## PRICE LIST

OF

# MUNCHERJI DORABJI & Co.,

GENERAL ENGINEERS,

Contractors, Timber and Iron Merchants,

33, GILDER STREET,

BOMBAY

606255



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1891.

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## INDEX TO TIMBER DEPARTMENT.

					P	AG <b>E</b>			PAG
Bamboo	s	•••	•••	•••	•••	16	Junglewood Cornice	•••	1
Battens,	Bamboo	•••	•••	•••	•••	16	Logs, Moulmein Teak	•••	]
Do.,	Teak	•••	•••	•••	•••	16	Mangalore Tiles	•••	1
Benteak	•••	•••		•••	•••	16	Mats, Bamboo	•••	1
Boards o	cut to order	•••	•••	•••	•••	15	Names of principal woods	•••	1
Carriage	of Timbe	r, Info	mation	for,	over		Preface	•••	1 &
G. I. I	P. and other	Railway	/s	•••	•••	.21	Railway Charges	•••	2
Ceiling,	Dealwood	•••	•••	•••	•••	16	Roofs, Notes on	•••	4 &
Do.,	Teakwood	•••	•••	•••	•••	16	Scantlings cut to order	•••	1
Cornice,	Junglewood		•••	•••	•••	16	Shutters, Door and Window, Teal	٠	1
Do.	Teakwood	•••	•••	•••	•••	16	Singapur Wood	••	1
Cost of I	Building	•••	•••	•••	6	9	Sleepers, Railway, Teak	•••	1
Dealwoo	d		•••	•••	•••	16	Strength of Teakwood	•••	1
Do.,	Ceiling	•••	•••	•••	•••	16	Teakwood, Special	•••	1
Doors ar	nd Windows	•••	•••	•••	•••	17	Trusses, Notes on	•••	•••
Frames,	Door and V	Vindow,	Teak	•••	•	18	Ventilator	•••	1
Freight I	Rates	•••	•••	•••	•••	22	Windows and Doors	•••	1
Tunglawa						18			

## INDEX TO IRON DEPARTMENT.

		Α								
		A		1	PAGE					
Agricultural an	d Horti	mlineal T	oole		27	Bridges			•••	
Alphabets, Stee	a mom			•••	37	Brushes, all de	ecrintians	•••	•••	
Anchors		•• •••	•••	•••	37	Buckets	•	•••	•••	
Angle Iron, Lo			***		48	Budding Kniv	••• ••• 40			
			•	•••	26	Builders' Requ		•••	•••	
		••	. ***	•••	37	Dunders Requ	iisites	•••	•••	
		•• •••		•••	- (		C	•		
Augers, Screw		•• •••	•••	•••	28		•	,		
Axes, Felling	•••	•• •••	•••	•••	28	Cabinet Make	rs' Requisite	e	•••	
		D				43 111	••• • •••	•••	•••	
		В			- 1	Cans, Oil	•••	•••	•••	
Dalamasa					40	Do., Wateri	ng		₩.	
73		•• •••	•••	•••	43	Canvas	•••	•••	•••	
		•• •••	•••	•••	29	Do. Hose	•••		•••	
Baskets, Cane		•• •••	•••	•••	37	Carpenters' an			•••	
	-	•• •••	•••	•••	43	Carts, Conserv	•		•••	
Beams, Rolled		•• . •••	•••	•••	56	Cast-Iron Pipe	•		•••	
Do, do	., Str	ength of	•••	•••	58	Cements, Gene				
Bears, Punching	g		•••	•••	26	Chains, Brass		_	•••	
Beaters	•••		•••	•••	29			•••	•••	
Bells, Brass			•••		37	Do., Iron Do., Stren		iaht of	•••	
Do. for Ships	and Sta	tions	•••		43			-	•••	
Bellows	•••			•••	26	Chatwin's Tap		•••	•••	
Belting, India-H				•••	42	Chisels, Steel		•••	•••	
Do., Leathe			•••	•••	42	Do., Carper	nters'	•••	•••	
011 1			•••	•••	36	Do., Smiths	s'	•••	•••	
***** * *	•••				27	Clay, Fire	•••	•••	•••	
D*			•••	•••	37	Clawed Hamm	ers	•••	•••	
Blacksmiths' To	··· ·		•••	•••	26	Clips for Roofi	ng	•••	•••	
Blasting Fuse			• • *	•••	29	Cloth, Emery	•••	•••		
			•••	•••	29	Coal Pitch	•••	•••	•••	
Do. Needles	-		***	•••		Cocks, all desc	riptions	•••	•••	
Do. Powder			•••	•••	29	Conductors, Li	ightning		***	
Do. Spoons			•••	•••	29	Copper Bars	•••	•••	•••	•
Blocks, Scribing		• •••	•••	•••	25	Do. Sheets		•••	•••	
Do., Cross	 7- T):g		•••	•••	26	Do. Wire		•••	•••	
Do., Weston			•••	••	38	Corrugated Iro		•••	•••	
Do., Moore's		)	•••	•••	39	Couplings, Ho	se	•••	•••	
Do., Pulley .			•••	• • •	39	Crab Winches		•••	•••	
Do., Tangye		t Kope	•••	•••	39	Cramps, Joine		•••	•••	
Blow-off Cocks			•••	•••	36	Cross cut Saws				
Boiled Linseed	Oil		• ••	•••	47	Crowbars		•••	•••	
	•••		•••	•••	33	0 111	•••	•••	•••	
Boilermakers' <b>T</b>	Cools		•••	• • •	26	Crucibles.		•••	•••	
Bolts and Nuts			•••	•••	43	Cupboard Loc	κs, αc	D-11-	1 37	
7.	•••		•••	•••	37	Curved Galvar				
Dan to a	•••		•••	•••	37	Cylindrical Sta	ındard Gau	ges	•••	
Braces, Ratchet	t			•••	25		-			•
Do., with Bit			•••		28			)		
*	-		•••	•••	44	Dammer				
T		••••	•••	•••	52	Delivery Hose	•••	•••	•••	
Dalaba Elma	•••		•••	•••	37	Dies and Taps		•••	•••	
Dricks, Fire			•••		37 )	Dies and Tabs		•••		

