

- (1) Number of pages _____
(2) Date of repair _____
(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	209	Press
B.P. No.		Mis.
Dated	25 - 1	6875 - 195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
25th January 1875.*

Read the following papers:—

No. 431. Endorsement of the Secretary to Government, Military Department, dated Fort St. George, 22nd December 1874.

From Brigadier-General A. HOWLETT, C.B., Quarter Master General, to Colonel A. C. SILVER, Secretary to Government, Military Department, dated Fort St. George, 21st December 1874, No. 8,690.

I HAVE the honor to report that the question of iron stabling for horses of the mounted branches was recently brought under the notice of His Excellency the Commander-in-Chief, and having ascertained that stabling of this description was in use by the Batteries of the Royal Artillery at Kirkee, information was sought for from the Quarter Master General, Bombay.

2. The papers now received from Bombay speak of the iron stabling in such highly favorable terms in contrast to the stabling of the standard plan, as affording perfect shelter from the heat, sun, and rain both for the horses and men, that His Excellency desires to submit the correspondence for the favorable consideration of Government in the Public Works Department, and recommends that further inquiries be made as to the expediency of giving the iron stabling a trial in this Presidency.

3. The budget list contains sanctioned estimates for stabling at the Mount, Bangalore, and Bellary, and should Government accede to the proposal and resolve to give it a trial, the experiment might be tried at the Mount for one Battery of Royal Artillery. That station being the nearest to the shipping port, the transport charges would be correspondingly less than to either of the other stations alluded to.

4. The following correspondence is enclosed:—

Letter forwarded by Officer Commanding Ceded Districts, No. 206, dated 13th October 1874.

Letter No. 1-145/5,899, dated 12th December 1874, from Quarter Master General, Bombay, with enclosures and plan.

From Major H. P. LANE, Commanding Royal Artillery, Ceded Districts, to the Assistant Quarter Master General, Ceded Districts, dated Bellary, 13th October 1874, No. 206.

HAVING heard that estimates have been called for for the stabling of the horses of the Battery of Royal Artillery at this station, and as it is most desirable that they should be erected as soon as possible, many Australian horses being of delicate constitutions, I have the honor to bring to the notice of the Brigadier Commanding the accompanying catalogue of Messrs. F. Morton & Co., which shows single and double span galvanized corrugated iron self-supporting sheds, which I consider quite sufficient to protect the horses from the extreme heat and heavy rain, and also cover for the men whilst grooming their horses, there being very few trees, and those that are in the horse lines are of stunted growth owing to the hardness of the soil.

2. I would point out that the advantages of these stables would be, 1st, much less expense of first purchase; 2ndly, the still greater benefit to the State in case of a change in the locality being necessary owing to epidemics, etc., of easy removal of the sheds to new ground; 3rdly, the only masonry required being a slight foundation.

3. The running sheds for the 110 horses of a Field Battery in three divisions, allowing 7 feet for each horse (37 horses, say, in each division) 259 feet or if the double shed drawing No. 23, page 4, of the catalogue is used 130 feet for each division, and this double shed would be

*Proceedings of the Madras Government, Public Works Department,
25th January 1875.*

preferable for supervision, etc. An extra single shed would be also necessary of about 50 feet long for the harness and saddlery, as the guard-room is used as a harness-room at great inconvenience.

4. The price of the sheds is given in the catalogue, page 4, £70 for 100 feet x 15 feet; I calculate the cost of the sheds would be about £560, to which the freight and carriage by rail to Bellary would have to be added, but, even then, the cost would be considerably less than permanent stables, and the advantages much greater. I beg this recommendation may be submitted to His Excellency the Commander-in-Chief should the Brigadier-General Commanding consider it worthy.

BELLARY,
15th October 1874.

SUBMITTED.

(Signed) A. W. MACINTIRE, Brigadier-General.
Commanding Ceded Districts.

From the Quarter Master General, Bombay, to Brigadier-General A. HOWLETT, C.B., Quarter Master General, Madras, dated Poona, 12th December 1874, No. 1-145/5,899.

In reply to your letter, No. 455, of 23rd October, I have the honor to forward copies of reports received from the Officer Commanding Royal Artillery, Kirkee, as to the suitability of iron stables, with letter from the Executive Engineer, Poona, giving the cost of the same.

2. A plan of the stables is enclosed.
3. A report by the Inspecting Veterinary Surgeon (who is at present on tour) on the iron stables will be forwarded when received.

4. The iron stables at Kirkee, in contrast with those on the standard plan at other stations, are highly spoken of by all officers of the Royal Artillery, and on this subject I beg to attach copy of letter from Major-General Forster, C.B., Royal Artillery, when in command of the Northern Division of this Army.

5. The relative cost of the two descriptions of stables would depend much on the locality in which they were to be erected.

From the Brigadier General Commanding Northern Division Army, to the Quarter Master General, dated 10th July 1869, No. 1,806.

I beg to take the liberty of addressing you on the subject of the brick and tiled stabling for the Royal Artillery at this station. His Excellency the Commander-in-Chief is acquainted with this subject from the reports I have more than once submitted. I take this opportunity of writing on this subject, especially because at my suggestion Colonel Smyth, Commanding Royal Artillery, Northern Division Army, has kindly furnished me with some valuable statistics which tend to show the unsuitableness of such stables for this climate.

2. Give here the temperature of the stables of A Battery, 18th Brigade (these are of the newest pattern) for one week, from which it will be seen that the mean temperature at 5 P. M. is more than 100.

Temperature of the Stables of A 18th Brigade, at Ahmedabad, for one Week.

Time.	6 A.M.	Noon.	5 P.M.	
24				These are the newest pattern.
25	85.7	97.7	103	
26	87	98	101	
27	87.3	98.8	103	
28	87.7	98.5	103	
29	83.6	99	103.5	
30	85	97	100	
Mean	85	98.2	101.9	

*Proceedings of the Madras Government, Public Works Department,
25th January 1875.*

3. I also enclose a rough sketch of the stables referred to, from which it will be seen how low the stables are and how the heat must strike through the tiles on to a man's head; also how the stables are filled up with brick pillars. I am of opinion therefore that, taking the great heat into consideration and the close temperature of the stables caused by the horses and the pillars filling up the space, the circulation of air, which is so necessary for the comfort and health of the men, is greatly interfered with, and the men whilst cleaning their horses in the hot months must be pouring down with perspiration and inhaling a stagnant atmosphere with all the stench attendant on such closely confined stables, a state of things which must be very injurious to the men's health.

4. Again, these brick stables are so filled up with pillars that a person standing at the head of them cannot see more than two or three horses in the nearest stalls.

5. In contrast to these, take the fine, open, airy, high corrugated iron stabling at Kirkee, where standing at any corner one can see 400 horses at once. These stables are 15 feet high to the top of the iron pillars, and the roof about 4 or 5 feet more; such are the stables I most earnestly recommend for His Lordship's consideration should be constructed here, a man in these stables cleans his horse with a fine breeze (where there is one at all) blowing over both him and his horse, and he is comparatively cool and free from the disagreeable smells I have stated as existing in the brick stabling.

From the Officer Commanding Royal Artillery, Poona Division Army, to the Adjutant-General of the Army, dated 23rd November 1874, No. 289.

In compliance with the request contained in your memorandum, No. 6,930, dated 12th instant, I have the honor to forward herewith reports from Officers Commanding Batteries marginally noted as to whether the larger sized iron roofed stables at Kirkee are better suited for the protection of the men and horses from the heat as well as sun and rain than the standard plan.

2. I am of opinion that these stables are preferable to the brick stables of the standard plan, and consider that this plan of stabling has been attended with success, but I would suggest that both ends be closed in at the top in the "arch" by screens of corrugated iron in all these stables.

From the Officer Commanding D Company, Royal Horse Artillery, to the Adjutant, Royal Artillery, Poona Division Army, dated 18th November 1874, No. 451.

With reference to the Adjutant-General's memorandum, No. 6,930, dated 12th November 1874, I have the honor to report that the horses of the Battery under my command have occupied two of the large sized iron roofed stables since the 24th December 1873.

2. One of these stables is altogether open at both ends, and in the other the arch of the roof is closed at both ends by a screen of corrugated iron. If such a screen were supplied to the stables there would, I think, be nothing more to be desired for the protection of either men or horses, but the open ends are objectionable.

3. I have had no experience of the brick stables of the standard plan.

From the Officer Commanding D 9th, Royal Artillery, to the Staff Officer, Royal Artillery, Poona Division Army, dated 18th November 1874, No. 391.

I HAVE the honor, in answer to your minute of the 13th instant, on Adjutant-General's No. 6,930 of the 12th idem, to report that, in my opinion, the larger sized iron roofed stables occupied by the horses of the Battery under my command answer well as regards protection of men and horses from heat, sun, and rain.

2. The iron roofed stables are preferable to those of the standard plan occupied by horses of the Battery under my command when at Nusseerabad.

*Proceedings of the Madras Government, Public Works Department,
25th January 1875.*

From Lieutenant-Colonel Finch, Executive Engineer, to Quarter Master General, dated 8th December 1874, No. 5,309.

With reference to your letter No. 1-145/5,782 of the 4th instant, and accompaniment, I have the honor to inform you that iron work of the large stables at Kirkee was ordered out from England through a firm in Bombay, and no detailed account of it exists in this office. The cost of one stable, accommodating sixty horses, is Rupees 11,100; for iron work delivered at Kirkee Railway Station, the cost of conveyance of the materials to the site, and erection being Rs. 5,165.

TRANSFERRED to the Public Works Department.

(Signed) A. C. SILVER, Colonel,
Secretary to Government, M.D.

No. 432. Endorsement of the Secretary to Government in the Military Department, dated 8th January 1875, No. 99:—
From Colonel H. O'CONNELL, Deputy Quarter Master General, to Colonel A. C. SILVER, Secretary to Government, Military Department, dated Fort St. George, 5th January 1875, No. 75.

In continuation of this office letter, No. 8,690, dated 21st December 1874, I have the honor by order to annex copy of a letter from the Inspecting Veterinary Surgeon, Bombay, reporting favorably on the double iron sheds for stables recently erected at Kirkee.

From the Inspecting Veterinary Surgeon, to the Adjutant-General of the Army, dated 16th December 1874, No. 1,172.

In reply to your memorandum, No. 7,156, of the 24th ultimo, I have the honor to submit my views on the iron shed system as contrasted with the brick built stabling on the standard plan.

2. I am of opinion that the adoption of these sheds has been attended with success; that they afford a sufficiency of protection for the horses from the heat as well as from sun and rain, and I presume the same may be said as regards the men, for I have seen them at stables as late as 9 o'clock in the morning, and have never heard any complaints of their feeling the heat.

3. I consider further that these stables are very much superior to those on the standard plan in the matter of ventilation, and giving the horses more room; also in depriving them of any opportunity of rubbing their tails, etc., against pillars and posts, a nuisance which is unavoidable in some of them as those at Nusseerabad.

4. There is also an immense advantage in the open iron sheds that all the horses and all the men can be seen at once, whereas in the standard plan stables no more than four horses can ever be seen at their pickets at once.

5. It must be borne in mind that the climate throughout this Presidency is tolerably agreeable; possibly in other places where the extremes of heat and cold are greater, more protection therefrom may perhaps be requisite, but it is never desirable to keep horses in a state to be removed from that of nature; the protection the housing they receive should not be such as to render the sudden loss of it on the occasion of their going on the march or on service an additional risk. I submit that these open iron sheds are the happy mean between complete exposure and too much coddling of the horses, and if more stables had to be erected I should certainly advocate these, as I did last year for the Royal Artillery at Neemuch.

6. I must be understood all along to allude to the double iron sheds containing two lines of horses with a central street, the single sheds containing only one row of horses do not answer at all.

7. I am not competent to offer an opinion as to the comparative cost of the different plans.

*Proceedings of the Madras Government, Public Works Department;
25th January 1875.*

TRANSFERRED to the Public Works Department in continuation of docket, dated 22nd December 1874.

(Signed) A. C. SILVER, Colonel,
Secretary to Government.

No. 433.

ORDER THEREON, 25th January 1875, No. 209.

MILITARY WORKS, No. 11.

ORDERED that the copy of the plan of stabling erected at Kirkee be supplied to the District Engineer, Chingleput, for preparation, in communication with the General Superintendent of Government Workshops and the local Military Authorities, of estimates for such stabling as may be required at St. Thomas' Mount in supersession of estimates for stabling on the standard plan already sanctioned.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Superintending Engineer, Chingleput.
" District Engineer, Presidency.
" Military Department.

Exd. E. C. Shunker.
Spare Copies

Quarter Master General's Office,
Fort Saint George 21st Decr: 1844.

From No 8690.

Brigadier General A. Howlett C.B.
Quarter Master General.

To
Colonel A. C. Silver
Secretary to Government
Military Department.

Sir,
I have the honor to report
that the question of Iron Stabling
for Horses of the Mounted Branches
was recently brought under the notice
of His Excellency the Commander in Chief,
and having ascertained that stabling
of this description was in use by the
Batteries of the Royal Artillery at
Kirkree, information was sought for
from the Quarter Master General Bombay.
2. The papers now received from

Bombay speak of the Iron Stabling in such highly favorable terms in contrast to the stabling of the Standard Plan, as affording perfect shelter from the heat, sun and rain both for the Horses and men, that His Excellency desires to submit the correspondence for the favorable consideration of Government in the Public Works Department, and recommends that further enquiries be made as to the expediency of giving the Iron Stabling a trial in this Presidency.

