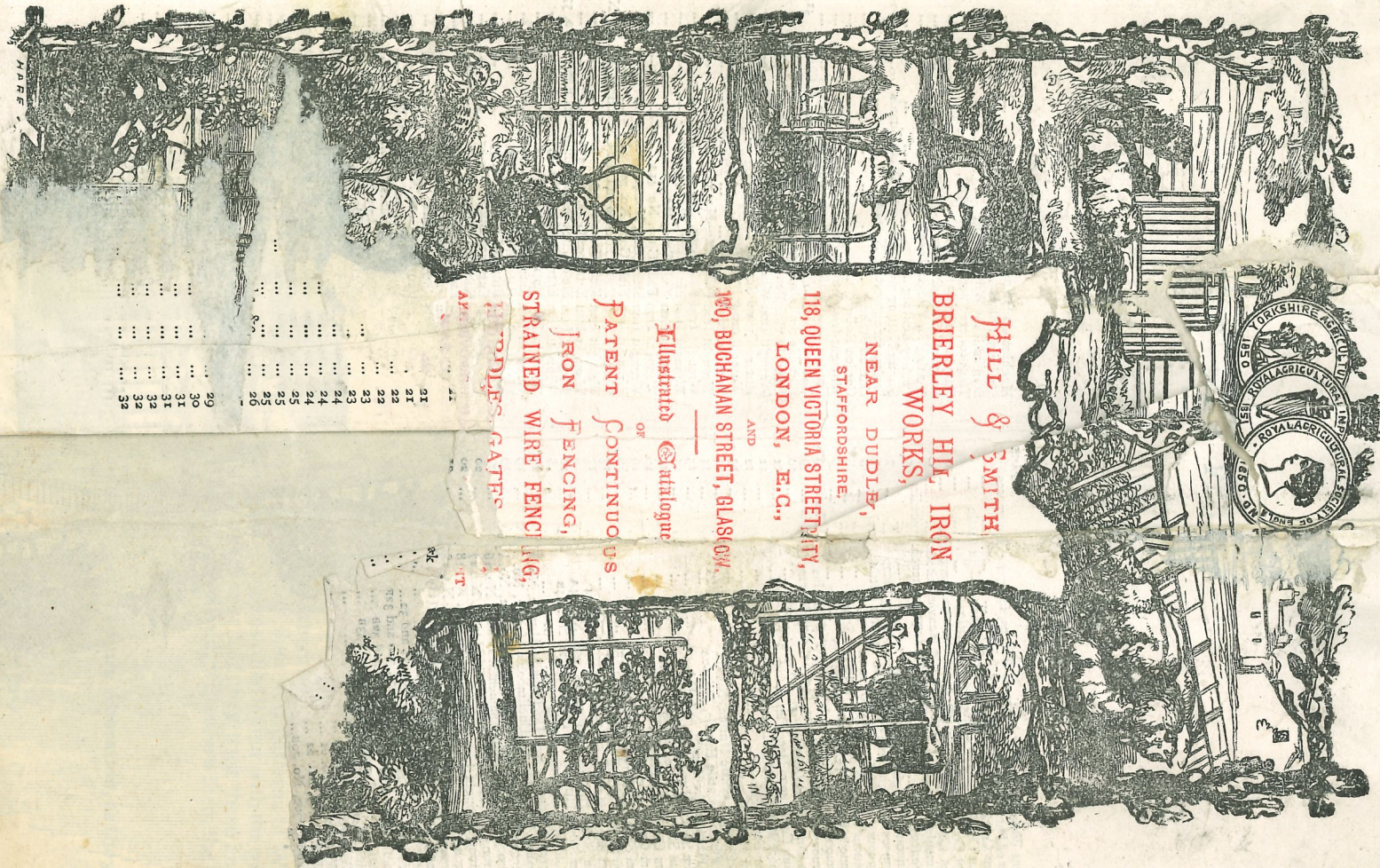




HILL & SMITH
BRIERLEY HILL IRON
WORKS,

NEAR DUDLEY,
STAFFORDSHIRE,
118, QUEEN VICTORIA STREET, CITY,
LONDON, E.C.,

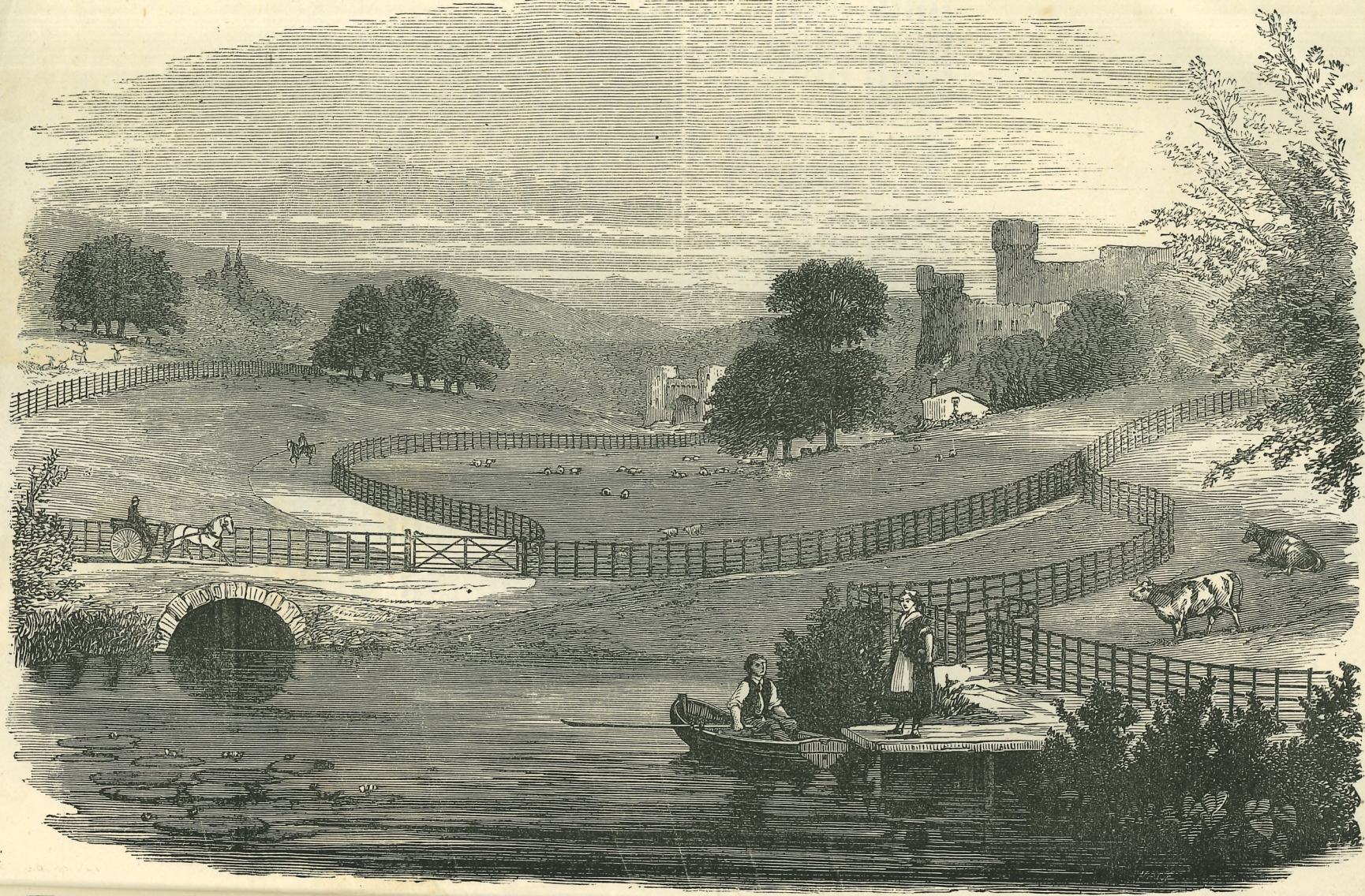
AND
120, BUCHANAN STREET, GLASGOW.

Illustrated Catalogue
OF
PATENT CONTINUOUS
IRON FENCING,
STRAINED WIRE FENCING,
AND ROLLING GATES

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HILL & SMITH'S CONTINUOUS FENCING fixed in curved lines and over undulating surfaces without side stays or any other extras.



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MANUFACTORY—BRIERLEY HILL IRON WORKS, NEAR DUDLEY, STAFFORDSHIRE.

BRANCH OFFICES:

118, QUEEN VICTORIA STREET, LONDON, E.C. 1 180, BUCHANAN STREET, GLASGOW.

FURTHER REDUCTION IN PRICES OF IRON FENCING.

HILL AND SMITH, in issuing the present edition of their Catalogue, beg to thank their numerous Customers throughout the United Kingdom for the very liberal and constantly-increasing support which has hitherto been accorded to them, and a continuance of which they hope to receive in the future, assuring their Customers that no effort shall be wanting on their part to merit the same.

The very low prices which now rule in the Iron Trade, enable H. & S. to offer their Continuous Iron Fencing, Hurdles, and Wire Fence materials at correspondingly low rates, which they confidently anticipate will lead to a great increase of business.