					AGE	1	,	PAGE
Disinfecing Powder Door Bolts, Handles,	Hinge	Looka	e de c	29 &	38 46	J		
Drills, Archimedian	_	-		•••	28	Jacks, Haley's (Iron Body)	•••	39
Do., Contractors'	•••	•••	•••	•••	29	Do., Lifting and Traversing	•••	39
I'rivers, Screw	•••	•••	•••	•••	28	Jimcrows, Plate-layers	•••	29
Duplex Punches	•••	•••	•••	•••	26	Jumpers	•••	46
	•	•••	•••	••		Κ		
	E	,				Kava Scraw		25
Emery Cloth	•••	•••	•••	•••	38	Knives, Budding and Pruning	•••	27
Do. Flour	•••	•••	•••	***	38			
Do. Powder	•••	•••	•••	•••	38	L		
Engineering Tools	•••	•••	•••	•••	25	Ladles for Lead	•••	38
Extractors, Nail	•••	•••	•••	•••	28	Lamps, Hurricane, Anchor, &c	•••	38
	F					Do., Hand, Signal	•••	29
	•				•-	Lead Sheets	•••	49
Feeders, Oil, with Pa	tent Spr	ing	•••	•••	25	Levels, Spirit	•••	25
Felt	•••	•••	•••	•••	38	Locks, all descriptions		46
Figures, Steel	•••	•••	•••	***	38	Lubricators	38 &	<b>¥ 4</b> 6
Files, all descriptions	•••	•••	•••	•••	44	)· M		
Fitters' Tools	•••	•••	•••	•••	25	Manilla Danes		42
Fittings for Roofs	•••	•••	•••	•••	52 26	Mason's Bars	•••	29
Forges, Portable	•••	•••	•••	•••	27	Metal Babbits	• • •	38
Forks, Gardening	•••	•••	•••	•••	21	Do. Rods	•••	46
	G					Mortar Pans	•••	29
Galvanized Plain She					<b>52</b>	Mortice Locks	•••	54
Do. Roof Fitt		ite &c	•••	•••	52 52	Mowers, Lawn	•••	27
Garden Tools	•			•••	27	N		
Gauges, Birmingham	Wire	•••	•••	25 &		1		
		•••	•••		25	Nails, all descriptions	•••	47
Do., Steam Press		•••	•••	•••	45	Needles, Blasting	•••	29
Do., Glasses	•••	•••	•••	•••	45	Netting, Wire	•••	38
Do., Vacuum	•••	•••	•••	•••	45	Nuts, Hexagon and Square Tapped	•••	47
Gimlets	•••	•••	•••	•••	28	0		
Girders				•••	<b>55</b>	Oils, all descriptions		47
Do., Cast-Iron, B	reaking	weight	of	•••	58	Do. Paints	•••	47
Gauges	•••	•••		•••	28		•••	
Grindstones	•••	•••	•••	•••	38	. P		
•	Н					Packing, Asbestos, Tuck's patent, &c.	•••	47
TT Tittam'	• • •				O.E	Padlocks	***	46
Hammers, Fitters' Do., Hand, Ri		Sladas	fro.	•••	$\begin{array}{c} 25 \\ 26 \end{array}$	Paint Brushes		38
	e' South	ia Tanl	cia &	•••	29	Paints, Moist and Dry	47 &	
Do., Platelayer Do., Carpenter					28	Pans, Mortar	, •••	29
		•••	•••	•••	38	Pickaxes	•••	29
Handles, Ash Handspikes, Ash	•••	•••	•••	•••	29	Pipes, Cast-Iron	• • •	31 32
Hinges, Brass and Ir	on.	•••	•••	•••	45	Do, Wrought-Iron Do., Lead	•••	33
Hoes, Garden	•	•••	•••	•••	27	Do Iron	•••	34
Hooks, Brass		***	•••	•••	45	Do Dain Water	•••	33
Hose Couplings	•••	•••		4-1	37	Do Hous	•••	45
Do., Suction and D		•••	•••	•••	45	Pit Saws	•••	28
					_	Pitch	29.	k 38
	1				٠	Planes, Carpenters' and Joiners'		28
India-rubber Belting	•••				42	Pliers, Carpenters'	•••	28
Do. Sheets	•••	•••	•••	• • • •	49	Ploughs, Agricultural	•••	27
Irons, Smiths' Fire	•••	•••	•••		26	Portland Cement		41.
•								