3. The Budget List contains sanctioned estimates for stabling at the Mount, Bangalore and Bellary: and should Government accede to the proposal and resolve to give it a trial, the experiment might be tried at the Mount for one Battery of Royal Artillery - That Station being the nearest to the Shipping

Port.

Port, the transport charges would be correspondingly less than either of the other stations alluded to.

The following correspondence is enclosed.

Letter forwarded by Officer Commanding Ceded Districts No. — dated 15 October 1874.

Letter No. 1-145 dated 12 Decr. 1874 From Quarter Master General Bombay, with enclosures & Plan.

I have the honor to be,
Sir,

Yr. Obedient Servant,
A. J. Pringle

Quarter Master General

AJG

Bellary 3
 October 13 1874
 No 206
 From Major W. Lane
 Commanding 2nd District
 To Mr. D. M. General
 2nd District

Sir
 Having heard that Estimates
 have been called for for the stabling of the
 horses of the Battery of Royal Artillery at this
 Station & it is most desirable that they
 should be erected as soon as possible, many
 Australian horses being of delicate constitution.
 I have the honor to bring to the notice of
 the Brigadier Commanding the accompanying
 Catalogue of Messrs H. Morton & Co which shows
 single and double span galvanized corruga-
 ted iron self supporting sheds which I
 consider quite sufficient to protect the horses
 from the extreme heat and heavy rains and
 also cover for the men whilst grooming their
 horses, there being very few trees and those
 that are in the horse lines are of stunted growth
 own of

Noted
 22 Dec 1874
 if forwarded
 to the Secy: & sent:
 to the Secy: & sent:
 dated 21st 3 Dec:
 Dec: 21st 3 Dec:
 No 8690
 forward to
 forward to

relative to the question of
 stabling for three of
 the mounted batteries and
 necessary that further
 enquiries be made as to the
 Public Works Dept
 with a view to giving the
 stabling a trial with the
 Public Works Dept
 forward

owing to the hardness of the soil
 I would point out that the advantages
 of these stables would be ^{1st} much less
 expense in first purchase 2^d the still
 greater benefit to the State in case of
 a change in the locality being necessary
 owing to epidemics etc of raspberries &
 of the sheds to new ground 3^d the out-
 mowing required being a slight foundation
 The running sheds for the 110 horses
 of a Field Battery in 3 divisions allowing
 1 foot for each horse (3 horses in each
 division) 129 feet for the double shed
 running the 25 stalls of the 1st division
 were 130 feet for each division & the double
 shed would be 130 feet for each division
 The width single shed would be a barrier for
 of about 50 feet long for the 1st division
 as the 1st division would be a barrier for
 at least 100 feet long
 The price of the sheds is given in the
 Catalogue page 14. I have not yet
 calculated the cost of the sheds & out-
 about £500 which the 1st division
 carries by rail to Barrage would have to

110 horses
 110 horses
 110 horses

be added but even then the cost would
 be considerably less than permanent
 stables and the advantages much greater
 I beg to recommend may be
 submitted to W.C. the Commandant in Chief
 should the Brig. Genl. Commanding consider
 it worthy

I have the honor to be
 Sir
 Your most Obedt Servant
 H. Lane Major

Commanding R. Artillery District

Head Quarters Leeward
 Battery 15th October 1874
 Submitted

A. Macintyre Barrage Genl.
 Commanding Leeward

Received of the
 Cashier of the
 Treasury
 the sum of \$1000
 for the purchase of
 1000 lbs of
 iron for the
 building of the
 new bridge at
 the mouth of the
 river.

P. W. 1875 Dept.
 Prov. of the Army
 No. 127.
 From.
 The Secretary to Genl.
 Military Dept.

Dated 8th } Summary of
 Recd 9th }
 Encl. No. 99.
 Transferring
 papers reporting
 favorably on the
 double iron sheds
 for stables, lately
 erected at Kirkc.

No 432

86. 205. 25-1-75

116 lines in date,
 76,265 for 60 lines
 42 lines in date

Stabling has been attended
with success, but I would
suggest that both ends be
closed in at the top in the "arch"
by screens of corrugated iron
in all three stables.

Copy of a letter from the
officer Commanding D/C Royal
Artillery to the Adjutant
Royal Artillery P.D.O. No. 451 dated
18th November 1874.

With reference to the Adjutant
General's Memo. No. 6930 dated
12th November 1874 I have the honor
to report that the horses of the
Battery under my Command
have occupied two of the larger
sized iron roofed stables since
the 24th December 1873.

One of these stables is
altogether open at both ends
and in the other the arch of the
roof is closed at both ends by
a screen of corrugated iron.
Sp

If such a screen were supplied
in all the stables there would
I think be nothing more to be de-
sired for the protection of either
man or horses, but the open ends
are objectionable.

I have had no experience
of the brick stables of the Stand-
ard plan.

Copy of a letter from the officer
Commanding D/C Royal Artillery
to the Staff Officer Royal Artillery
P.D.O. No. 391 dated 18th November 1874.
S.M.D.

I have the honor in answer
to your Minute of the 13th Instant
on Adjutant General's No. 6930 of
the 12th Idem, to report that in
my opinion the larger sized iron
roofed stables occupied by the
horses of the Battery under
my Command answer well as
regards protection of men and
horses from heat, sun and rain.

The

The iron-roofed stables
are preferable to those of the
standard plan occupied
by horses of the Battery under
my Command when at Kas-
sarahad.

On the 26th of the month of May 1861
the horses of the Battery
under my Command were
moved from the Kasarahad
stables to the new stables
at the Battery.

The new stables are
built of brick and
are very comfortable
for the horses.

10
the tiles on the man's head,
also how the stables are filled
up with brick pillars. I am
of opinion therefore that letting
the great heat into considera-
tion and the close tempera-
ture of the stables caused by
the horses and the pillars fil-
ling up the space, the cir-
culation of air which is so
necessary for the comfort and
health of the men is greatly
interfered with and the men
whilst charging their horses
in the hot months must be
pouring down with perspi-
ration and inhaling a
stagnant atmosphere with
all the stench attendant
on such closely confined
stables. a state of things which
must be very injurious to the
men's health.

4. Again these brick stables
are

are so filled up with pillars that a person standing at the head of them cannot see more than two or three horses in the narrow stalls.

In contrast to these, take the fine open, very high corrugated iron stabling at Nerke, where standing at any corner one can see 400 horses at once. These stables are 15 feet high to the top of the iron pillars, and the roof about 4 or 5 feet more. Such are the stables I most earnestly recommend for His Lordship's consideration should be constructed here. A man in these stables cleans his horse with a fine breeze (where there is one at all) blowing over both him and his horse and he is comparatively cool and free from the disagreeable smells I have stated as existing in the brick stabling.

all the 5964/11

ms

1-145
5899

S.P. 5

Quarter Master General's office
Rangoon 10 December 1874.

From
The Quarter Master General

To
The Quarter Master General
Madras

Sir,
In reply to your letter No. 455 of 23rd October I have the honor to forward copies of reports received from the Officer Commanding Royal Artillery, Nerke, as to the suitability of Iron Stables with letter from the Executive Engineer Rangoon, giving the cost of the same.

A plan of the stables is enclosed.

A report by the Inspecting Veterinary Surgeon (who is at present on tour) on the Iron Stables will be forwarded when received.

received.

4. The Iron Stables at
Riches, in contrast with those
on the Standard plan at
other stations, are highly ap-
proved by all officers of the
Royal Artillery, and on this
subject I beg to attach copy
of letter from Major General
Forster C. B. Royal Artillery,
when in Command of N. 1806 of 10
the Northern Division July 1869
of the Army.

5. The relative cost of the
two descriptions of Stables
would depend much on the
locality in which they were
to be erected.

I have the honor to be,

Sir,

Your most obedient servant,

London. Wm. Smith & Co.

for offg Quarter Master General

H.

Copy of a letter N. 1806 dated
10 July 1869. from the Brigadier
General Commanding N. & A.
to the Quarter Master General.

I beg to take the liberty of
addressing you on the subject
of the Brick and Lick Stabling
for the Royal Artillery at this
Station. His Excellency the
Commander in Chief is acquain-
ted with this subject from the
reports I have more than once
submitted. I take this oppor-
tunity of writing on this sub-
ject especially because at
my suggestion Colonel Smith
Commanding Royal Artillery
N. & A. has kindly furnished
me with some valuable sta-
tistics which tend to show the
uneconomicalness of such sta-
bles for this climate.

2. I give here the temperatures of the stables of A Battery 18th Brigade (these are of the new-pattern) for one week from which it will be seen that the mean temperature at 5 P. M. is more than 100.

Temperature of the stables of A/18 Brigade at Ahmedabad for one week.

Time	6 A.M.	Noon	5 P.M.
24	85.7	97.7	103.
25	87.	98.	101.
26	87.3	98.8	103.
27	87.7	98.5	103.
28	83.6	99.	103.5
29	85.	97.	100.
30	83.	98.5	100.
Mean	85.6	98.2	101.9

These are the new-pattern.

3. I also enclose a rough sketch of the stables referred to, from which it will be seen how low the stables are and how the heat must strike them.

1876
Box 12. Recule,
St. Charles, N. J.
Imp'd
See No 5964 of 1/4

Drawing O.

As designed and erected by F. M. & Co.,
Limited, for the Right Hon. LORD HILL, in
the Island of Skye, N.B.

PRICE—With Seven Rooms, £350 to £400, erected, complete.
Prepared, ready for Erection, and delivered alongside
Ship in Liverpool, £320 to £370.

DOUBLE IRON-LINED FIRE-PROOF STORE.

As designed and supplied by F. M. & Co., Limited, for the NEW ZEALAND GOVERNMENT.

Drawing 30.

Size, 60 ft. long by 25 ft. span, by 15 feet to the square. Price (exclusive of erection), about 7a. per square foot of ground covered on Plan.

FRANCIS MORTON & CO.'S IMPROVED GALVANIZED IRON TILES.

NOTE.—Instructions for Fixing.—The Galvanized Screws for fastening must be put in on the tops of the rolls in all cases; no fastenings of any kind must pass through the flat of the sheets, or the roof will leak. The tiles for laying on open rafters at A, B, cut, on one edge only, an for the ridge and eave lines, the intermediate tiles being cut on both edges for clipping into each other, the exact number of them on the slope must be determined on the spot, according to length on slope of roof. The upper face of the open boards, 14 in. by 1 in. of an, is a washer being placed under the head of each screw. When the tiles are laid on boards, as at O to D, a simple overlap of 4 in. of the tile is sufficient in most cases (i.e. without the edges being cut and turned over to clip one in the other), but they can be laid on boards either way, i.e., either with plain overlap joint, or clip joint; in very windy situations the clip joint is preferable.

Fig. 1.

This sketch is introduced to show that a roof 10' or less in about 25 ft. above eads. Tiles are adapted for any span, but for wide spans the timber framing would require a stronger arrangement.

Section when tiles are laid on open rafters as at A to B.

PRICE of these Improved Galvanized Iron Tiles, 3 ft. long by 1 ft. 6 in. or 2 ft. wide, 27 lbs. to 33 lbs. per Case of 100 Tiles (including skeleton cases).—Galvanized Ridge Cap 9d. per foot extra.—Ornamental Cast Iron Guttering 2s. per foot extra.—Galvanized Screws, with one washer to each, 4s. 6d. per gross extra. In Ordering Tiles please give length on slope of roof, with length of Building; also, if Tiles are to have plain overlap joint or clip joint.

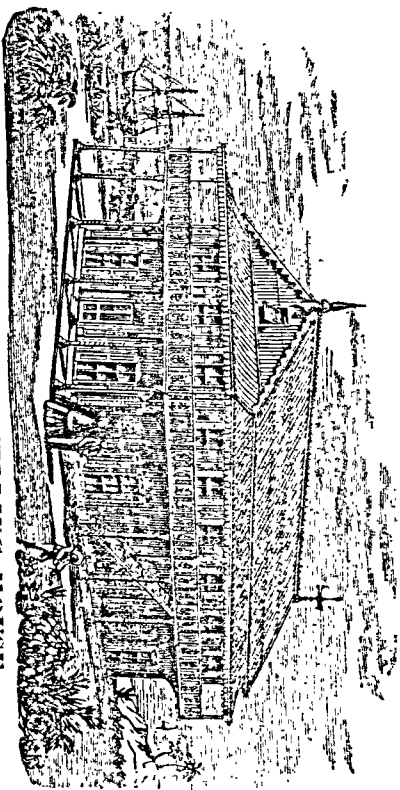
Our only Correct Address is—FRANCIS MORTON & COMPANY, LIMITED, NAYLOR ST., LIVERPOOL.

ESTABLISHED ABOVE QUARTER OF A CENTURY.

London Branch—35, Parliament St., Westminster.
Glasgow Branch—Bank of Scotland Buildings, 18,
George Square.

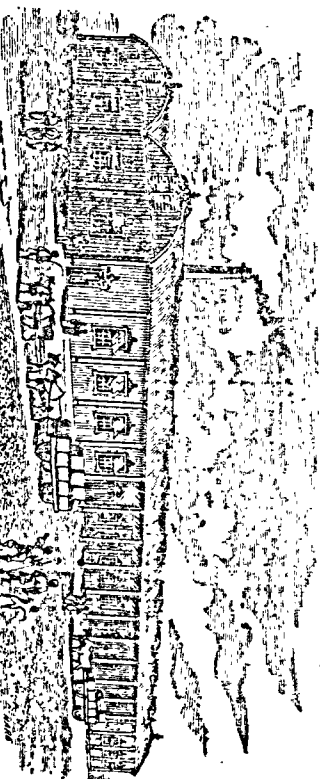
Illustrations of Francis Morton & Co.'s (Limited) Improved Iron Buildings, for Home use & Export.