Their Patent Continuous Fencing, with the notch and wedge fastening so well known in England, Scotland and Ireland, as well as by Settlers in the Colonies, must doubtless eventually supersede, in a great measure, all other kinds of fencing—combining, as it does, the great requisites of strength, portability, and economy. H. & S. have erected a large extent of it at Balmoral Castle, for Her Majesty the Queen, where it has given the highest satisfaction; and it has been further proved at the seats of more than fifteen hundred noblemen and gentlemen in different parts of the country to be the best and most economical Fence for Deer Parks, or for general purposes; whilst its use so extensively on the London and North Western and other Railways, has proved that, where a really permanent Fence is required, it is the cheapest that can be obtained. It has obtained the Silver Medal of the Royal Agricultural Society of England, the first Prize of the Highland Society of Scotland, besides numerous Premiums from Provincial Agricultural Societies. It is manufactured *exclusively* by HILL AND SMITH, and intending purchasers should obtain it direct from H. & S., or through their recognised Agents, as several inferior imitations of the Fence are in the market, none of which contain the patented improvements adopted by H. & S. on which the strength and efficiency of the Fence entirely depend. It is manufactured from best Staffordshire Iron, by machinery specially prepared for the purpose, and as a large quantity of each kind is kept in stock, H. & S. ARE ENABLED TO EXECUTE ORDERS OF ANY EXTENT WITHOUT DELAY.

H. & S. have much pleasure in calling attention to the "New Tubular Fences and Hurdles" which will be found fully described on page 12, and for which they feel sure there will be a great demand as these fences possess great strength and durability and are offered at extraordinarily low prices.

In Strained Wire Fences, H. & S. would direct special attention to the improvements they have effected in the mode of straining the wires by means of their new patterns of Winding Pillars, which enables this description of Fence to be erected by unskilled labour with the greatest ease, and by the adoption of the Patent Galvanized Rope Wire; and they trust these improvements, coupled with the low prices at which these Fences are offered, will secure them the orders of those who prefer the Strained Wire system of Fencing.

N.B.—The whole of the Prices in this Book are subject to future Alteration, as they fluctuate according to the Price of Iron.

TERMS—NET CASH ON DELIVERY.

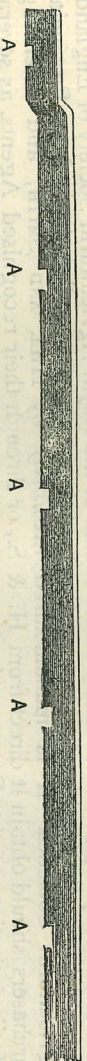
May, 1878.

A DESCRIPTION OF HILL AND SMITH'S

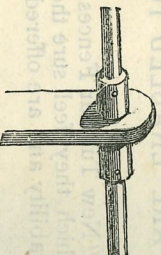
PATENT CONTINUOUS FENCING.

This Fence is now so generally known and approved that a detailed description of it is scarcely necessary. It is manufactured with the top bar of round iron and the lower bars of flat iron, placed edge upwards, which gives great strength, and prevents any bending or deflection of the bars. The top bar is connected by means of our ferrule-joint (see below), and the flat bars by means of our patent over-lap notched joint (see below). This method of joining gives the continuous character to the Fence, an unbroken line being maintained over every variety of ground. The standards are made with double-pronged feet, as shown in the engraving on next page, and are generally placed three feet apart, the horizontal bars being joined in every fifth standard. The standards are held immovably in a vertical position, and the withdrawal or displacement of the horizontal bars rendered impossible by means of the patent notch and wedge mode of fastening, making at once the most simple and perfect Fence ever constructed. It is independent altogether of wood or stone blocks, and can be fixed in curved lines or angles without requiring side-stays or any extras whatever, and it may be erected by any intelligent labourer. One great advantage of this Fence is, that it presents a sufficient eye-line for the safety of stock, at the same time that it gives an elegant and park-like appearance to land, with the convenience of divided pasturage. It can likewise be taken up and refixed with facility, and without injury, and from its being packed in bundles for the convenience of carriage, it is conveyed by all railway and canal companies at a very low rate and without risk of damage. It is, in consequence, admirably suited for exportation.

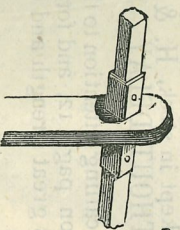
Enlarged view of the flat Horizontal Bars of the Patent Continuous Fences, showing the notches, marked A, which fit on to the standards.



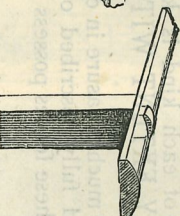
Plan of Round Socket or Ferrule Joint for the top bar of the Patent Continuous Fence, when a round bar is used.



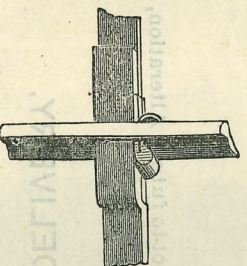
Plan of Square Socket or Ferrule Joint for the top bar of the Patent Continuous Fence, when a square bar is used.



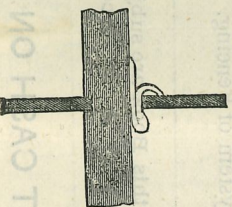
Plan of the Outer Top Bar, as applied to the Continuous Fence.



Plan of the Overlap Joint, for connecting the flat horizontal bars of the Patent Continuous Fence, showing the notch in the bar, with the upper portion of the split turned up to prevent its withdrawal.



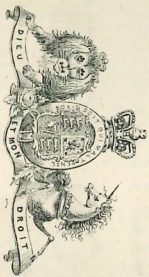
Plan of the Patent Method of fastening the standards to the horizontal bars, showing, patent notch and wedge over, with, standard, and, down the middle of the flat side through the hole prepared for the horizontal bars.



Full size of Patent Split Wedge, showing the upper part of split turned up as it would be when driven into the standard.



Important Testimonial from Balmoral.



Highland Park,
Aberdeenshire.

14 Nov^r 1877

Mrs^{rs} Hill Smith
Barnley Hall
Huddersfield

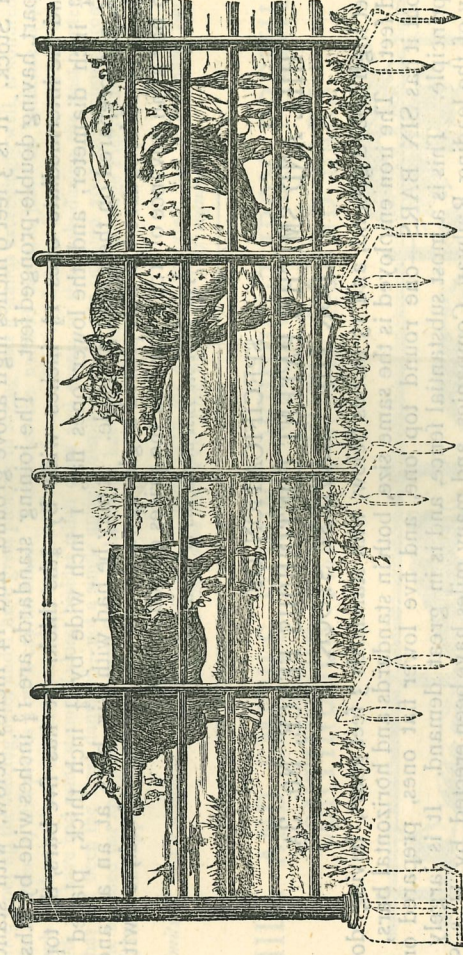
Gentlemen
I have much
pleasure in stating, that the
patent continuous down-facing
supplied by you, 1st year ago -
for the Huddersfield General Bal-
-lance, has given every satis-
-faction, both as to style and work-
-manship -

Andrew Robertson & Co

2

HILL AND SMITH'S PREMIUM CONTINUOUS WROUGHT-IRON FLAT-BAR FENCES, WITH PATENT NOTCHED BAR,

AT REDUCED PRICES.



SPECIFICATION OF

HILL AND SMITH'S PATENT CONTINUOUS FENCE. No. 1,

FOR SHEEP OR LIGHT CATTLE,

Is 3 feet 4 inches high above the ground and 13 inches below, with standards 3 feet apart, having double-pronged feet, as shown in engraving. The joint standard is $1\frac{1}{2} \times \frac{1}{4}$, and the intermediate others flat, 1 inch wide by $\frac{1}{4}$ inch thick, placed edge upwards, and prepared on the patent principle. A self-fixing terminal pillar is shown in the engraving, of cast-iron. It is not imperative this should be used, but it is recommended as a good finish at the end of each line of fence. This fence may be had with 9-16ths square top bar, placed angle upwards, at an advance of 2d., with an oval top bar at an advance of 1d., or with six bars at an advance of 3d. a yard on the prices quoted in List.

For Price see List at the end of Catalogue.

SPECIFICATION OF

HILL AND SMITH'S PATENT CONTINUOUS FENCE. No. 2,

FOR CATTLE,

Is quite strong enough for ordinary pasture land, and for enclosing plantations. It is 3 feet 6 inches above ground, and 13 inches below, with standards 3 feet apart, having double-pronged feet, as shown in the engraving. It has five bars; the top one round iron, 5-8ths of an inch diameter, and the other four flat, 1 inch wide by $\frac{1}{4}$ inch thick, as in No. 1. The joint standards are $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ ths of an inch thick, and the intermediate ones $1\frac{3}{8}$ ths of an inch wide by 5-16ths of an inch thick. It may be had with six bars at an advance of 3d., with a 9-16ths square top bar, placed angle upwards, at an advance of 2d., or with an oval top bar at an advance of 1d. a yard on the prices quoted in List.

