The chief fault of the Epsom Stand has been its costliness, from a want of experience in the designer, and care in the construction.

The Doncaster Stand is very heavy and clumsy in appearance,
and not sufficiently raised either in the basement or roof to give an uninterrupted view of the whole ground, although the Course is round and tolerably level. This might, and ought to have been accomplished.

The Ascot Stand, although built last, and therefore with the benefit of the experience of all the others, is, and will ever be, by many degrees the worst. Originally badly planned, the public were loud in their complaints at its first opening—and although, since that time many material alterations have been carried into effect, the great purpose for which it was built, that of seeing a Race well either from the one pair floor or from the roof, remains to be accomplished. As a speculation it has been very successful, but as an example of a good Race Stand it is a signal failure.

But all these Stands have one fault in common, from the very form of their construction, viz. the straight front, which prevents the general body of the spectators from having a good view of any race which is run upon a straight course parallel to the building. This defect is most visible in races run on the New Mile at Ascot, and the T. Y. C. at Goodwood.

This can only be remedied in two ways. Firstly, by placing the straight-fronted stand "out of square" with the course,—that is to say, at an angle to, and not parallel with it, thus:—
this, however, would give a very awkward appearance to the elevation. The other remedy will be to adopt a circular front, as shown in the annexed Design.

In this Design I have endeavoured to embody the several excellencies, and avoid the faults, of the various Stands which I have already alluded to. Its principal novelty, the circular front, possesses many advantages which can be hardly shown in a Plan, or detailed in a description, although easily exemplified in a Model. But I confidently submit it to public opinion as being capable of affording more accommodation than the old style, in an equal space, and of enabling the spectators to command a better view of all the ground, but more especially of that portion which may run directly parallel with the Stand on either hand.

The accommodation here provided comprises.

*In the Basement Story*—a roomy Kitchen and ample Cellars.

*On the Ground Floor*—a Vestibule or Hall, 28 ft. by 24. Betting Room and Steward’s Room, each 33 ft. by 20, opening upon the terrace in front. Corridor and two roomy Staircases, with two approaches, and a way out through the Vestibule. A Refreshment Room to be let for the use of the Public, 45 ft. by 21. A Private Room, 16 ft. by 13, and a Ladies’ Cloak Room of the same dimensions. All of these Rooms to be 12 ft. 6 in. in height.

*On the One Pair*—a Room (together with the Balcony) containing about one thousand persons, and 18 ft. 6 in. high. A general Refreshment Room for the visitors to the Stand, 70 ft. by 21, and 14 ft. high; and two Private Rooms, one 15 ft. by 9, and the other, 19 ft. by 9.
The Roof contains the usual standing room for spectators.

I estimate this Design to accommodate two thousand persons, and the cost at 3\ell. each person, which ought to be about the general average, although Epsom, Doncaster, and Liverpool, much exceeded this allowance.

Thus have I brought my reader from the Beginning to the End,—from the Stud Farm to the Race Stand. And here, having reached the goal, I leave him at "the end of the course."

FINIS.
LONDON:
Printed by Walter Spiers, 17, North Audley Street.