THESE VIEWS REPRESENT A FEW OF F. M. & CO.'S NUMEROUS EXECUTED WORKS (Approximate Prices below).
ANY OTHER DIMENSIONS ESTIMATED FOR.



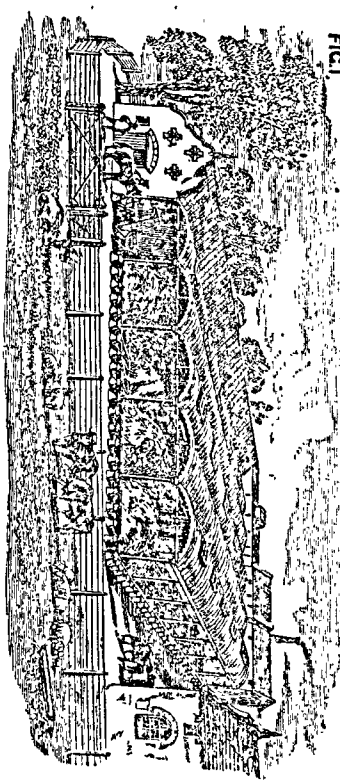
IRON STORE AND DWELLING HOUSE.

This view represents a large Iron Store and Dwelling-House, designed and supplied by F. M. & Co., for Turk's Island, West Indies, and which weathered the fearful tornado of 1866, while nearly all surrounding buildings were destroyed.
Area covered, including Balcony, 65' x 41' x 24' to square of building.
Approximate prices, 7s. 6d. to 9s. per square foot of ground covered.



COTTON GINNING FACTORY AND WAREHOUSE.

Designed and supplied by F. M. & Co., for Egypt.
Area covered, 193' x 53' x 17' to square of building.
Approximate prices, 12s. 6d. to 2s. 10d. per square foot of ground covered.

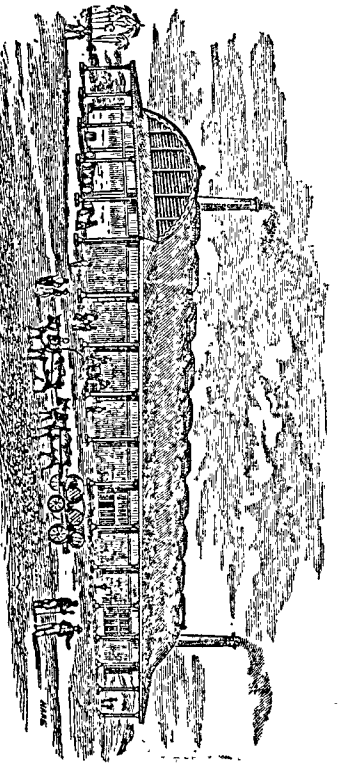


FABRI YARD.

Wholly covered with F. M. & Co.'s Galvanized Iron Fire-Resisting Roofs.

The covering in of Shack and Rick Yards, though so strongly recommended by the highest practical authorities, has hitherto been attended with too much uncertainty and expense, owing to the costly and perishable Roofing usually proposed, affording, at the same time, no security against Fire. Our Iron Roofs are economical, easily and quickly erected, save all cost of future repairs and maintenance, cannot be injured by violent winds, are removable without injury, and, above all, Fire-proof. Crops thus housed are effectually protected from the disastrous ravages of vermin, wet, hailstones, fire, and general waste, and are brought to market in the finest condition.

Price of Galvanized Iron Roofs to cover an area of 100 ft. by 100 ft., delivered and erected complete on Proprietor's wood wall plates and uprights, £370 nett.
NOTE.—Any other dimensions estimated for on application to F. M. & Co.



IRON SUGAR MANUFACTORY.

Designed and supplied by F. M. & Co. for the West Indies.
Area covered, 141' x 63' x 17' to square of building.
Approximate prices, 2s. 3d. to 2s. 7d. per square foot of ground covered.

IMPROVED SYSTEM OF IRON CHURCH BUILDING.

FRANCIS MORTON & CO., LIMITED, beg to take this opportunity of stating, that they have now prepared an elaborate "Illustrated Treatise on Iron Church, Chapel, and School House Building," which they have the pleasure of submitting to the attention of Clergymen, and all interested in the erection, at home or abroad, of Churches, Chapels, School Houses, or Lecture Rooms, either for temporary or permanent use.

F. M. & Co., Limited, are, on receipt of enquiries stating accommodation needed, prepared to forward Designs and Estimates.

The Church Building Department of F. M. & Co., Limited, having been placed under the management of an experienced Architect, specially appointed by the Company for this purpose, his professional skill, and knowledge of practical details, ensures the erection of Iron Churches, Chapels, &c., in a style not hitherto accomplished; and, we believe, at a cost so moderate as to obtain a large share of the patronage of the Public. These Buildings, when PROPERLY DESIGNED, can be made to possess not only beauty of outline and detail, but all the comfort of stone buildings, at less, often, than ONE-FOURTH THE COST.

Please note that all enquiries should be addressed to the Company's Works, thus:—

FRANCIS MORTON & CO., LIMITED, Engineers and Iron Church Builders, LIVERPOOL.

By the kind permission of the Rev. P. L. SANDBERG, M.A., we have the pleasure to annex the following Letter:—

(Copy.)

ST. JOHN'S PARSONAGE, BIRKENHEAD, June 17, 1867.

GENTLEMEN,—I have great pleasure in expressing to you the satisfaction I feel with St. Mark's Iron Church. Its exterior and architectural features are so very beautiful, and in harmony with the general type of the Ecclesiastical buildings in this country, that it is quite an ornament to the neighbourhood in which it stands. Its interior arrangements are so very commodious, and in such strict accordance with our Church system, that it leaves nothing to be wished for. The improvement that you have introduced, of plastering the interior walls, adds greatly to the impression of its thorough substantiality and permanence.

I have, since its completion, often wondered that in these days, when so much Church room is wanted throughout the country, this class of Churches, which is so cheap, substantial, ornamental, and quickly raised, should not have been made more use of than it has. I shall be ready, not only to show the building to any one who may wish to see it, but I shall be happy to answer any enquiries respecting it.
Thanking you for all your attention and courtesy,

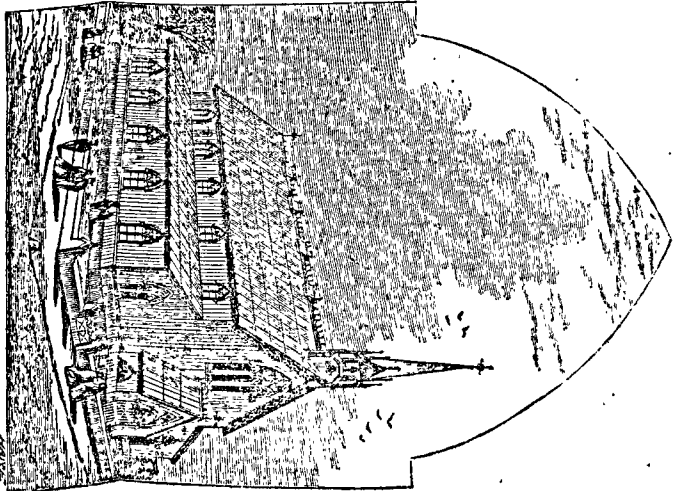
Believe me,

Yours faithfully,

PAUL L. SANDBERG.

Incumbent of St. John's, Birkenhead.

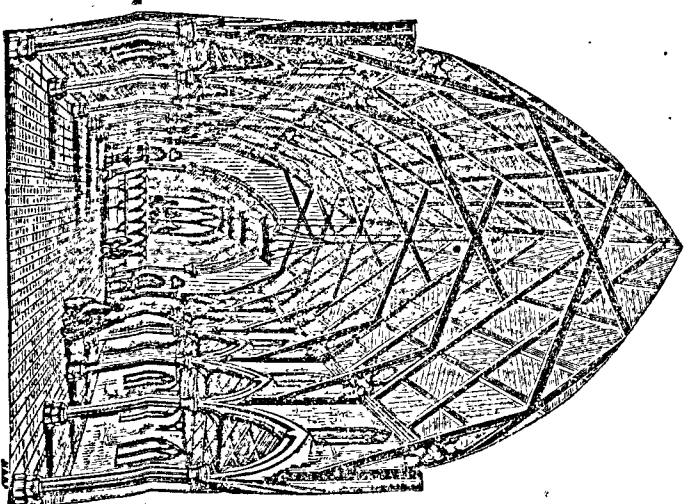
Messrs. FRANCIS MORTON & Co. (Limited),
Iron Church Builders, Nagley Street, Liverpool.



EXTERIOR VIEW.

The Church above shown (St. Mark's, Claughton, Birkenhead), was erected in 1867* for the Rev. P. L. Sandberg, M.A.

* Since this date, numerous Churches, Chapels, and School Houses have been erected, on the completion of which Francis Morton & Co. have received similar gratifying testimonials.



INTERIOR VIEW.

F. M. & CO., LIMITED, are also the Patentees and Sole Manufacturers of F. Morton's Improved System of STRAINED WIRE FENCING, of which "SEVERAL THOUSAND MILES" have been supplied during the last few years.

SEE SEPARATE CATALOGUES ON APPLICATION.

Also, the following are Manufactured and Supplied by F. M. & Co., Limited:—CAST and WROUGHT IRON GATES, HURDLES, NETTING, WIRE ROPES, WEIGHING MACHINES, TELEGRAPH WIRE, LIGHTNING CONDUCTORS, ASPHALTED ROOFING FELT, DRY HAIR FELTS, GALVANIZING of all kinds done.

Our only Correct Address is—FRANCIS MORTON & COMPANY, LIMITED, NAYLOR ST., LIVERPOOL.

ESTABLISHED ABOVE QUARTER OF A CENTURY.

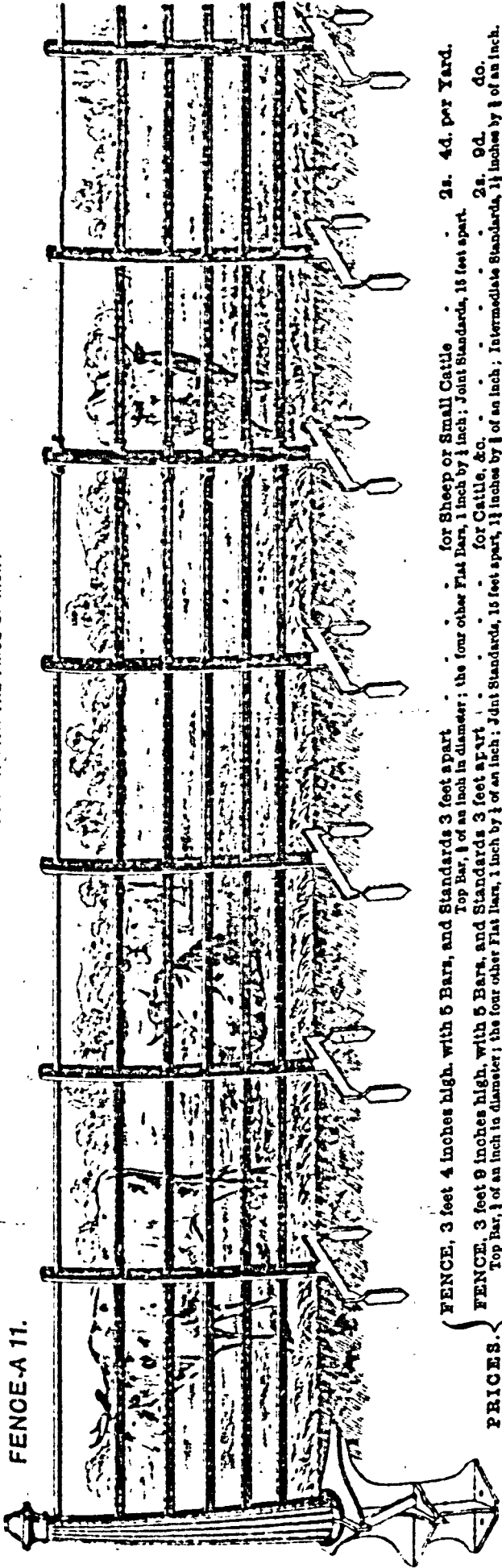
London Branch—35, Parliament St., Westminster.
Glasgow Branch—Bank of Scotland Buildings
(George Square).

how the heat must destroy iron

SPECIAL ESTIMATES GIVEN FOR CONSIDERABLE QUANTITIES.
FRANCIS MORTON & CO.'S, LIMITED, IMPROVED CONTINUOUS IRON FENCING
FOR CATTLE AND GENERAL PURPOSES, WHEN STRAINED FENCES ARE NOT USED.

(THE PRICES OF THIS FENCE VARY WITH THE PRICE OF IRON.)