For Price see List at the end of Catalogue.

SPECIFICATION OF HILL AND SMITH'S PATENT CONTINUOUS FENCE, No. 3, FOR OXEN AND GENERAL USE,

Is much stronger than the preceding Fences, and is adapted for General purposes against all kinds of Stock. It is 3 feet 9 inches high above ground, and 14 inches below, with standards 3 feet apart, having double-pronged feet. The joining standards are $1\frac{1}{4}$ inches wide by $\frac{3}{4}$ inch thick, and the intermediate ones $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ inch thick. It has five bars, the top one round, $\frac{3}{4}$ inch diameter, and the lower ones flat, 1 inch wide by $\frac{1}{4}$ inch thick, placed edge upwards, and prepared on the patent principle. It may be had with six bars at an advance of 3d., with an 11-16ths square top bar, placed angle upwards, at an advance of 2d., or with an oval top bar at an advance of 1d. a yard on the prices quoted in List.

For Price see List at the end of Catalogue.

SPECIFICATION OF HILL AND SMITH'S PATENT CONTINUOUS FENCE, No. 3A, FOR THE HEAVIEST STOCK,

Is $4\frac{1}{2}$ feet high above ground, and 15 inches below, with standards 3 feet apart, having double-pronged feet. The iron employed is the same size, both in standards and horizontal bars, as in No. 3, but it has SIX BARS—one round top one, and five lower flat ones, prepared on the patent principle. This is a most substantial fence, and is in great demand. It is largely used by many of the leading Railway Companies, and many miles have been erected by H. & S. on the London and North Western Railway between Bletchley Station and London, the Company's Engineer having selected it in preference to any other. It may be had with a square or oval top bar at the same additional price as the preceding Fence.

For Price see List at the end of Catalogue.

TESTIMONIALS IN FAVOUR OF THE PATENTED IMPROVEMENT IN THE CONTINUOUS FENCES.

From the Right Hon. the EARL OF DARREY.

I have much pleasure in stating that the Continuous Iron Fencing with which you supplied me has given entire satisfaction, and I have found that the patent bar and joint tends to give great stability and firmness to the fence.

From the Right Hon. LORD COLCHESTER, Kidbrook Park.

On receiving your circular letter, requesting opinions on the merits of your Continuous Iron Fencing, I sent down to my bailiff, desiring him to report on that part put up at Kidbrook.

I have just received his answer, in which he says, "I think it well deserves recommending as a thorough good fence in every respect—with respect to the notched bars and joints, we think that a very effective method of securing firmly the bars and standards in their proper position."

You are at liberty to make any use of the above opinion which you may consider desirable.

From the Right Hon. LORD BELPER, Kingston Hall.

In reply to your letter I beg to inform you that I continue to be quite satisfied with your Continuous Iron Fencing, and that I have found the notched bar and joint a great improvement.

From W. B. WILSON, Esq., Agent to Sir MATTHEW WHITE RIDLEY, Bart., Blagdon, Cranlington, Northumberland.

I gladly bear testimony to the excellence of your Continuous Iron Fencing, which has given great satisfaction. The patent notched bar and joint I consider a great improvement, and must be apparent to every one. I shall want a considerable quantity this season, which I will order in a few days.

From EVELYN PHILIP SHIRLEY, Esq., Eddington Park, Stratford-on-Avon.

In answer to your circular, with reference to your Patent Continuous Fence, I am glad to be able to say that I think both the Deer and Ox Fencing has answered well.

From the Right Hon. LORD DARNLEY, Cobham Hall, Kent.

Lord Darnley is happy to be able to testify to the excellence of the Patent Continuous Flat Iron Fence, such as was put up by Messrs. Hill and Smith at Cobham Hall; he considers it to be incomparably the best fence that he has seen for deer and cattle.

From the Agent to LORD SOUTHAMPTON, Whitebury.

I have much pleasure in informing you that the Flat Bar Continuous Park Fence, which has been put up for Lord Southampton, answers very well indeed—the patent notched bar and joint has, I believe, been the means of keeping it firm and rigid, and prevented the bars from being bent and displaced, and is a great improvement on the old plan.

From the Agent to the Right Hon. the EARL OF DUDLEY.

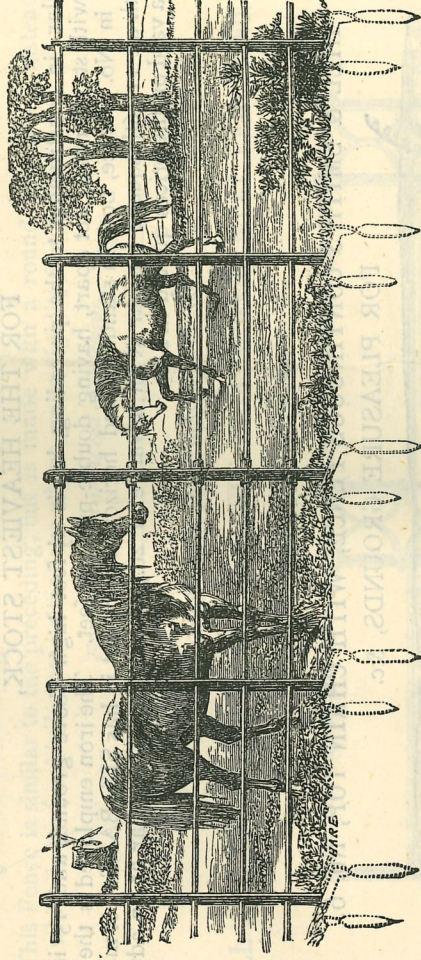
Having given your Continuous Flat Bar Deer Fence a trial at Witley Court, I am happy to say it gives every satisfaction. The patent notched bar and joint is a vast improvement on the old plan, a much lighter fence answering every purpose.

From GEORGE C. WILSON ATKINSON, Esq., Acton House, Felton, Northumberland.

I hasten to bear most willing testimony to the excellence of your Continuous Iron Fencing. It is now nearly a year since I put up the fencing here, and I have great pleasure in saying that it stands exceedingly well, is admired by every one who has seen it, and proves a most capital fence. I consider the notched bar and joint an immense improvement. Although I did not select your strongest kind, but your No. 2, I can safely say I have found it answers all the purposes required. I have had some strong Kyloes, besides milch cows and sheep, in the park during the past winter, and the fence has not been the least damaged—not a single upright displaced. In my opinion your Continuous Iron Fencing, with the notched bar and joint, is the best fence of the kind I have ever seen. The two large Field Gates you sent me are equally liked and approved of.

The limits of this Catalogue preclude the insertion of more than the above Testimonials, but a Pamphlet containing a large number would be sent Post Free by H. & S. if required.

HILL AND SMITH'S STRONG WROUGHT-IRON PREMIUM CONTINUOUS FENCES, WITH ROUND BARS.



SPECIFICATION OF

HILL AND SMITH'S CONTINUOUS WROUGHT-IRON FENCE, No. 1A.

This Fence is 3 feet 4 inches high above ground, and 12 inches below. The standards are placed 3 feet apart, all having double-pronged feet. The joining standards are $1\frac{1}{2}$ by $\frac{1}{4}$, and the intermediate standards $1\frac{1}{4}$ by $\frac{1}{4}$. The horizontal bars are round, and five in number; the upper one $\frac{5}{8}$ ths diameter, and the others $\frac{1}{2}$ inch diameter, all connected by means of HILL AND SMITH'S ferrule joint every 15 feet. It is made also with six bars when ordered, at an advance of $2\frac{1}{2}$ d., with a 9-16 square top bar, placed angle upwards, at an advance of 2d., or with an oval top bar at an advance of 1d. per yard on the prices in the List.

For Price see List at the end of Catalogue.

SPECIFICATION OF

HILL AND SMITH'S CONTINUOUS WROUGHT-IRON FENCE, No. 2A, FOR LIGHT CATTLE.

This Fence is $3\frac{1}{2}$ feet high above ground, and 13 inches below, with standards 3 feet apart, all having double-pronged feet. The joining standards are $1\frac{1}{2}$ by $\frac{3}{8}$ ths, and the intermediate ones, $1\frac{3}{8}$ ths, by $\frac{5}{16}$ ths. The horizontal bars are round, and five in number; the upper one $\frac{5}{8}$ ths diameter, and the others $\frac{1}{2}$ inch diameter, all connected by means of HILL AND SMITH'S ferrule joint every 15 feet. It is made also with six bars when ordered, at an advance of $2\frac{1}{2}$ d., with a 9-16 square top bar, placed angle upwards, at an advance of 2d., or with an oval top bar at an advance of 1d. per yard on the prices in the List.

For Price see List at the end of Catalogue.

SPECIFICATION OF
HILL & SMITH'S PREMIUM CONTINUOUS FENCE, No. 4,
FOR OXEN.

Is similar in construction to No. 2a, but is higher and stronger. It is 3 feet 9 inches above ground, and 14 inches below, each standard being 4 feet apart, and having double-pronged feet. The joining standards are $1\frac{3}{4}$ inches wide by $\frac{3}{8}$ ths thick, and the intermediate ones $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ ths thick. It has five bars, all of round iron, the top one $\frac{3}{4}$ inch diameter, and the lower ones $\frac{5}{8}$ inch diameter, connected with the ferrule joint. It may be had with six bars at an advance of 4d, with an 11-16th square top bar, placed angle upwards, at an advance of 2d, or with an oval top bar at an advance of 1d. per yard on the prices quoted in List.