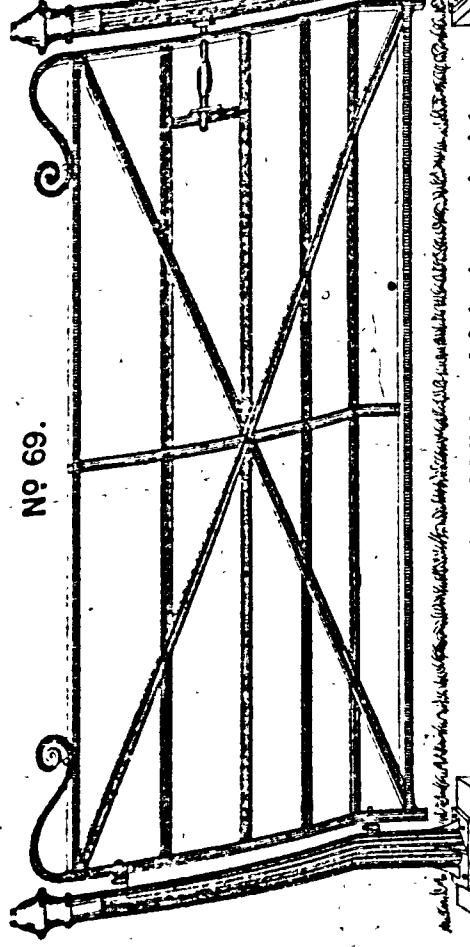
FENCE-A 11.



PRICES.
PATENT FOOT.
FENCE, 3 feet 4 inches high, with 5 Bars, and Standards 3 feet apart
 Top Bar, $\frac{1}{2}$ of an inch in diameter; the four other Flat Bars, 1 inch by $\frac{1}{2}$ inch; Joint Standards, 15 feet apart. 2s. 4d. per Yard.
FENCE, 3 feet 8 inches high, with 5 Bars, and Standards 3 feet apart
 Top Bar, $\frac{1}{2}$ of an inch in diameter; the four other Flat Bars, 1 inch by $\frac{1}{2}$ inch; Joint Standards, 15 feet apart. 2s. 9d. do.
FENCE, 4 feet 6 inches high, with 6 Bars, and Standards 3 feet apart
 Top Bar, $\frac{1}{2}$ of an inch in diameter; the four other Flat Bars, 1 inch by $\frac{1}{2}$ inch; Joint Standards, 15 feet apart. 3s. 2d. per Yard.
FENCE, 4 feet 8 inches high, with 6 Bars, and Standards 3 feet apart
 Top Bar, $\frac{1}{2}$ of an inch in diameter; the four other Flat Bars, 1 inch by $\frac{1}{2}$ inch; Joint Standards, 15 feet apart. 3s. 6d. per Yard.
TERMINAL POSTS, 15s. EACH; OR, IF SELF-FIXING, 25s. 6d. EACH. DEER FENCING, FROM 3s. 6d. TO 4s. 6d. PER YARD, 6 FEET HIGH.

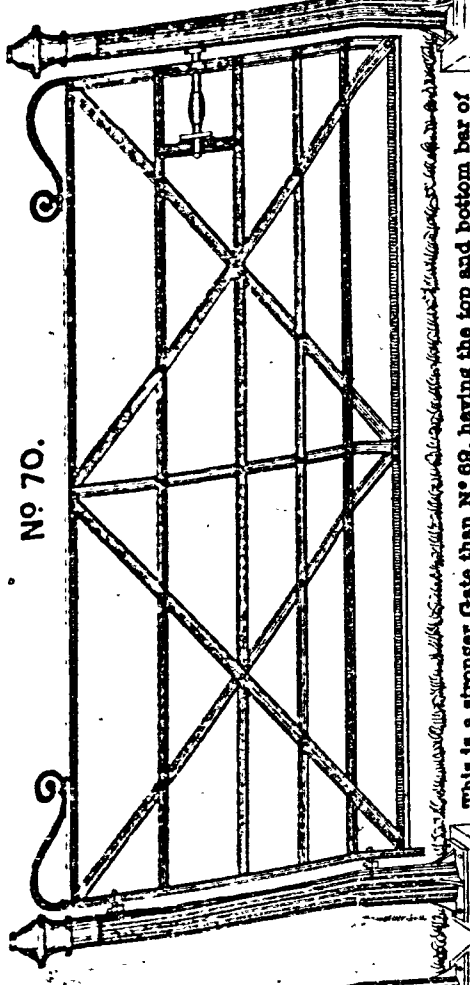
CHEAP FIELD GATES CAN BE SUPPLIED AS LOW AS 18s. EACH.

№ 69.



This is an exceedingly useful Gate, and, being inexpensive, is in great demand. It is made entirely of flat bar iron.
 Size: 9 ft. by 4 ft. Price—£1 4s. 0d. Extra strong cast iron fitted Posts for same, £1 5s. 0d.

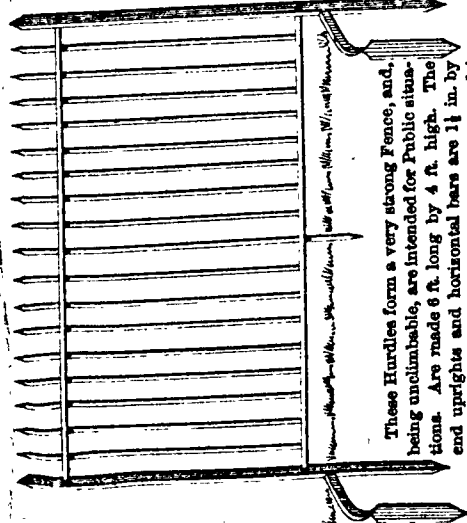
№ 70.



This is a stronger Gate than № 69, having the top and bottom bar of Tee Iron, which gives it considerable stiffness and strength. The remaining bars are of flat bar iron.
 Size: 9 ft. by 4 ft. Price—£1 7s. 6d. Extra strong cast iron fitted Posts for same, £1 5s. 0d.

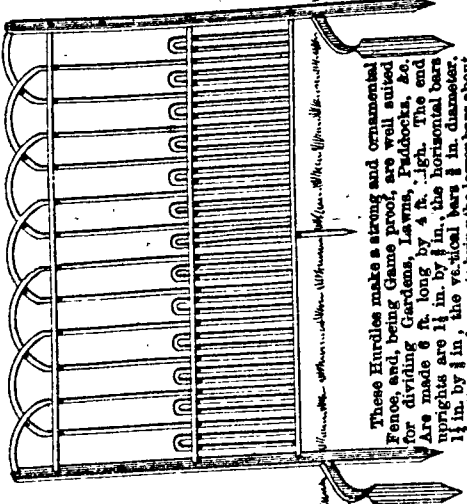
OUR WROUGHT-IRON FIELD AND ENTRANCE GATES, MADE IN GREAT VARIETY OF DESIGN.

№ 13.



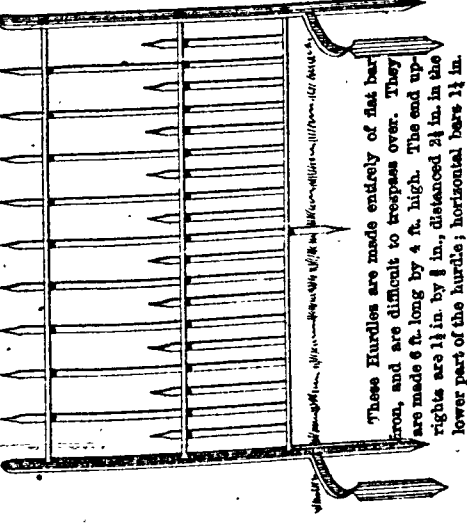
These Hurdles form a very strong Fence, and, being unclimbable, are intended for Public situations. Are made 6 ft. long by 4 ft. high. The end uprights and horizontal bars are $\frac{1}{2}$ in. by $\frac{1}{2}$ in. The vertical bars $\frac{1}{2}$ in. diameter, spaced 4 in. apart. Price 5s. 6d. per yard.

№ 14.



These Hurdles make a strong and ornamental Fence, and, being game proof, are well suited for dividing Gardens, Lawns, Paddock, &c. Are made 6 ft. long by 4 ft. high. The end uprights are $\frac{1}{2}$ in. by $\frac{1}{2}$ in. The horizontal bars $\frac{1}{2}$ in. by $\frac{1}{2}$ in. The vertical bars $\frac{1}{2}$ in. diameter, and distanced so as to bring the lower bars about $\frac{1}{2}$ in. apart. Price 6s. 6d. per yard.

№ 15.



These Hurdles are made entirely of flat bar iron, and are difficult to trespass over. They are made 6 ft. long by 4 ft. high. The end uprights are $\frac{1}{2}$ in. by $\frac{1}{2}$ in. The horizontal bars $\frac{1}{2}$ in. by $\frac{1}{2}$ in. The lower part of the hurdle; horizontal bars $\frac{1}{2}$ in. by $\frac{1}{2}$ in. Price 6s. 3d. per yard.

EVERY DESCRIPTION OF HURDLES, PLAIN OR ORNAMENTAL, SUPPLIED.

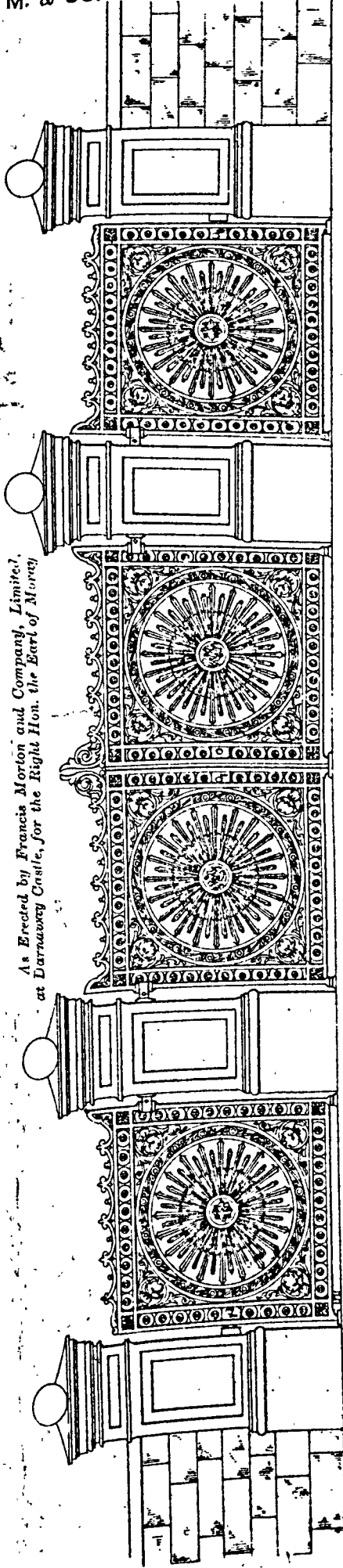
HIGHLY-ORNAMENTAL CAST-IRON GATES, FOR PARK APPROACHES, MANSIONS, PUBLIC BUILDINGS, &C.

MADE IN A GREAT VARIETY OF DESIGNS, BOTH IN CAST AND WROUGHT-IRON.

Price per Set as above, complete, with Hangers for Stone Piers, £188 10s.

CENTRAL GATES, 18 FEET WIDE BY 9 FEET HIGH. SIDE GATES, 9 FEET WIDE BY 9 FEET HIGH.

As Erected by Francis Morton and Company, Limited, at Darnley Castle, for the Right Hon. the Earl of Moray.



Price per Set as above, complete, with Hangers for Stone Piers, £188 10s.
 Central Gates, 18 ft. wide by 9 ft. high. Side Gates, 9 ft. wide by 9 ft. high.

Our only Correct Address is—FRANCIS MORTON & COMPANY, LIMITED, NAYLOR ST., LIVERPOOL.

London Branch—35, Parliament St., Westminster.

Glasgow Branch—Bank of Scotland Buildings, 18, George Square.

ESTABLISHED ABOVE QUARTER OF A CENTURY.

also of their well-known **W** **D**rawn and **W** **W** Rolled **SOLID FENCING WIRE.**

JAN: 1869

The larger Sections of 7-ply Fencing Strands, if made up 3-ply, can be produced at still cheaper rates; but this make is not recommended, as the larger Strands thus made up lose much of the steel-like elasticity and spring they should possess, and which qualities give our Fencing Strands their special value.																					
Size of our "Standard Quality" Fencing Strand as originally Introduced by us.		Corresponding Size in the B & W G.		Diameter of Strand Wire in Inches.		Length per Ton of our Cable Strand in Yards.		Corresponding Length of our Solid Wire in Yards.		Breaking Strain, about, in Lbs.		Weight of Annulated Solid Wire, about, in Lbs.		Price per Cwt. of our Best Heat Treated Solid Wire.		Price per Cwt. of our Best Heat Treated Solid Wire.		Price per Cwt. of our Rolled Wire, Black.		Price per 100 Yards of our Galvanized Fencing Strands.	
	No. 0		No. 0	0.326		3000		12700		5418		4450		11/-		12/6		8/6		17/9	
	No. 5		No. 1	0.300		3800		3200		4095		3770		11/-		12/6		8/6		16/6	
	No. 4		No. 2	0.274		5600		3850		3500		3140		11/-		12/6		8/6		11/-	
	No. 3		No. 3	4		6000		4650		3000		2618		11/-		12/6		8/6		10/-	
	No. 00		No. 4	0.229		6200		5500		2600		2197		11/-		12/6		8/6		9/3	
	No. 0		No. 5	0.209		7800		6600		2000		1830		11/-		12/6		9/-		8/-	
	No. 1		No. 6	0.191		9800		7900		1600		1528		11/-		12/6		10/-		6/6	
	No. 2		No. 7	0.174		11,000		9550		1404		1268		11/6		13/6		...		5/3	
	No. 2A		No. 8	0.159		15,000		11,400		1100		1060		12/6		14/-		...		4/-	

Sizes generally used in this country for Cattle and Sheep Fencing.

Sizes generally used in this country for Cattle and Sheep Fencing.

Solid Wire, if Galvanized, £4 10s. per Ton extra; if Oiled, 5s. per Ton extra.

The superior value of our *Cable Strand* for Fencing purposes as compared with Solid Wire is now so well understood that it is only necessary, briefly, to recapitulate some of its principal advantages, viz.—Weight for weight, a much longer length per ton; Size for size, much greater strength, increased durability, more permanent efficiency, absence of any cost of maintenance, cannot get bent or broken like Solid Wire, is not injured by trespassing over; and, above all, saves from *one-half to two-thirds in cost of fencing*.

As the calculated breaking strains of our "Standard quality Galvanized Cable Fencing Strands" are *higher*, size for size, as compared with Solid Wire, it is important to note that a *size smaller* of our Cable Strand can be used and yet give the same approximate strength as compared with Solid Wire, and consequently a *still longer length per ton obtained*, thus reducing the ultimate cost per yard of the Fence. For instance, our No. 00 Galvanized Cable Strand gives about 6200 yards per ton, with a breaking strain of about 2600 lbs., which is about equal to the breaking strain of the *next size larger* of Solid Wire, viz., No. 3 BWG, and which size of Solid Wire runs out only about 4650 yards per ton, as against about 6400 yards per ton of our No. 00 Galvanized Strand.

TO INTENDING PURCHASERS.

GENERAL REMARKS

ON THE VARIOUS FORMS OFFERED OF
WIRE FENCE INTERMEDIATE IRON STANDARDS.

Prior to the numerous modern improvements in the form of "Iron Fence Standards or Posts," the old-fashioned *pronged* Standards were principally in use; but from their great liability to fracture at the welds of the prongs, and their exceedingly insecure hold in the ground, they may now be said to have become *quite obsolete* for Strained Wire Fencing of an efficient character. To obviate the defects of the old pronged Standard, a variety of forms have been introduced, known as Triangular Foot, Anchor Foot, Flanged Foot, Screw Foot, Tripod Foot, Sleeper Foot, Resisting Plate Foot, &c. &c., and various somewhat similar terms; some of these are a manifest improvement on the old pronged Standard, but whether made of Bar Iron, Glider Iron, H Iron, V Iron, Channel Iron, Angle Iron, or Tee Iron, &c. &c., *they all more or less fail to possess the essential requisite for a thoroughly satisfactory "FENCE STANDARD or POST," viz., "PERFECT RIGIDITY IN EVERY DIRECTION,"* thus requiring no keying, tying, or wedging to the Wires of the Fence.

It is manifest that the Fence Post should support the Wires and Strain of the Fence, and *not* the Wires really support the Fence Post, as is generally more or less the case. The essential requisites of a good Fence Post or Standard, we beg to point out, are secured by our "Patent Oval Tapered Standards," as shewn in Fence A5, AA5, and A1. This form of Post is admittedly *by far the best and most complete hitherto offered.*

When, however, a *cheap class* of Fencing is considered sufficient, and *first cost* is the main object, F. M. & Co. manufacture every kind of Bar Iron, or Fancy Section Standards, with various forms of Feet, and these are supplied at from 9/- per dozen for Fences 3 feet to 4 feet high, to 28/- per dozen, according to description; and F. M. & Co. beg to say, that they are always prepared to Estimate for any class of Fencing not illustrated in the Catalogue, when favoured with necessary particulars.

FRANCIS MORTON & CO., LIMITED, Manufacture the following, viz. :—

AGRICULTURAL IRON ROOFS, BUILDINGS, HOUSES, &c., of every description.

IRON CHURCHES, CHAPELS, SCHOOLS, &c.

IMPROVED WEIGH BRIDGE and WEIGHING MACHINES, for Railway and Farm use.

WIRE ROPES, Steel and Charcoal, for Collieries, Mines, &c.

HURDLES and GATES, in Wrought and Cast Iron, in great variety. Also,

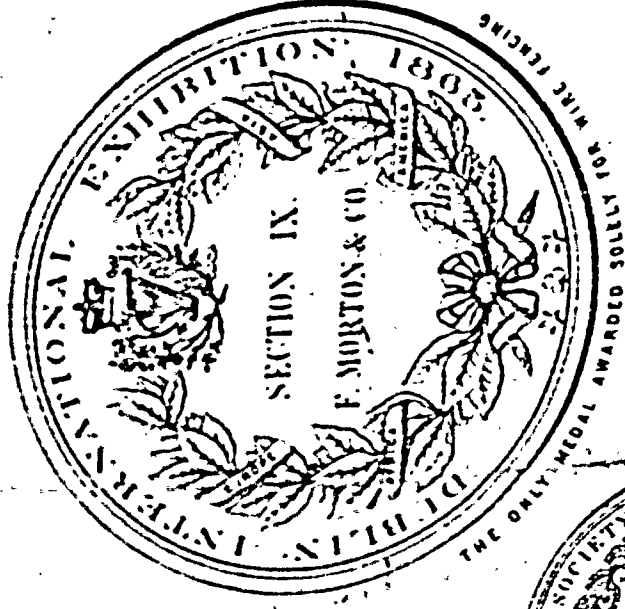
PATENT IRON TELEGRAPH POLES, TELEGRAPH WIRE, &c.—PRICES ON APPLICATION.

N.B.—In sending orders or inquiries for Wire Fencing, all that is necessary is a rough outline, showing the run of the Fence lines, whether straight or curved, with the positions marked of any Gates, Openings, or breaks in the Fence.

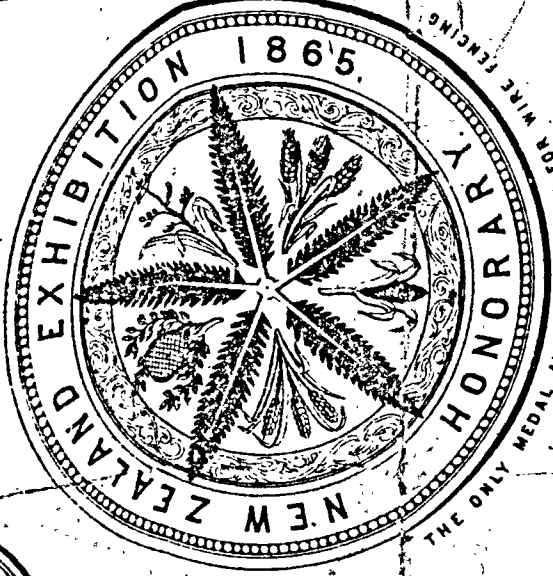
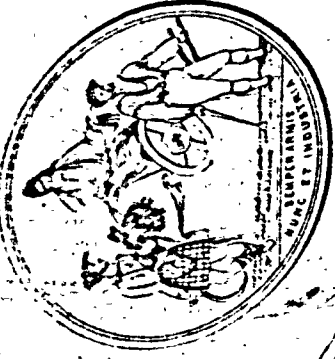
NEW ABRIDGED SERIES, 1869.

Illustrations of some of the *Prix Medals* Awarded to Francis Morton & Co., Limited, Liverpool,
FOR THEIR PATENTED IMPROVEMENTS IN STRAND WIRE FENCING, &c. &c.

FRANCIS MORTON & CO. LIMITED ARE THE ORIGINAL PATENTEES AND SOLE MANUFACTURERS.



ILLUSTRATIONS OF SOME OF THE
PRIZE MEDALS AWARDED TO FRANCIS MORTON & CO. LIMITED
LIVERPOOL.



FRANCIS MORTON & COMPANY, LIMITED, ENGINEERS AND GOVERNMENT CONTRACTORS, THE PATENT FENCING, GALVANIZED AND CORRUGATED IRON WORKS.

HEAD OFFICES AND WORKS:—LIVERPOOL.

LONDON BRANCH:—35, PARLIAMENT ST., WESTMINSTER. | GLASGOW BRANCH:—BANK OF SCOTLAND BUILDINGS, 18, GEORGE SQ.

Directors.

SAMUEL FIELD, Esq., Chairman, Richmond House, Anfield, Liverpool.

PETER RYLANDS, Esq., M.P., of RYLANDS BROTHERS, Wire Drawers, Warrington, and Chairman of the Warrington Wire Iron Company, Limited.

FRANCIS MORTON, Esq., 35, Parliament Street, Westminster.

General Manager.

W. LLEWELLYN DAVIES, Esq.

Bankers.

Messrs. THE LIVERPOOL UNION BANK.

Messrs. ELLIS & FIELD, Talbot Chambers, Fenwick Street, Liverpool.

Solicitors.

Mr. THOMAS OWEN.

In submitting another revised issue of our ABRIDGED ILLUSTRATED PROSPECTUS of our PATENTED WIRE FENCING and IRON ROOFING, &c., we are glad to be able to announce the great yearly increasing adoption of our Patented Improvements, which, after several years' use and practical test, have proved that they form an essential part of a thoroughly satisfactory Wire Fence. In proof of what we now state, we beg reference to the following facts, viz.—

That during the last few years, our PATENTED IMPROVEMENTS HAVE GONE INTO USE OVER SEVERAL THOUSAND MILES OF FENCING, and that since the introduction of our Improved Patented System by the late FRANCIS MORTON, Esq., A.L.C.E., numerous imitations purporting to be efficient substitutes of, or improvements on, our Patents, or otherwise proved to be inferior to our PATENTED RIGHTS, have been offered under various names, such as—"WINDLASS"—"CAPTAIN"—"IMPROVED WINDING"—"CLUTCH"—"WORM and WHEEL"—"SLIDE," &c., and other somewhat similar terms. As these so-called improvements, often offered by dealers and others, have been accompanied by illustrations and letterpress, adopting in some cases, more or less, our OWN TERMS AND DESCRIPTIONS, we feel sure it is only necessary that we should point out this unprincipled practice in order to protect intending purchasers from being misled.

It is not our custom, for obvious reasons, to advertise a List of Noblemen, Gentlemen, &c., who have favoured us with their orders, but at any time we shall be happy to submit to intending purchasers, if desired, such Testimonials as we have kindly had permission to make use of.

We also take this opportunity of announcing that we have at our Works, Naylor Street, Liverpool, fitted up a portion of our Premises (erected specially for the purpose) with a number of Models and Examples, fixed in position, of our Patented Fences; also, Gates, and Iron Buildings (Roofs, Houses, &c.).

As the late Francis Morton, Esq., was the original introducer (upwards of twenty years ago) of the Galvanised Cable Strand for Park and Railway Fencing purposes, it is important to note that he introduced at the same time our own system of numbering the sizes of our "Standard Quality Strands," giving them a DISTINCTIVE NOMENCLATURE to distinguish them from the Birmingham Wire Gauge for Solid Wire. We mention this, as we observe certain parties are endeavouring to produce confusion in the minds of purchasers, by stating that the distinctive names of our Fencing Strands are smaller than the Birmingham Wire Gauge, but they omit to state the fact, that as our Cable Strands, as named by us, give a very much longer length per cwt., a distinct name indicating the proper size for use was necessary to prevent confusion, and purchasers being misled in calculating the price per yard. For instance, our No. "O" Galvanised Strand contains about 7,800 yards per ton; No. "O" Solid Wire contains only about 2,700 yards per ton; if, therefore, the Wire was purchased by the ton according to the Birmingham Wire Gauge, a large loss in length would accrue. The ultimate cost of a Fence must be determined at per yard, and therefore, the longer the lengths per ton (consistent with strength and efficiency), by so much does the purchaser benefit. Our system, therefore, of giving our Fencing Strands a distinctive name has been adopted solely in the interest of the purchaser. We specially notice this point, owing to many complaints that we have received of purchases having been made "per ton" according to the Birmingham Wire Gauge for Solid Wire, instead of according to the "Standard Strand Numbers" introduced by us. That this point may be more clearly understood, we have annexed, at page 4 of this Sheet, a Comparative Table of Lengths per ton, also of Weights and Sizes, of our Galvanised Cable Strands and Solid Wire.

Our only Correct Address is—FRANCIS MORTON & COMPANY, LIMITED, NAYLOR ST., LIVERPOOL. London Branch—35, Parliament St., Westminster. Glasgow Branch—Bank of Scotland Buildings, 18, George Square.

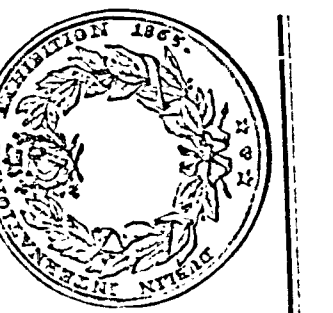
THIS SHEET CONTAINS MERELY A FEW GENERAL ILLUSTRATIONS OF OUR MANUFACTURES.—ENLARGED CATALOGUES ON APPLICATION TO F. M. & CO.



NEW ABRIDGED SERIES-1869.

FRANCIS MORTON & CO., LIMITED,

ENGINEERS AND GOVERNMENT CONTRACTORS,
The Patent Fencing, Galvanized and Corrugated Iron Works.



HEAD OFFICES AND WORKS-LIVERPOOL.
LONDON BRANCH-35, PARLIAMENT STREET, WESTMINSTER.
GLASGOW BRANCH-Bank of Scotland Buildings, 18, GEORGE SQUARE.

Directors.

SAMUEL FIELD, Esq., Chairman, Richmond House, Anfield, Liverpool.
PETER RYLANDS, Esq., M.P., of Rylands Brothers, Wire Drawers, Warrington, and Chairman of the Warrington Wire Iron Company, Limited.
FRANCIS MORTON, Esq., 35, Parliament Street, Westminster.

General Manager.

W. LLEWELLYN DAVIES, Esq.

Bankers.