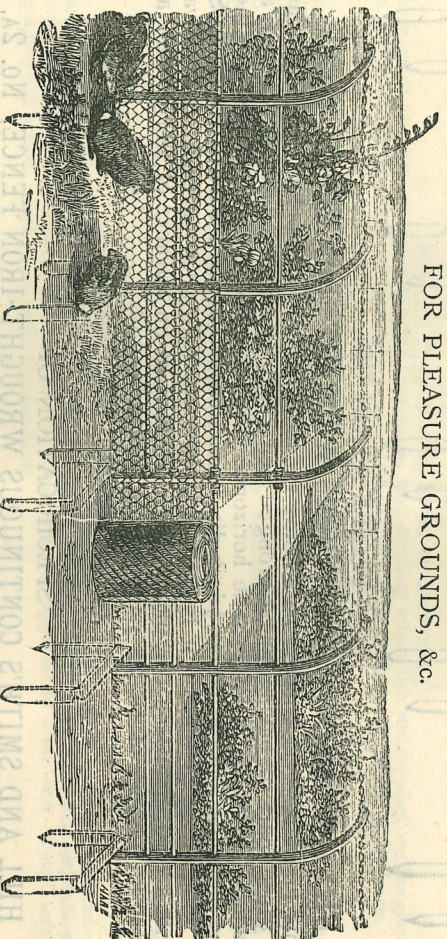
For Price see List at the end of Catalogue.

SPECIFICATION OF
HILL & SMITH'S PREMIUM CONTINUOUS FENCE, No. 4A,
FOR THE HEAVIEST STOCK,

Is similar in construction to the preceding, but is $4\frac{1}{2}$ feet high above ground, and 15 inches below, with standards 4 feet apart, having double-pronged feet. The iron employed is the same size as in No. 4 fence, both in standards and horizontal bars, but it has SIX BARS. It may be had with an 11-16th square top bar at an advance of 2d, or with an oval top bar at an advance of 1d. a yard on the prices quoted in List.

For Price see List at the end of Catalogue.

SPECIFICATION OF
HILL & SMITH'S CONTINUOUS FENCE, WITH CHAIN TOP, No. 6,
FOR PLEASURE GROUNDS, &c.

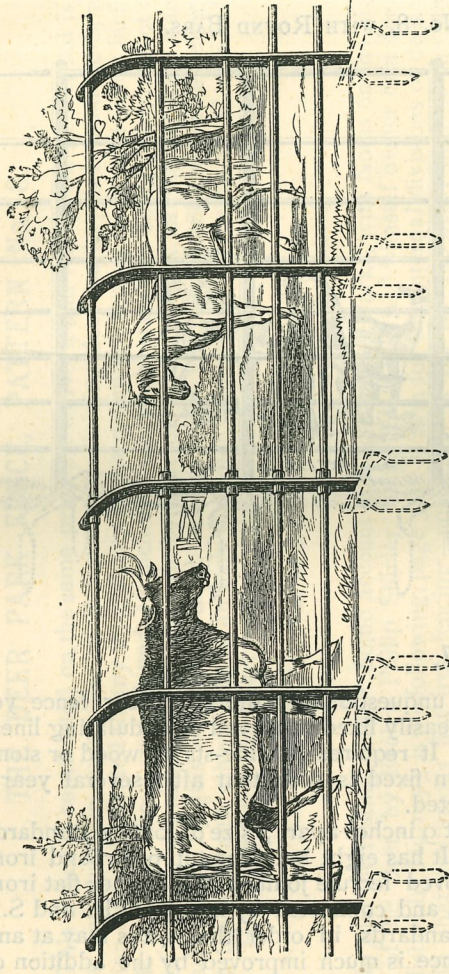


This Fence is constructed on the same principle as No. 4, but has an ornamental twisted Chain instead of bar at top, and is curved outwards, so as to overhang from the lower part of the fence. It is well adapted for fencing shrubberies from a park, or pasture lands, gardens, &c., as it may be placed close to the shrubs or flowers, the overhanging top of the fence preventing horses or cows from approaching sufficiently near to eat or damage them, and the appearance of the fence is highly ornamental. The size and strength of the fence is the same as No. 4.

If the chain is preferred to be fixed "drooping" or in festoons, from standard to standard, the additional length required on this account is 6d. per yard extra.

For Price see List at the end of Catalogue.

NO. 6 CONTINUOUS FENCE, WITH ROUND TOP BAR, INSTEAD OF CHAIN.

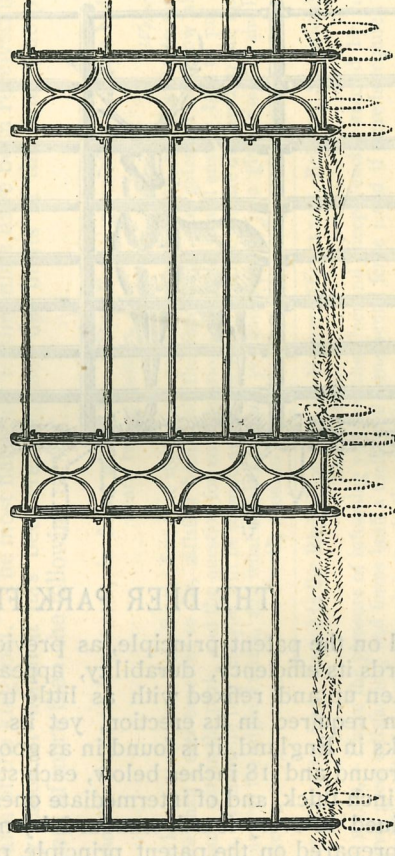


This Fence is similar to the preceding, but is made with a round bar at top instead of a chain, which is preferable in some situations where great rigidity is required.

For Price see List at the end of Catalogue.

SPECIFICATION OF

HILL AND SMITH'S STRONG WROUGHT-IRON ORNAMENTAL FENCE, NO. 6A, FOR PLEASURE-GROUNDS, &c.



This Fence, of which the above is an engraving, is composed of ordinary hurdle fencing in 4 feet lengths, made with feet as represented, between each of which is placed an ornamental piece of wrought-iron work, prepared to bolt to the hurdles. It makes a good fence, is easily fixed, and is suitable for dividing pleasure-grounds from a park, or for any situation where an ornamental fence is required. It is 4 feet high, has five bars all $\frac{5}{8}$ ths diameter, and the ornamental panels are $10\frac{1}{2}$ inches wide.

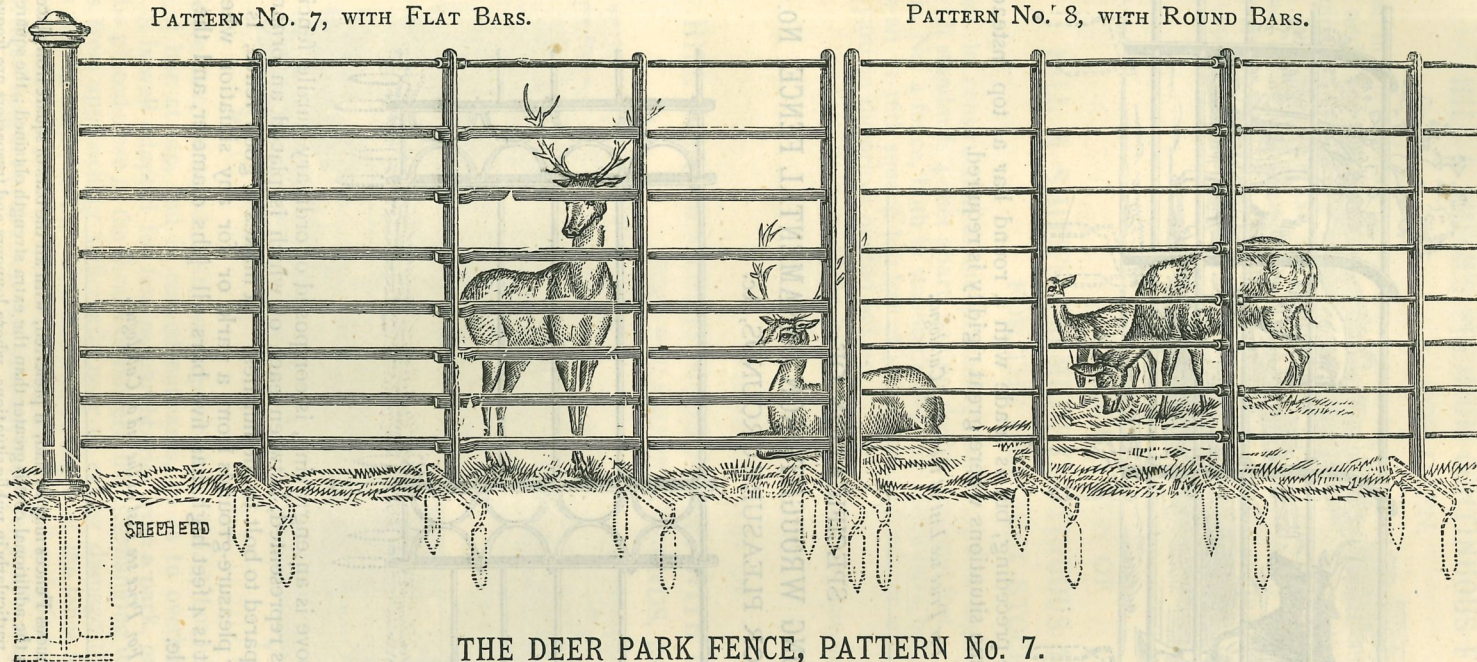
For Price see List at the end of Catalogue.