Messrs. THE LIVERPOOL UNION BANK.

Solicitors.

Messrs. ELLIS & FIELD, Talbot Chambers, Fenwick Street, Liverpool.

Secretary.

Mr. THOMAS OWEN.

Large quantities for Home or Export specially quoted for, see our "Export Price List" of Galvanized Iron Sheets, &c.

GALVANIZED IRON SHEETS (Plain and Corrugated), PATENT GALVANIZED IRON ROOFING TILES,

GALVANIZED IRON RAILWAY WAGON COVERS, TANKS, CISTERNS, GUTTERS, RIDGE CAPPING,
IRON ROOFS, IRON BUILDINGS, IRON CHURCHES, SHEDDING OF ALL KINDS (SPECIALLY PREPARED TO PLAN) FOR EXPORT.

[Designs and Estimates on application.]

PRESENT PRICES.

TRADE MARK.



BEST BEST GALVANIZED CORRUGATED SHEETS OF F. M. & CO.'S LIMITED "WELL KNOWN" STANDARD QUALITY.
8, 3 in. or 10, 3 in. or 5, 5 in. or 6, 5 in. Corrugations wide.

or = 2 ft. wide = 2 ft. 6 in. wide.	2 ft. 1 in. wide.	2 ft. 6 in. wide when corrugated.	21 to 22.	23 to 24.	25 to 26.	27 to 28.
Gauge..... 12 to 14.	15 to 16.	17 to 18.	19 to 20.	21 to 22.	23 to 24.	25 to 26.
Price per Ton.....£18 10 0	£19 0 0.	£19 10 0	£20 0 0	£22 0 0	£23 10 0	£27 17 6

BEST BEST FLAT GALVANIZED SHEETS. 10s. per Ton less.

Size of our Tiles, 8 ft. by 2 ft. 100 Tiles when laid cover 485 superficial feet, including all laps. These prices for Tiles include Packing Cases. They require exceedingly light and simple Framing, and are laid with the greatest ease by inexperienced hands. A square of 100 superficial feet weighs 90 to 120 lbs. Slates weigh about 100 lbs. per square.	15 to 16.	17 to 18.	19 to 20.	21 to 22.	23 to 24.	25 to 26.	27 to 28.
Price per Ton.....£25 0 0	£27 0 0	£29 5 0	£30 5 0	£32 5 0	£34 5 0	£36 5 0	£38 5 0

BEST BEST PATENT GALVANIZED IRON TILES.

The cheapest, most efficient, and durable Light Iron Roofing offered.

Size of our Tiles, 8 ft. by 2 ft. 100 Tiles when laid cover 485 superficial feet, including all laps. These prices for Tiles include Packing Cases. They require exceedingly light and simple Framing, and are laid with the greatest ease by inexperienced hands. A square of 100 superficial feet weighs 90 to 120 lbs. Slates weigh about 100 lbs. per square.	15 to 16.	17 to 18.	19 to 20.	21 to 22.	23 to 24.	25 to 26.	27 to 28.
Price per Ton.....£25 0 0	£27 0 0	£29 5 0	£30 5 0	£32 5 0	£34 5 0	£36 5 0	£38 5 0

REFERENCE TABLE OF WEIGHTS.

Square feet per Ton about.	Weight per Square foot about.	Square feet per Ton about.	Weight per Square foot about.
No. 12..... 500	No. 12..... 71 ozs.	No. 24..... 1880	No. 24..... 19 ozs.
No. 14..... 500	No. 14..... 60 "	No. 26..... 2170	No. 26..... 16 "
No. 16..... 800	No. 16..... 44 "	No. 28..... 2780	No. 28..... 12 "

BLACK CORRUGATED SHEETS, 12 to 20 Gauge, £11 10s. per Ton; Painted with F. M. & Co.'s COMPOUND METALLIC PAINT, 12 to 20 Gauge, £12 17s. 6d. per Ton.

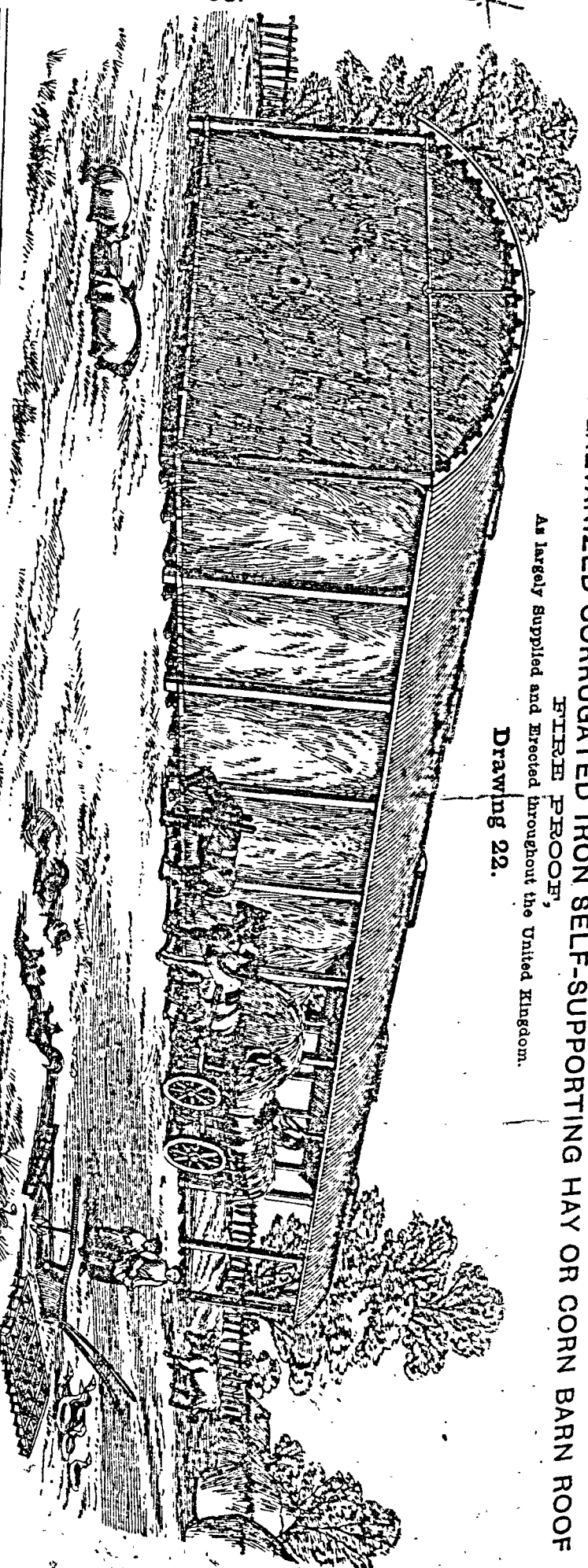
EXTRA CHARGES ON CORRUGATED SHEETS. Sheets 21 to 26 Gauge, over 8 feet long. £1 per Ton. Curving, 16 to 26 Gauge. 15/- per Ton. Punching, 16 to 26 Gauge. 11/- per Ton. 2-inch Corrugations. 10/- per Ton. 3-inch Corrugations. 20/- per Ton.

Galvanized Rivets and Washers, for fixing Corrugated Sheets. 45/- per Cwt. Galvanized Bolts and Nuts for do., 4/6 per Gross.