NOTE.—Any of the preceding Continuous Fences may be had, if preferred, with all the bars of square iron placed angle upwards, but we do not recommend it, as the additional cost is greater than the extra strength obtained; the square top bar only, is however, useful in some instances, particularly in public situations, where loungers and trespassers are frequent, and the prices of any of the pattern fences, with this addition, will be found in the preceding estimates.

HILL AND SMITH'S PATENT WROUGHT-IRON PREMIUM CONTINUOUS FENCES. FOR DEER PARKS.

PATTERN No. 7, WITH FLAT BARS.

PATTERN No. 8, WITH ROUND BARS.



THE DEER PARK FENCE, PATTERN No. 7.

This fence is constructed on the patent principle, as previously described, and it is unquestionably the best deer fence yet introduced, whether as regards its efficiency, durability, appearance, or economy. It is easily fixed in curved or undulating lines, and may at any time be taken up and refixed with as little trouble almost as hurdles. It requires no side-stays, wood or stone blocks, nor is any excavation required in its erection, yet its firmness and rigidity when fixed is such, that after several years' experience, in many deer parks in England, it is found in as good a state as when first erected.

It is 6 feet high above ground and 18 inches below, each standard being placed 3 feet 9 inches apart; size of joining standards $1\frac{3}{4}$ inches wide by $\frac{3}{8}$ ths of an inch thick, and of intermediate ones, $1\frac{1}{2}$ by $\frac{3}{8}$ ths of an inch. It has eight bars, the top one round iron, $\frac{3}{4}$ ths of an inch diameter, joined in every fourth standard by means of H. and S.'s improved ferrule joint, and the other flat iron, 1 inch wide by $\frac{1}{4}$ inch thick, prepared on the patent principle, placed with edge upwards, and connected by means of H. and S.'s overlap joint, as before described. A small hole is made in the lower spaces of all the standards, in order that wires may at any time be added to prevent fawns creeping through, should it be found necessary. The fence is much improved by the addition of one horizontal bar, and as we frequently make it so we give in our List a price for it with nine bars.

For Price see List at the end of Catalogue.

SPECIFICATION OF THE DEER PARK FENCE, PATTERN NO. 8.

This Fence is constructed on the same principle as No. 4 and No. 4^A Ox Fence, but is made higher and stronger, suited for enclosing or sub-dividing deer parks; it is continuous, and, in erection, may be adapted to any irregularity in the ground or line of fence with great facility.

It is 6 feet above ground and 18 inches below, each standard being placed 4 feet apart; size of joining standards, $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ ths of an inch thick, of intermediate standards $1\frac{1}{2}$ inches wide by $\frac{3}{8}$ ths of an inch thick. It has eight horizontal bars, the whole being round iron; top $\frac{3}{4}$ ths and others $\frac{5}{8}$ ths of an inch diameter, connected by means of H. & S.'s ferrule joint. Holes are left in the lower spaces of this fence for wires as in No. 7.

For Price see List at the end of Catalogue.

In that interesting book, "Some account of English Deer Parks, with Notes on the Management of the Deer, by Evelyn Philip Shirley, Esq., M.A., F.S.A.," himself owner of a deer park (published by Murray), is the following, page 329:—"As for the internal divisions of deer parks, I hold that continuous flat iron fencing—not wire—is by far the best; and of the different manufacturers I would give the preference to Messrs. Hill and Smith, of Brierley Hill, near Dudley, Staffordshire, whose invention of a patent notched bar and joint is a great improvement, and tends to keep the uprights and bars in their proper position."

The splendid deer park at Welbeck Abbey, the seat of His Grace the Duke of Portland, has been entirely surrounded by H. & S. with the No. 7 Deer Fence, nearly ten miles in extent, containing upwards of sixty Entrance Gates in iron, of No. 43 pattern; it has also been extensively used by His Grace the Duke of Bedford, at Woburn Abbey, Beds.; the Right Honourable the Earl of Derby, Knowsley Park, Lancashire; by the Right Honourable the Earl of Dudley, at Witley Court, Worcestershire; by The Right Honourable R. C. Nisbet Hamilton, at Beil, Prestonskirk, East Lothian; and by Evelyn P. Shirley, Esq., at Lough Fea, Carrickmacross, Ireland; and at Ettington Park, Stratford-on-Avon; besides at numerous other deer parks in different parts of the kingdom. The most flattering testimonials have been received in its favour from every place at which it has been erected; but the limits of this catalogue preclude the insertion here of more than the following:

From His Grace the DUKE OF PORTLAND, in favour of the No. 7 Deer Fence, given after the fence had been erected nearly twelve months.

Welbeck Abbey.

I have lately come down here for the first time since your park fence was put up, and I write to assure you that I am; even more than I ever expected to be, satisfied both with the fence and the gates. I am now about to make further inclosures within the park, and the question for consideration is whether it will answer best to put up a wooden fence or yours. I therefore beg that you will be so good as to inform me whether you are disposed to put up an additional quantity of fence on the original terms, and what number of yards you could put up in a given time? I shall be obliged to you to send me an early answer, as I am shortly about to leave the country.

From ROBERT HIGGINS, Esq., Factor to the Right Hon. R. C. NISBET HAMILTON, Beil and Archerfield, Prestonskirk, East Lothian.

GENTLEMEN,—I have the pleasure of informing you that the Deer and Sheep Fencing erected by you at Beil and Archerfield gives great satisfaction, and forms both a useful and ornamental fence; and if more is required it is the Right Hon. C. Nisbet Hamilton's intention to give you further orders.

From the Right Hon. LORD HAMPTON, Westwood Park.

DEAR SIRS,—In reply to your request that I would send you my opinion of the Continuous Iron Deer Fence of which you have put up a large extent in my park, at this place, I have great pleasure in stating that I continue to approve of it most highly. It is as strong as any iron fence of that height can be, is very neat in appearance and it is much admired and liked by all the friends who visit me here.

MESSRS. HILL AND SMITH.

Ettington Park, Stratford-on-Avon, May 20th, 1876.

GENTLEMEN,—I will thank you to send to me, to the above address, 100 yards of your Deer Park Fence, No. 7, with flat bars, and 50 yards of your Continuous Ox Fencing, the same kinds which I have so often had, and which continue to give me the utmost satisfaction.

I request also that you would send me a cask of Black Varnish and one of your Iron Heating Barrows.

Yours, E. P. SHIRLEY.

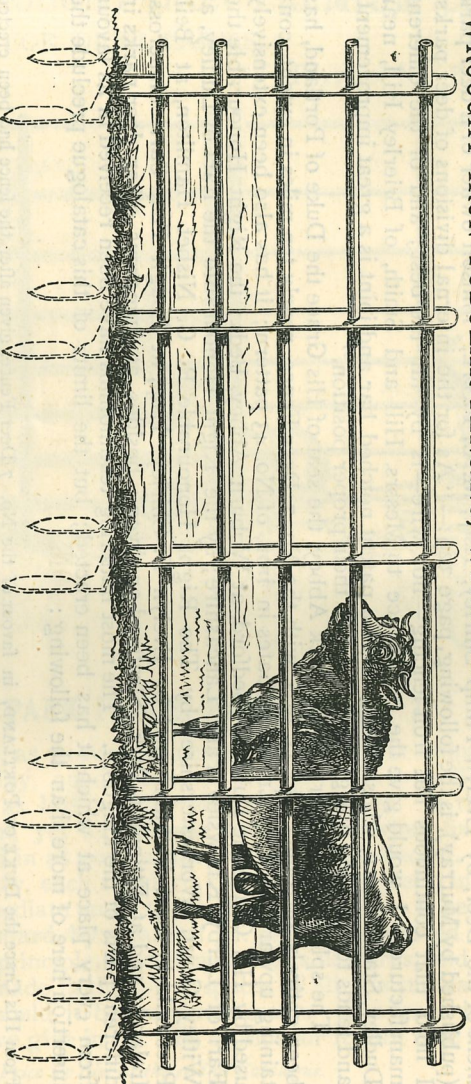
For Gates to suit any of the preceding Fences see under the heading "GATES" further on in the Catalogue.

NEW TUBULAR FENCING AND HURDLES.

HULL and SMITH have much pleasure in introducing this new kind of fencing to the notice of Landed Proprietors. For some time past their attention has been directed to the desirability of using wrought iron tubes in place of solid bars for "Round Bar Continuous Fencing" and they have at last succeeded in rolling a "butt jointed" tube in all respects as serviceable for fencing purposes as a welded one, at almost as cheap a rate as ordinary bar iron. They can claim for this kind of fencing that it possesses substantial advantages over solid round bar fencing in the two essentials of strength and cheapness, arising from the well known fact, that a tube of a given diameter is really stronger than a solid bar of equal size, whilst it is barely one third its weight. Upon the following pages are given full specification of both continuous fences and hurdles made on this system, and a trial order is respectfully solicited.

H. & S. also wish to state that these tubes are applicable for the top bars of their "Patent Flat Bar Fencing" at the same cost as solid bars.

WROUGHT-IRON TUBULAR FENCING, WITH GIRDER PATTERN STANDARDS.



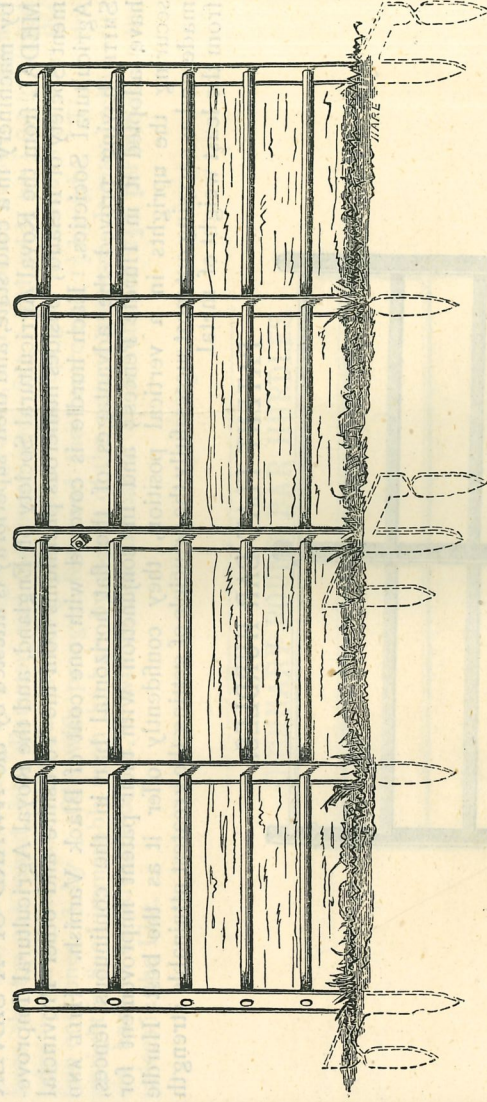
This Fencing, the principle of which is fully described above, is composed of tubular rails, and solid Standards, of the girder iron section, which is stronger than ordinary flat bar iron of a corresponding size; it will thus be seen that all the materials used combine the maximum of strength with the minimum of weight, and consequent extreme cheapness of production.

It is made in a variety of strengths and sizes, suitable for various requirements as below.

SPECIFICATIONS AND PRICES.

	At Works. s. d.	In London. s. d.	In Glasgow or Dublin. s. d.
No. 1B.— $3\frac{1}{2}$ feet high, with 5 tubular horizontal Rails, all $\frac{3}{4}$ inch diameter, Standards of girder iron $1\frac{1}{2}$ inches wide, with double-pronged feet and placed 3 feet apart...	1 8	1 10 $\frac{1}{2}$	1 11
FOR SHEEP AND LIGHT CATTLE.			
No. 3B.—3 feet 9 inches high, with 5 tubular horizontal Rails, top one 1 inch diameter, lower ones $\frac{3}{4}$ inch diameter, Standards girder iron $1\frac{1}{2}$ inch wide, with double-pronged feet placed 3 feet apart ..	2 1 $\frac{1}{2}$	2 4	2 5
FOR CATTLE AND HORSES.			
EXTRA STRONG FOR CATTLE AND HORSES.			
No. 3C.—3 feet 9 inches high, with 5 tubular horizontal Rails, all 1 inch diameter, Standards same size as preceding, but placed 4 feet apart ..	2 2	2 5	2 6
FOR THE HEAVIEST STOCK.			
No. 3D.—4 $\frac{1}{2}$ feet high, with 6 tubular horizontal Rails, top one 1 inch diameter, lower ones $\frac{3}{4}$ inch diameter, Standards girder iron $1\frac{1}{2}$ inches wide, with double-pronged feet placed 3 feet apart ..	2 5	2 8	2 9
No. 3E.—4 $\frac{1}{2}$ feet high, with 6 tubular horizontal Rails, all 1 inch diameter, Standards same as preceding, but placed 4 feet apart ..	2 6	2 9	2 10

WROUGHT-IRON TUBULAR HURDLES, WITH GIRDER IRON UPRIGHTS.

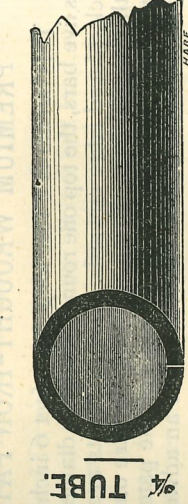
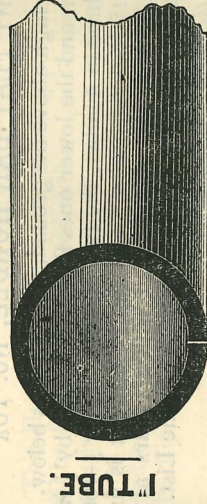


These Hurdles are constructed from the same materials as the Tubular Fences on preceding page, and possess the same advantages as regards strength and cheapness, whilst the lightness is of even greater importance in this description of fencing than it is with the "continuous," hurdles generally being subject to more frequent removal.

SPECIFICATIONS AND PRICES.

	At Works. s. d.	In London. s. d.	In Glasgow or Dublin. s. d.
Pattern No. 10B, for Cattle and Horses, is 6 feet long by 3½ feet high out of ground, with 5 tubular horizontal Rails, all ¾ inch diameter, and 3 uprights, made of girder iron 1½ inch wide	3 10	4 3	4 4
Pattern No. 11B, extra strong, for heavy Bullocks and Horses, is 6 feet long by 4 feet high out of ground, with 5 tubular horizontal Rails, all 1 inch diameter, and 3 uprights of girder iron 1¾ inch wide	6 3	6 9	6 10
Pattern No. 11C, extra strong, for heaviest Stock, is 6 feet long by 4½ feet high, with 6 tubular horizontal Rails, all 1 inch diameter, and 3 uprights of girder iron 1¾ inch wide	6 6	7 0	7 2

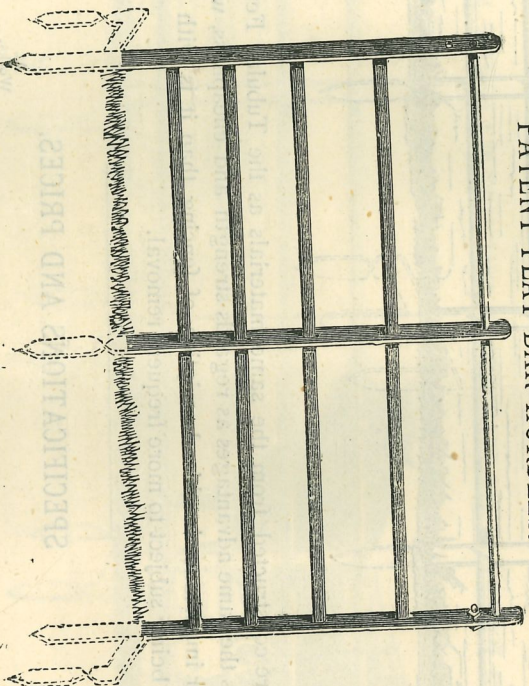
FULL SIZED SECTION OF TUBES USED IN THE FOREGOING FENCES AND HURDLES.



WROUGHT-IRON HURDLES WITH SOLID BARS.

In this department HILL AND SMITH manufacture an extensive variety, full details of which will be found in the following pages. They are made entirely from the best Staffordshire iron, by machinery in a cold state, and their superiority is attested by the AWARD OF A SILVER MEDAL from the Royal Agricultural Society of England, and the Royal Agricultural Improvement Society of Ireland; besides numerous premiums from the Yorkshire and other Provincial Agricultural Societies. Each hurdle is covered with one coat of Black Varnish. HILL AND SMITH having proved the advantages of the flat horizontal bar in the continuous fences, have adopted it in Hurdle Fences; and in conjunction with their patent improvement for securing the uprights in a vertical position, they confidently offer it as the best Hurdle made, and as carrying out most successfully the principle of getting the greatest attainable strength from the least weight of metal.

PATENT FLAT BAR HURDLES.



SPECIFICATION OF

PREMIUM WROUGHT-IRON PATENT FLAT BAR LIGHT CATTLE HURDLE, No. 9A.

This hurdle is 6 feet long, by 3 feet 4 inches high above the ground, and 1 foot below. It has five bars, the top one round iron, $\frac{5}{8}$ ths diameter, and the four lower ones flat, 1 inch wide by $\frac{1}{4}$ inch thick, placed edge upwards. The uprights are three in number, the two end ones having pronged feet as shown in the engraving. The centre upright is fixed immovably upon the bars by means of the patent process. It may be had with six bars at an advance of 6d., or with an oval top at an advance of 2d. per hurdle on the prices in the List.

For Price see List at the end of Catalogue.

SPECIFICATION OF

PREMIUM WROUGHT-IRON PATENT FLAT BAR HURDLE, No. 10A

This hurdle is 6 feet long, by 3 feet 6 inches high above the ground, and $1\frac{1}{3}$ inches below. It has five bars, the top one round iron, $\frac{5}{8}$ ths diameter, and the lower ones flat, 1 inch wide by $\frac{1}{4}$ inch thick, placed edge upwards. The uprights are three in number, the two end ones $1\frac{1}{4}$ by 5-16ths, with pronged feet, as shown, and the centre one $1\frac{3}{8}$ ths by 5-16ths. The centre upright is fixed immovably upon the bars by means of the patent process. It may be had with six bars at an advance of 6d., or with an oval top at an advance of 2d. per hurdle on the prices in the List.