Galvanized Rivets and Washers, for fixing Corrugated Sheets..... 45/- per Cwt.	Galvanized Ridge Capping. 7 in. flaps. 9 in. flaps. 10 in. flaps. 1/- per lin. foot.	Galvanized One-head Screws, for securing Corrugated Sheets to Timber Framing. 2 1/2 by 3/4. 3 1/2 by 3/4. 4 by 3/4. 4 1/2 by 3/4. 5 by 3/4. 5 1/2 by 3/4. 6 by 3/4. 6 1/2 by 3/4. 7 by 3/4. 7 1/2 by 3/4. 8 by 3/4. 8 1/2 by 3/4. 9 by 3/4. 9 1/2 by 3/4. 10 by 3/4. 10 1/2 by 3/4. 11 by 3/4. 11 1/2 by 3/4. 12 by 3/4. 12 1/2 by 3/4. 13 by 3/4. 13 1/2 by 3/4. 14 by 3/4. 14 1/2 by 3/4. 15 by 3/4. 15 1/2 by 3/4. 16 by 3/4. 16 1/2 by 3/4. 17 by 3/4. 17 1/2 by 3/4. 18 by 3/4. 18 1/2 by 3/4. 19 by 3/4. 19 1/2 by 3/4. 20 by 3/4. 20 1/2 by 3/4. 21 by 3/4. 21 1/2 by 3/4. 22 by 3/4. 22 1/2 by 3/4. 23 by 3/4. 23 1/2 by 3/4. 24 by 3/4. 24 1/2 by 3/4. 25 by 3/4. 25 1/2 by 3/4. 26 by 3/4. 26 1/2 by 3/4. 27 by 3/4. 27 1/2 by 3/4. 28 by 3/4. 28 1/2 by 3/4. 29 by 3/4. 29 1/2 by 3/4. 30 by 3/4. 30 1/2 by 3/4. 31 by 3/4. 31 1/2 by 3/4. 32 by 3/4. 32 1/2 by 3/4. 33 by 3/4. 33 1/2 by 3/4. 34 by 3/4. 34 1/2 by 3/4. 35 by 3/4. 35 1/2 by 3/4. 36 by 3/4. 36 1/2 by 3/4. 37 by 3/4. 37 1/2 by 3/4. 38 by 3/4. 38 1/2 by 3/4. 39 by 3/4. 39 1/2 by 3/4. 40 by 3/4. 40 1/2 by 3/4. 41 by 3/4. 41 1/2 by 3/4. 42 by 3/4. 42 1/2 by 3/4. 43 by 3/4. 43 1/2 by 3/4. 44 by 3/4. 44 1/2 by 3/4. 45 by 3/4. 45 1/2 by 3/4. 46 by 3/4. 46 1/2 by 3/4. 47 by 3/4. 47 1/2 by 3/4. 48 by 3/4. 48 1/2 by 3/4. 49 by 3/4. 49 1/2 by 3/4. 50 by 3/4. 50 1/2 by 3/4. 51 by 3/4. 51 1/2 by 3/4. 52 by 3/4. 52 1/2 by 3/4. 53 by 3/4. 53 1/2 by 3/4. 54 by 3/4. 54 1/2 by 3/4. 55 by 3/4. 55 1/2 by 3/4. 56 by 3/4. 56 1/2 by 3/4. 57 by 3/4. 57 1/2 by 3/4. 58 by 3/4. 58 1/2 by 3/4. 59 by 3/4. 59 1/2 by 3/4. 60 by 3/4. 60 1/2 by 3/4. 61 by 3/4. 61 1/2 by 3/4. 62 by 3/4. 62 1/2 by 3/4. 63 by 3/4. 63 1/2 by 3/4. 64 by 3/4. 64 1/2 by 3/4. 65 by 3/4. 65 1/2 by 3/4. 66 by 3/4. 66 1/2 by 3/4. 67 by 3/4. 67 1/2 by 3/4. 68 by 3/4. 68 1/2 by 3/4. 69 by 3/4. 69 1/2 by 3/4. 70 by 3/4. 70 1/2 by 3/4. 71 by 3/4. 71 1/2 by 3/4. 72 by 3/4. 72 1/2 by 3/4. 73 by 3/4. 73 1/2 by 3/4. 74 by 3/4. 74 1/2 by 3/4. 75 by 3/4. 75 1/2 by 3/4. 76 by 3/4. 76 1/2 by 3/4. 77 by 3/4. 77 1/2 by 3/4. 78 by 3/4. 78 1/2 by 3/4. 79 by 3/4. 79 1/2 by 3/4. 80 by 3/4. 80 1/2 by 3/4. 81 by 3/4. 81 1/2 by 3/4. 82 by 3/4. 82 1/2 by 3/4. 83 by 3/4. 83 1/2 by 3/4. 84 by 3/4. 84 1/2 by 3/4. 85 by 3/4. 85 1/2 by 3/4. 86 by 3/4. 86 1/2 by 3/4. 87 by 3/4. 87 1/2 by 3/4. 88 by 3/4. 88 1/2 by 3/4. 89 by 3/4. 89 1/2 by 3/4. 90 by 3/4. 90 1/2 by 3/4. 91 by 3/4. 91 1/2 by 3/4. 92 by 3/4. 92 1/2 by 3/4. 93 by 3/4. 93 1/2 by 3/4. 94 by 3/4. 94 1/2 by 3/4. 95 by 3/4. 95 1/2 by 3/4. 96 by 3/4. 96 1/2 by 3/4. 97 by 3/4. 97 1/2 by 3/4. 98 by 3/4. 98 1/2 by 3/4. 99 by 3/4. 99 1/2 by 3/4. 100 by 3/4. 100 1/2 by 3/4. 101 by 3/4. 101 1/2 by 3/4. 102 by 3/4. 102 1/2 by 3/4. 103 by 3/4. 103 1/2 by 3/4. 104 by 3/4. 104 1/2 by 3/4. 105 by 3/4. 105 1/2 by 3/4. 106 by 3/4. 106 1/2 by 3/4. 107 by 3/4. 107 1/2 by 3/4. 108 by 3/4. 108 1/2 by 3/4. 109 by 3/4. 109 1/2 by 3/4. 110 by 3/4. 110 1/2 by 3/4. 111 by 3/4. 111 1/2 by 3/4. 112 by 3/4. 112 1/2 by 3/4. 113 by 3/4. 113 1/2 by 3/4. 114 by 3/4. 114 1/2 by 3/4. 115 by 3/4. 115 1/2 by 3/4. 116 by 3/4. 116 1/2 by 3/4. 117 by 3/4. 117 1/2 by 3/4. 118 by 3/4. 118 1/2 by 3/4. 119 by 3/4. 119 1/2 by 3/4. 120 by 3/4. 120 1/2 by 3/4. 121 by 3/4. 121 1/2 by 3/4. 122 by 3/4. 122 1/2 by 3/4. 123 by 3/4. 123 1/2 by 3/4. 124 by 3/4. 124 1/2 by 3/4. 125 by 3/4. 125 1/2 by 3/4. 126 by 3/4. 126 1/2 by 3/4. 127 by 3/4. 127 1/2 by 3/4. 128 by 3/4. 128 1/2 by 3/4. 129 by 3/4. 129 1/2 by 3/4. 130 by 3/4. 130 1/2 by 3/4. 131 by 3/4. 131 1/2 by 3/4. 132 by 3/4. 132 1/2 by 3/4. 133 by 3/4. 133 1/2 by 3/4. 134 by 3/4. 134 1/2 by 3/4. 135 by 3/4. 135 1/2 by 3/4. 136 by 3/4. 136 1/2 by 3/4. 137 by 3/4. 137 1/2 by 3/4. 138 by 3/4. 138 1/2 by 3/4. 139 by 3/4. 139 1/2 by 3/4. 140 by 3/4. 140 1/2 by 3/4. 141 by 3/4. 141 1/2 by 3/4. 142 by 3/4. 142 1/2 by 3/4. 143 by 3/4. 143 1/2 by 3/4. 144 by 3/4. 144 1/2 by 3/4. 145 by 3/4. 145 1/2 by 3/4. 146 by 3/4. 146 1/2 by 3/4. 147 by 3/4. 147 1/2 by 3/4. 148 by 3/4. 148 1/2 by 3/4. 149 by 3/4. 149 1/2 by 3/4. 150 by 3/4. 150 1/2 by 3/4. 151 by 3/4. 151 1/2 by 3/4. 152 by 3/4. 152 1/2 by 3/4. 153 by 3/4. 153 1/2 by 3/4. 154 by 3/4. 154 1/2 by 3/4. 155 by 3/4. 155 1/2 by 3/4. 156 by 3/4. 156 1/2 by 3/4. 157 by 3/4. 157 1/2 by 3/4. 158 by 3/4. 158 1/2 by 3/4. 159 by 3/4. 159 1/2 by 3/4. 160 by 3/4. 160 1/2 by 3/4. 161 by 3/4. 161 1/2 by 3/4. 162 by 3/4. 162 1/2 by 3/4. 163 by 3/4. 163 1/2 by 3/4. 164 by 3/4. 164 1/2 by 3/4. 165 by 3/4. 165 1/2 by 3/4. 166 by 3/4. 166 1/2 by 3/4. 167 by 3/4. 167 1/2 by 3/4. 168 by 3/4. 168 1/2 by 3/4. 169 by 3/4. 169 1/2 by 3/4. 170 by 3/4. 170 1/2 by 3/4. 171 by 3/4. 171 1/2 by 3/4. 172 by 3/4. 172 1/2 by 3/4. 173 by 3/4. 173 1/2 by 3/4. 174 by 3/4. 174 1/2 by 3/4. 175 by 3/4. 175 1/2 by 3/4. 176 by 3/4. 176 1/2 by 3/4. 177 by 3/4. 177 1/2 by 3/4. 178 by 3/4. 178 1/2 by 3/4. 179 by 3/4. 179 1/2 by 3/4. 180 by 3/4. 180 1/2 by 3/4. 181 by 3/4. 181 1/2 by 3/4. 182 by 3/4. 182 1/2 by 3/4. 183 by 3/4. 183 1/2 by 3/4. 184 by 3/4. 184 1/2 by 3/4. 185 by 3/4. 185 1/2 by 3/4. 186 by 3/4. 186 1/2 by 3/4. 187 by 3/4. 187 1/2 by 3/4. 188 by 3/4. 188 1/2 by 3/4. 189 by 3/4. 189 1/2 by 3/4. 190 by 3/4. 190 1/2 by 3/4. 191 by 3/4. 191 1/2 by 3/4. 192 by 3/4. 192 1/2 by 3/4. 193 by 3/4. 193 1/2 by 3/4. 194 by 3/4. 194 1/2 by 3/4. 195 by 3/4. 195 1/2 by 3/4. 196 by 3/4. 196 1/2 by 3/4. 197 by 3/4. 197 1/2 by 3/4. 198 by 3/4. 198 1/2 by 3/4. 199 by 3/4. 199 1/2 by 3/4. 200 by 3/4. 200 1/2 by 3/4. 201 by 3/4. 201 1/2 by 3/4. 202 by 3/4. 202 1/2 by 3/4. 203 by 3/4. 203 1/2 by 3/4. 204 by 3/4. 204 1/2 by 3/4. 205 by 3/4. 205 1/2 by 3/4. 206 by 3/4. 206 1/2 by 3/4. 207 by 3/4. 207 1/2 by 3/4. 208 by 3/4. 208 1/2 by 3/4. 209 by 3/4. 209 1/2 by 3/4. 210 by 3/4. 210 1/2 by 3/4. 211 by 3/4. 211 1/2 by 3/4. 212 by 3/4. 212 1/2 by 3/4. 213 by 3/4. 213 1/2 by 3/4. 214 by 3/4. 214 1/2 by 3/4. 215 by 3/4. 215 1/2 by 3/4. 216 by 3/4. 216 1/2 by 3/4. 217 by 3/4. 217 1/2 by 3/4. 218 by 3/4. 218 1/2 by 3/4. 219 by 3/4. 219 1/2 by 3/4. 220 by 3/4. 220 1/2 by 3/4. 221 by 3/4. 221 1/2 by 3/4. 222 by 3/4. 222 1/2 by 3/4. 223 by 3/4. 223 1/2 by 3/4. 224 by 3/4. 224 1/2 by 3/4. 225 by 3/4. 225 1/2 by 3/4. 226 by 3/4. 226 1/2 by 3/4. 227 by 3/4. 227 1/2 by 3/4. 228 by 3/4. 228 1/2 by 3/4. 229 by 3/4. 229 1/2 by 3/4. 230 by 3/4. 230 1/2 by 3/4. 231 by 3/4. 231 1/2 by 3/4. 232 by 3/4. 232 1/2 by 3/4. 233 by 3/4. 233 1/2 by 3/4. 234 by 3/4. 234 1/2 by 3/4. 235 by 3/4. 235 1/2 by 3/4. 236 by 3/4. 236 1/2 by 3/4. 237 by 3/4. 237 1/2 by 3/4. 238 by 3/4. 238 1/2 by 3/4. 239 by 3/4. 239 1/2 by 3/4. 240 by 3/4. 240 1/2 by 3/4. 241 by 3/4. 241 1/2 by 3/4. 242 by 3/4. 242 1/2 by 3/4. 243 by 3/4. 243 1/2 by 3/4. 244 by 3/4. 244 1/2 by 3/4. 245 by 3/4. 245 1/2 by 3/4. 246 by 3/4. 246 1/2 by 3/4. 247 by 3/4. 247 1/2 by 3/4. 248 by 3/4. 248 1/2 by 3/4. 249 by 3/4. 249 1/2 by 3/4. 250 by 3/4. 250 1/2 by 3/4. 251 by 3/4. 251 1/2 by 3/4. 252 by 3/4. 252 1/2 by 3/4. 253 by 3/4. 253 1/2 by 3/4. 254 by 3/4. 254 1/2 by 3/4. 255 by 3/4. 255 1/2 by 3/4. 256 by 3/4. 256 1/2 by 3/4. 257 by 3/4. 257 1/2 by 3/4. 258 by 3/4. 258 1/2 by 3/4. 259 by 3/4. 259 1/2 by 3/4. 260 by 3/4. 260 1/2 by 3/4. 261 by 3/4. 261 1/2 by 3/4. 262 by 3/4. 262 1/2 by 3/4. 263 by 3/4. 263 1/2 by 3/4. 264 by 3/4. 264 1/2 by 3/4. 265 by 3/4. 265 1/2 by 3/4. 266 by 3/4. 266 1/2 by 3/4. 267 by 3/4. 267 1/2 by 3/4. 268 by 3/4. 268 1/2 by 3/4. 269 by 3/4. 269 1/2 by 3/4. 270 by 3/4. 270 1/2 by 3/4. 271 by 3/4. 271 1/2 by 3/4. 272 by 3/4. 272 1/2 by 3/4. 273 by 3/4. 273 1/2 by 3/4. 274 by 3/4. 274 1/2 by 3/4. 275 by 3/4. 275 1/2 by 3/4. 276 by 3/4. 276 1/2 by 3/4. 277 by 3/4. 277 1/2 by 3/4. 278 by 3/4. 278 1/2 by 3/4. 279 by 3/4. 279 1/2 by 3/4. 280 by 3/4. 280 1/2 by 3/4. 281 by 3/4. 281 1/2 by 3/4. 282 by 3/4. 282 1/2 by 3/4. 283 by 3/4. 283 1/2 by 3/4. 284 by 3/4. 284 1/2 by 3/4. 285 by 3/4. 285 1/2 by 3/4. 286 by 3/4. 286 1/2 by 3/4. 287 by 3/4. 287 1/2 by 3/4. 288 by 3/4. 288 1/2 by 3/4. 289 by 3/4. 289 1/2 by 3/4. 290 by 3/4. 290 1/2 by 3/4. 291 by 3/4. 291 1/2 by 3/4. 292 by 3/4. 292 1/2 by 3/4. 293 by 3/4. 293 1/2 by 3/4. 294 by 3/4. 294 1/2 by 3/4. 295 by 3/4. 295 1/2 by 3/4. 296 by 3/4. 296 1/2 by 3/4. 297 by 3/4. 297 1/2 by 3/4. 298 by 3/4. 298 1/2 by 3/4. 299 by 3/4. 299 1/2 by 3/4. 300 by 3/4. 300 1/2 by 3/4. 301 by 3/4. 301 1/2 by 3/4. 302 by 3/4. 302 1/2 by 3/4. 303 by 3/4. 303 1/2 by 3/4. 304 by 3/4. 304 1/2 by 3/4. 305 by 3/4. 305 1/2 by 3/4. 306 by 3/4. 306 1/2 by 3/4. 307 by 3/4. 307 1/2 by 3/4. 308 by 3/4. 308 1/2 by 3/4. 309 by 3/4. 309 1/2 by 3/4. 310 by 3/4. 310 1/2 by 3/4. 311 by 3/4. 311 1/2 by 3/4. 312 by 3/4. 312 1/2 by 3/4. 313 by 3/4. 313 1/2 by 3/4. 314 by 3/4. 314 1/2 by 3/4. 315 by 3/4. 315 1/2 by 3/4. 316 by 3/4. 316 1/2 by 3/4. 317 by 3/4. 317 1/2 by 3/4. 318 by 3/4. 318 1/2 by 3/4. 319 by 3/4. 319 1/2 by 3/4. 320 by 3/4. 320 1/2 by 3/4. 321 by 3/4. 321 1/2 by 3/4. 322 by 3/4. 322 1/2 by 3/4. 323 by 3/4. 323 1/2 by 3/4. 324 by 3/4. 324 1/2 by 3/4. 325 by 3/4. 325 1/2 by 3/4. 326 by 3/4. 326 1/2 by 3/4. 327 by 3/4. 327 1/2 by 3/4. 328 by 3/4. 328 1/2 by 3/4. 329 by 3/4. 329 1/2 by 3/4. 330 by 3/4. 330 1/2 by 3/4. 331 by 3/4. 331 1/2 by 3/4. 332 by 3/4. 332 1/2 by 3/4. 333 by 3/4. 333 1/2 by 3/4. 334 by 3/4. 334 1/2 by 3/4. 335 by 3/4. 335 1/2 by 3/4. 336 by 3/4. 336 1/2 by 3/4. 337 by 3/4. 337 1/2 by 3/4. 338 by 3/4. 338 1/2 by 3/4. 339 by 3/4. 339 1/2 by 3/4. 340 by 3/4. 340 1/2 by 3/4. 341 by 3/4. 341 1/2 by 3/4. 342 by 3/4. 342 1/2 by 3/4. 343 by 3/4. 343 1/2 by 3/4. 344 by 3/4. 344 1/2 by 3/4. 345 by 3/4. 345 1/2 by 3/4. 346 by 3/4. 346 1/2 by 3/4. 347 by 3/4. 347 1/2 by 3/4. 348 by 3/4. 348 1/2 by 3/4. 349 by 3/4. 349 1/2 by 3/4. 350 by 3/4. 350 1/2 by 3/4. 351 by 3/4. 351 1/2 by 3/4. 352 by 3/4. 352 1/2 by 3/4. 353 by 3/4. 353 1/2 by 3/4. 354 by 3/4. 354 1/2 by 3/4. 355 by 3/4. 355 1/2 by 3/4. 356 by 3/4. 356 1/2 by 3/4. 357 by 3/4. 357 1/2 by 3/4. 358 by 3/4. 358 1/2 by 3/4. 359 by 3/4. 359 1/2 by 3/4. 360 by 3/4. 360 1/2 by 3/4. 361 by 3/4. 361 1/2 by 3/4. 362 by 3/4. 362 1/2 by 3/4. 363 by 3/4. 363 1/2 by 3/4. 364 by 3/4. 364 1/2 by 3/4. 365 by 3/4. 365 1/2 by 3/4. 366 by 3/4. 366 1/2 by 3/4. 367 by 3/4. 367 1/2 by 3/4. 368 by 3/4. 368 1/2 by 3/4. 369 by 3/4. 369 1/2 by 3/4. 370 by 3/4. 370 1/2 by 3/4. 371 by 3/4. 371 1/2 by 3/4. 372 by 3/4. 372 1/2 by 3/4. 373 by 3/4. 373 1/2 by 3/4. 374 by 3/4. 374 1/2 by 3/4. 375 by 3/4. 375 1/2 by 3/4. 376 by 3/4. 376 1/2 by 3/4. 377 by 3/4. 377 1/2 by 3/4. 378 by 3/4. 378 1/2 by 3/4. 379 by 3/4. 379 1/2 by 3/4. 380 by 3/4. 380 1/2 by 3/4. 381 by 3/4. 381 1/2 by 3/4. 382 by 3/4. 382 1/2 by 3/4. 383 by 3/4. 383 1/2 by 3/4. 384 by 3/4. 384 1/2 by 3/4. 385 by 3/4. 385 1/2 by 3/4. 386 by 3/4. 386 1/2 by 3/4. 387 by 3/4. 387 1/2 by 3/4. 388 by 3/4. 388 1/2 by 3/4. 389 by 3/4. 389 1/2 by 3/4. 390 by 3/4. 390 1/2 by 3/4. 391 by 3/4. 391 1/2 by 3/4. 392 by 3/4. 392 1/2 by 3/4. 393 by 3/4. 393 1/2 by 3/4.
--	--	---

(41)
F. M. & CO.'S SINGLE SPAN GALVANIZED CORRUGATED IRON SELF-SUPPORTING HAY OR CORN BARN ROOF

As largely supplied and erected throughout the United Kingdom.
FIRE PROOF,
Drawing 22.