For Price see List at the end of Catalogue.

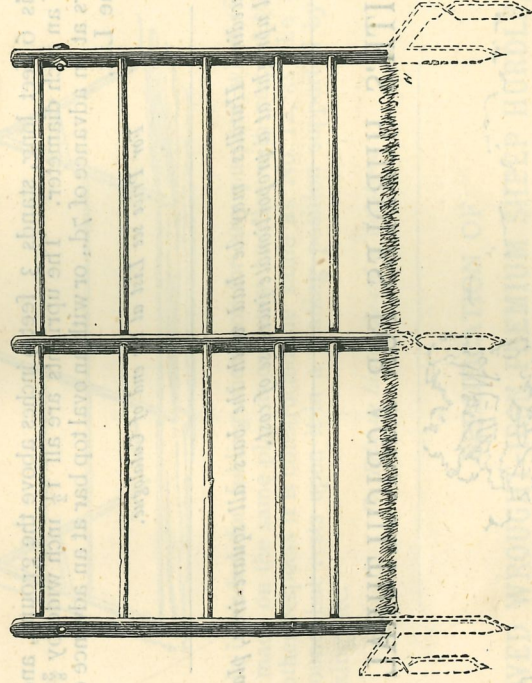
SPECIFICATION OF

PREMIUM WROUGHT-IRON PATENT OX HURDLE, No. 11A.

This Hurdle is 6 feet long by 4 feet high above ground, and 13 inches below. It has five bars, the top one round, $\frac{3}{4}$ ths diameter, and the lower ones flat, 1 inch wide by $\frac{1}{4}$ thick, placed edge upwards, the bottom bar but one being $\frac{3}{8}$ ths thick. The uprights are three in number, the two end ones $1\frac{1}{2}$ by 5-16ths, with pronged feet, and the centre one $1\frac{1}{2}$ by $\frac{3}{8}$ ths. The centre upright is fixed immovably upon the bars by means of the patent process. It may be had with six bars at an advance of 6d., or with an oval top bar at an advance of $2\frac{1}{2}$ d. per hurdle on the prices in the List.

For Price see List at the end of Catalogue.

ORDINARY ROUND BAR HURDLES.



SPECIFICATION OF

PREMIUM SHEEP HURDLE, No. 8A.

This is an ordinary round bar Sheep Hurdle, and is the lightest kind kept in stock. It is 6 feet long, stands 3 feet high above ground, and barely 12 inches below, has five bars, all $\frac{1}{2}$ inch diameter, and 3 uprights $1\frac{1}{4}$ by $\frac{1}{4}$, the two end ones with feet as shown in engraving.

For Price see List at the end of Catalogue.

SPECIFICATION OF

PREMIUM LIGHT CATTLE HURDLE, No. 9.

This Hurdle is intended for dividing pasture land for sheep or light cattle, for which purpose it will be found well adapted, either for temporary or permanent use. It is 6 feet long, stands 3 feet 4 inches above the ground, and 12 inches below, and has five bars, all round iron, the top one $\frac{3}{8}$ ths of an inch diameter, and lower one $\frac{1}{2}$ inch diameter. The uprights are $1\frac{1}{4}$ by $\frac{1}{4}$ inch, the end ones, with feet as represented above. It may be had with six bars at an advance of 5d. per hurdle, or with an oval top at an advance of 2d. per hurdle on the prices in the List.

For Price see List at the end of Catalogue.

SPECIFICATION OF
PREMIUM CATTLE HURDLE, No. 10.

This Hurdle is similar to No. 9, but stronger; it is 6 feet long, stands $3\frac{1}{2}$ feet above the ground, and 13 inches below, has five bars, all round iron, the top one $\frac{5}{8}$ ths inch diameter, and the lower ones $\frac{1}{2}$ inch diameter, the uprights $1\frac{3}{8}$ of an inch by 5-16ths of an inch. It may be had with six bars, at an advance of 5d., or with an oval top at an advance of 2d. per hurdle on the prices in the List.

For Price see List at the end of Catalogue.

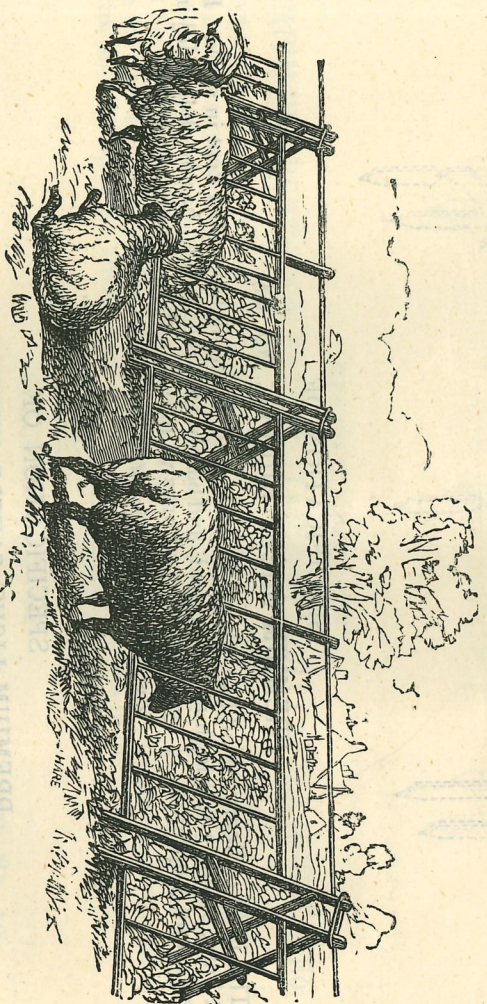
SPECIFICATION OF
PREMIUM OX HURDLE, No. 11.

This Hurdle is 6 feet long, stands 3 feet 9 inches above the ground, and has five bars all round iron, $\frac{5}{8}$ ths of an inch diameter. The uprights are all $1\frac{1}{2}$ inch wide by $\frac{3}{8}$ ths thick. It may be had with six bars at an advance of 7d., or with an oval top bar at an advance of $2\frac{1}{2}$ d. per hurdle on the Prices on the List.

For Price see List at the end of Catalogue.

Any of the preceding Hurdles may be had with the bars all square iron, placed angle upwards or with an additional upright at a proportionate increase of cost.

HILL & SMITH'S HURDLES FOR AGRICULTURAL PURPOSES.



SPECIFICATION OF

WROUGHT-IRON PREMIUM SHEEP-FOLDING HURDLE, No. 12.

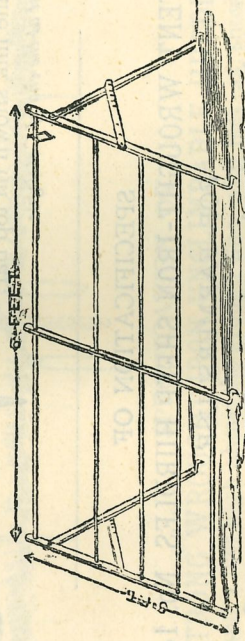
These Hurdles are intended for sheep to eat off, on the ground, turnips or any other description of green crop. In use they are placed against the crop with the sheep on side only, and are not fixed in the ground, but are placed in a leaning position, resting upon iron stays, as shown above. The sheep eat through these bars like eating through a rack, and are thus prevented from treading upon the crop. When fresh food is required the hurdles are simply drawn forward,

which, as they are not set in the ground, one boy can manage with ease and rapidity. They are connected by means of a link or chain, and each hurdle is 6 feet long by 3 feet when placed.

Premiums have been awarded to Hill and Smith for their introduction of this Hurdle by the Yorkshire Agricultural Society, the North Lancashire Agricultural Society, and the North Staffordshire Agricultural Society. At the Dublin Meeting of the Royal Agricultural Improvement Society of Ireland, their premium "for the best assortment of hurdles, or other movable fences for folding sheep on turnips, &c., &c.," was awarded to Hill and Smith for their Improved Sheep-Feeding Hurdles made of wrought-iron.

For Price see List at the end of Catalogue.

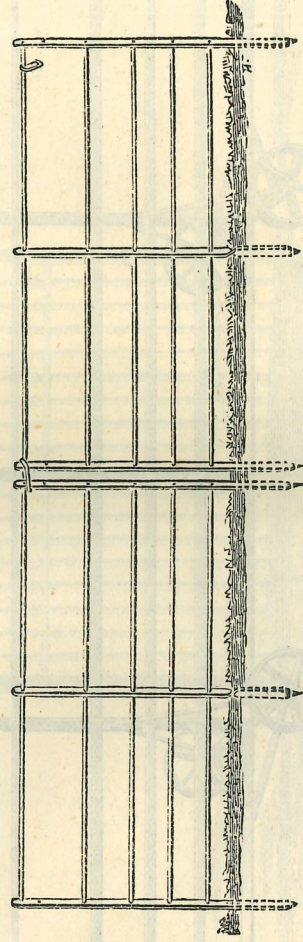
SPECIFICATION OF WROUGHT-IRON PREMIUM SHEEP-FOLDING HURDLE, No. 13.