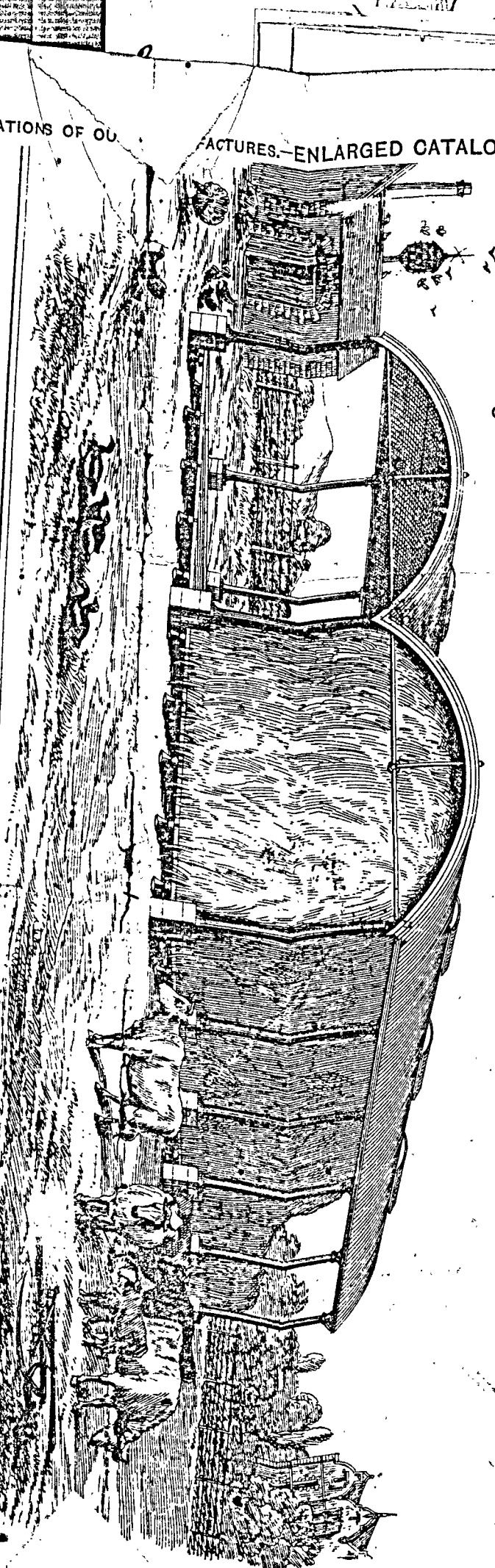


PRICE—of Roof, 100 feet long by 18 feet wide (outside dimensions), delivered at nearest Railway Station, and erected complete by our men on proprietor's wood, wall plates and uprights, fixed ready to receive our roof, £70 nett.
Ornamental Frieze Boards, if desired, 1s. 6d. per foot run, extra, fixed—galvanized iron leaves gutters and Fall Pipes, 6d. per foot run, extra, fixed.

EXACT ESTIMATES FOR ANY OTHER SIZE ON APPLICATION.

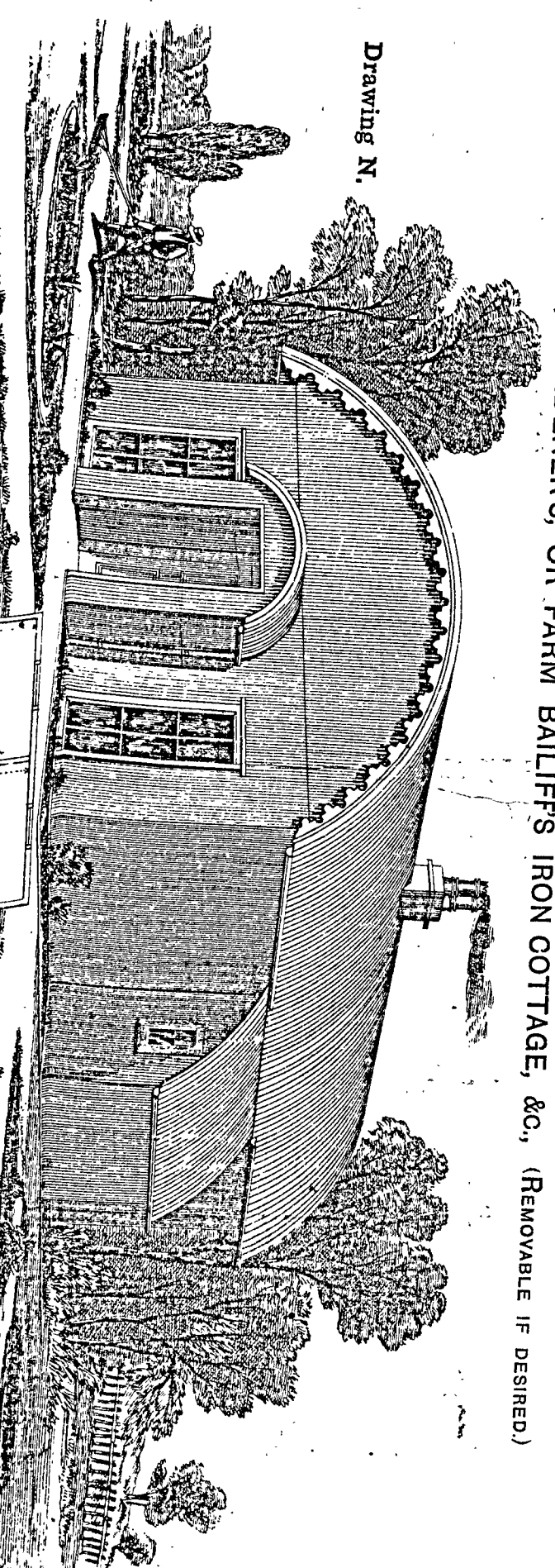
F. M. & CO.'S DOUBLE SPAN GALVANIZED CORRUGATED IRON SELF-SUPPORTING CORN OR HAY BARN ROOF
Drawing 23.

FIRE PROOF, as ERECTED for His Grace the DUKE OF LEINSTER.



GAMEKEEPERS, GARDENERS, OR FARM BAILIFFS IRON COTTAGE, &C., (REMOVABLE IF DESIRED.)
Drawing N.

Special Estimates for our Iron Roofs, fixed complete on cast or wrought-iron columns, on receipt of particulars, viz., length and width of the ground to be covered.
For Approximate Prices see Page 1 of this Sheet.



These Iron Buildings are easy of conveyance and erection, in districts where cartage and labour are expensive; and, as constructed by FRANCIS MORTON & CO., possess all the comfort of Stone or Brick Buildings.

PRICE—With Five Rooms and Entrance Porch, erected complete, £120.
Prepared, ready for Erection, and delivered alongside Ship in Liverpool, £110.

Our only Correct Address is—FRANCIS MORTON & COMPANY, LIMITED, MAYLOR ST., LIVERPOOL.

ESTABLISHED ABOVE QUARTER OF A CENTURY.
London Branch—35, Parliament St. Westminster.
Glasgow Branch—Bank of Scotland Buildings, 18, George Square.

Mr. 80037/100/20
of 22/5/10 1/2 1/4
50-200-20-1-1/2 1/4

P. W. 1874 Dept.
P. W. 1874 Dept.
No: 8037

From

The Secy to Govt.
Mil. Dept.

Dated 22 Dec. 1874
Recd. 22 Dec. 1874

G. L.

Transferring letter
from the Dr. Master
General relative to
the question of Iron
Stabling for Horses
of the Mounted Branch
es of the army.

+ 10 Dec 1874
Ob. No: 205. 25-1-75.

Ob. 31

Ob. 1-75

Quarter Master General's Office
Fort St. George 5th January 1875.

N^o 75.

From

Colonel H. O'Connell.
Deputy Quarter Master General.

To

Colonel A. C. Silver
Secretary to Government
Military Department

Sir,

Transferred to the
Public Store
Letter 52-1274

In continuation of this Office Letter
N^o 8690 dated 21st December 1874, I have the honor,
by order, to annex copy of a letter from the Inspecting
Veterinary Surgeon Bombay, reporting favourably
on the double iron sheds for stables, recently erected
at Kikkee.

I have the honor to be,

Sir,

Your obedient servant,

H. H. Torrance Colonel,
Deputy Q. M. General.

Copy.

Wm. Wms.
J. H. Defto

Warren's Buildings
Stables.

N^o 99.

Transferred to
the Public Works Department
in continuation of docket
dated 22^d Dec: 1874.

For St. George
8th Jan 1875: 3

Alliceerled
Secretary to Govt.

Military 1875 Department

No. 55

From

The Quarter Master General

To

The Secretary to Government
Military Department

Dated 5th January
Recd 13

No. 78. Encl

Submit Copy of a
letter from the Inspry Vky
Singapore & Bombay Reporting
favorably on the double iron
beds for stables recently erected
at turkep.

Encl

W. H. order



Proceedings of the Madras Govt

Read the following

From the Quarter Master General
to the Mily. Dept.

(M. G. No. 8690 of 21 Dec 74)

Do (M. G. No. 45 of 8 Jan 75)

269

4

Ordered that the
copy of the plan of
stabling erected at Kiche
be supplied to the
District Engineer
Chingleput, for prepa-
-ration, in communi-
-cation with the General
Superintendent of Road
Dro Kohoko, and the
Local Military authori-
-ties, of estimates for
such stabling as may
be

be required at Lt. General's
Mount in supervision
of estimates for stabling
on the standard plan
already sanctioned.

G.W.

To the S.E. Chingleput with Plans
S.E. Presidency
Military Dept
Sept 26/1/75.

List of Stables sanctioned.

		Estimated Rs.	
Chingleput	At Hasbunder Stables for the horses of 2 Field Batteries of Royal Artillery	30,120	L.O. No 1892 of 28 June 1867 - w arrives let called for in No 2463 A of 18 November 1868.
Bangalore	Do for the R.A. at the Race Course Bangalore (2 Batteries)	42,920	L.O. No 3540 of 13 Nov 1868
Do	Do for Horse Artillery	83,610	— — — 2920 of 14 Sept
Trichinopoly	Trichinopoly Stables for the Battery of Artillery	17,500	L.O. No 398 of 1 July 1866, Revised let called for in L.O. No 3780 of 30 Dec 1868.

P. H. Dept.
 Proceedings of the Madras Government
 Read the following.

From

The Secy. Mr. Gair } (N.R. No 8690d/ 21st Decr/76)
 thro: Mily Dept }

Ordered that copies
 of the Plan of Stabling
 erected at Rerked be
 lithographed, and sup-
 plied to the District
 Engineers of Bellary,
 Chingleput and Bangalore
 for preparation, in con-
 munication with the
 General Superintendent
 of Govt. Workshops, and
 the Local Military au-
 thorities, of estimates for
 such Stabling as may
 be prepared in a
 much shorter time

Mr. Gair calling for a
 comparative estimate for
 the Stabling at the moment
 & merely order the Secy
 and the proceeded with
 the or can judge of the
 relative expenses
 7/1

A single Estimate
 for the present might
 be prepared in a
 much shorter time

Bellamy, J. P. Moore
he required a ~~land~~
as ~~mount~~ & ~~haugaboe~~
stations, and in super-
cession of letimials for
stabling on the standard
plan already sanctioned.

Amv

than the 3 - and
I fancy the additio
of carriage would
make it answer for
all. Is.

127-8037

Govt. of Madras
PUBLIC WORKS.

To

★
Mr. Superintendent
Chingleput

Dated

Recd.

Encl. 5

25 Jan 5 No. 209

Nos. 431-433

Stabling at Perac

A copy of the plan
of stabling ordered to
be applied to the
Mr. S. S. Chingleput
with certain instructions.