This Hurdle is intended for folding sheep, or for any purpose where frequent removal is necessary. It is made on the same plan as ordinary hurdles with respect to the disposition of the bars; but in other respects it is constructed the same as No. 12, as like that it requires no setting in the ground, but rests upon it in a leaning position supported by stays, thus saving much labour in fixing, &c.

For Price see List at the end of Catalogue.

SPECIFICATION OF IMPROVED WROUGHT-IRON PREMIUM SHEEP HURDLE, No. 14, FOR FARMERS' USE.



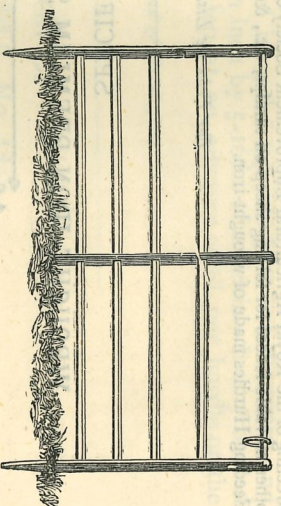
This Hurdle is 6 feet long, by 3 feet high, when fixed, and is made for folding sheep, and for farmers' purposes generally, for which it will be found better adapted than hurdles made with projecting feet as usual. They connect by a link attached to the top bar, which is preferable to a bolt and nut where hurdles are frequently moved. It is intended to be set 10 inches in the ground. Top and bottom bars $\frac{3}{8}$ inch, others $\frac{1}{2}$ inch diameter, uprights $1\frac{1}{8}$ inch wide by 5-16ths thick.

For Price see List at the end of Catalogue.

SPECIFICATION OF
PATENT WROUGHT-IRON PREMIUM SHEEP HURDLES, No. 14A.
FOR FARMERS' USE.

This Hurdle is same as No. 14, except that the four lower bars are of flat iron, placed with the edge upwards, and prepared on the patent notch and wedge principle. The end uprights are $1\frac{1}{4}$ inch by 5-16ths inch, the middle one $1\frac{3}{8}$ ths by 5-16ths inch, top bar round $\frac{3}{8}$ ths inch diameter, four lower ones flat, the bottom one 1 inch by $\frac{3}{8}$ ths inch, and the others 1 inch by $\frac{1}{4}$. It is 6 ft. long, and when set in the soil it stands 3 ft. high, and is connected by the link shown on top bar.

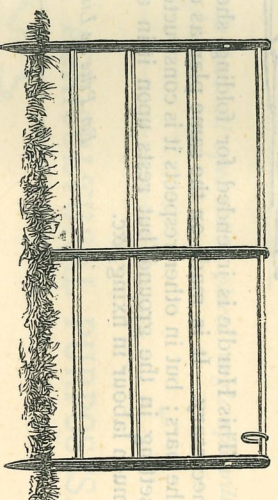
For Price see List at the end of Catalogue.



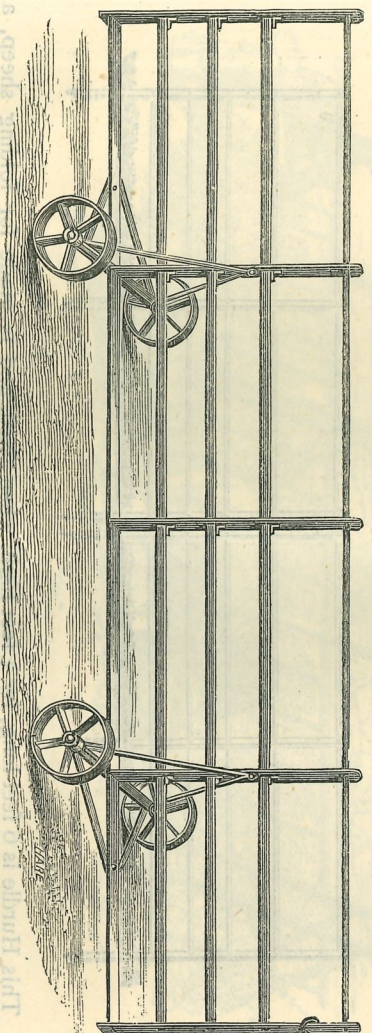
SPECIFICATION OF
PATENT WROUGHT-IRON SHEEP HURDLES, No. 14B.
FOR FARMERS' USE.

This Hurdle is similar to No. 14A, but has only four bars—the top one $\frac{5}{8}$ ths inch diameter, and the three lower ones flat, with edge upwards, prepared with patent notch. The bottom bar is 1 inch by $\frac{3}{8}$ ths, and the two inner ones 1 inch by $\frac{1}{4}$. It is 6 feet long, and when set in the soil it stands $2\frac{1}{2}$ feet high. The end uprights are made double thickness from 3 inches above the ground line to the bottom to stand the wear and tear of frequent setting.

For Price see List at the end of Catalogue.



PREMIUM WROUGHT-IRON SHEEP FOLDING HURDLE ON WHEELS.

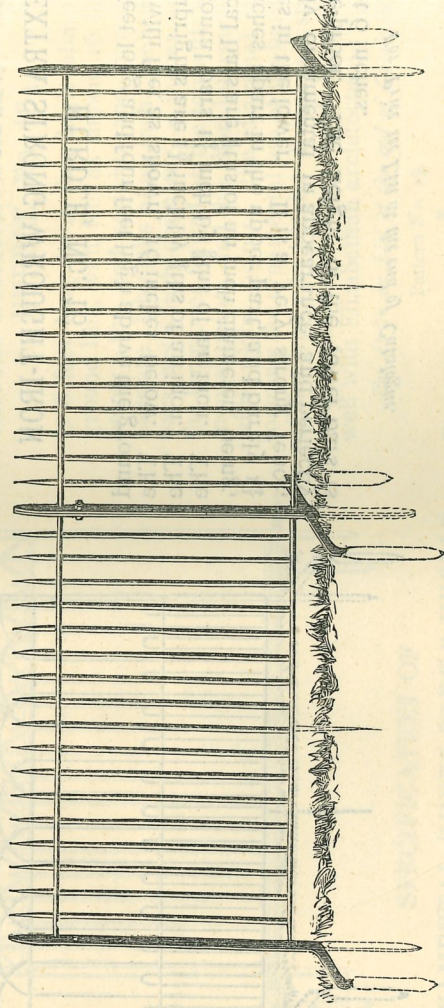


This Hurdle is 12 feet long by 3 feet 6 inches high, fixed upon four wheels as shown above. It is used as a movable hurdle in folding sheep, or for any purpose where a temporary fence is required, and has five bars, the top one round, $\frac{3}{8}$ ths inch diameter, and the lower ones flat, $1\frac{1}{8}$ inch wide by $\frac{1}{4}$ inch thick.

Price each at the Works.
£0 18s. 6d.

In London.
£1 2s. 6d.

WROUGHT-IRON ORNAMENTAL HURDLES.



SPECIFICATION OF

EXTRA STRONG WROUGHT-IRON UNCLIMBABLE HURDLE, No. 15.

Is 6 feet long and 4 feet high above the ground line, with feet as shown, 16 inches below. The end uprights are $1\frac{1}{2}$ inch by $\frac{3}{8}$ ths of an inch, the horizontal bars the same, and the vertical bar $\frac{1}{2}$ inch diameter, pointed at top, and riveted at bottom into horizontal bar, and placed $3\frac{1}{4}$ inches apart. It is a very strong fence, and being unclimbable is well suited for public situations, enclosing gardens, &c.

For Price see List at the end of Catalogue.

SPECIFICATION OF

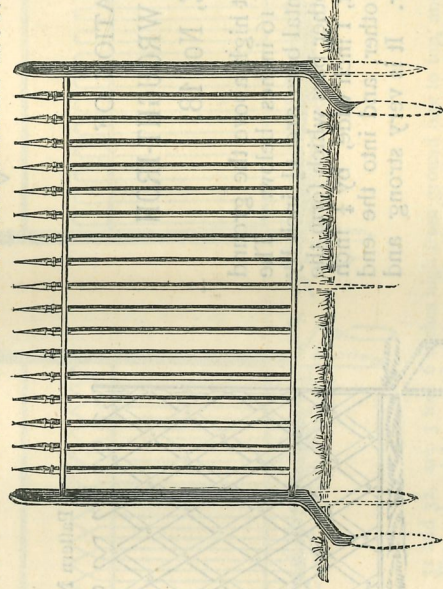
EXTRA STRONG WROUGHT-IRON UNCLIMBABLE HURDLE, No. 15A.

This Hurdle is exactly the same in pattern and size as No. 15, but is much stronger, the vertical bars being all $\frac{5}{8}$ ths of an inch diameter, placed $3\frac{3}{8}$ ths inches apart, pointed at top and riveted at bottom into horizontal bar. The horizontal bars and end uprights are the same size as No. 15.

For Price see List at the end of Catalogue.

SPECIFICATION OF

EXTRA STRONG WROUGHT-IRON UNCLIMBABLE HURDLE, No. 15B.



This hurdle differs from No. 15 pattern in the upright bars only, which are made of $\frac{1}{2}$ inch square iron instead of round, and so placed that the angle is towards you when standing in front of the fence. These bars are placed $3\frac{3}{8}$ inches apart in the clear.

For Price see List at the end of Catalogue.