		1	PAGE	PAGE	
Powder, Blasting			29	Snaps, Steel 26	
Do., Disinfecting	•••	29 &	38	Solder 29	
Da Emani	•••		38	Spades, Garden 27	
Powrahs	•••	•••	29	Spanners, Clyburn's 25	
Pruning Knives	•••	•••	27	Spoons for Blasting 29	
Do. Saw and Hook	•••	•••	27	Squares, Carpenters' 28	
Pulleys, Blocks	•••	•••	<b>3</b> 9	Do., Steel 25	
Do. for Punkahs	•••	•••	39	Steam Gauges 45	
Do. Split	• •••	•••	38	Stone-breakers' Hammers 29	
Pumps, Holburn	•••		27	Stop-cocks, Brass 35 & 36	
Do. Contractors'	•••	•••	37	Straight Edges, Steel 25	
Punches and Dies, spare sets	•••	•••	26	Swages 26	
Do, Centre	•••	•••	25	_	
Do., Smiths'	•••	•••	26	T	
٠ ۾				Tamping Rade	
Q				Tamping Rods 29 Tangye's Self-sustaining Blocks 39	
Quarry Bars			29	Tonks Wrought and Cast Iron 51	
·	***	•••		Trans and Dies	
R				To: 00	
				Tongs, Smiths' or Rivetters' 29	
Rakes, Garden	•••	•••	27	Do. for Gas Pipes 25	
Ratchet Braces	•••	•••	25	Tools, Agricultural 27	
Raw Linseed Oil	•••	•••	47	Do., Blacksmiths' 26	
Resin	•••	•••	29	Do., Rivetter's 26	
Rim Locks	•••	•••	54	Do., Carpenters' and Joiners' 28	
Rings for Gauges	•••	•••	45 48	Do., Contractors' 29	
Rivets	•••	•••	46	Do., for Fitters 25	
Rods, Metal Rollers, Garden	•••	•••	27	Do., Horticultural 27	
Thu TI-mal	•••	•••	49	Do., for laying Asphalte 29	
The Dead	•••	•••	48	Trowels, Garden 27	
Roof Fittings	•••	• • • • •	52	Tubes, Wrought-Iron 32	
Roofing	•••	•••	55	Do., Boiler 33	
Ropes, Coir	•••	•••	49	Do., Iron 34	
Do., Manilla and Hemp	•••	•••	42	Tuyeres, Ordinary 26	
Do., Wire, Galvanized	•••	•••	41	•	
			- 1	V	
S	•		ļ	Waluan Salf alasina	
G ( 77' ) (			40	Valves, Self-closing 34 Do., Sluice 34	
Safes, Fireproof	•••	•••	49	37	
Sandpaper Saw and Hook combined, Pruning	•••	•••	29	Vices, Bench and Hand 25	
	•••	•••	27 28	vices, bench and I and	
Saws, Circular, Cross-cut, Hand, &c. Scissors, Garden		•••	27	W	
Screens for Soorkhi, Sand, &c.	•••	, •••	29	• •	
Screws, Iron and Brass	•••	•••	50	Washers, Iron and Lead 51	
Scythes	•••	•••	27	Waste, Cotton 29	
Seats, Garden	•••	•••	27	Whitworth's Taps and Dies 40	
Shears, Garden	•••	•••	27	Wire, all descriptions 52	
Sheet, G. C. Iron, Length, gauge,		ap-		Wrenches, Pipe 25	
proximate weight of	•••		57	Wrought-Iron Piping 32	
Shovels, Ballasting, Square, Firing	•••	29 &		Do. Tubes 32	
Showers, Brass	•••	•••	51	•	
Sluice Valves	•••	•••	34	Z	
Smiths' Tools	•••	•••	34		•
Do. Tuyeres	•••	•••	24	Zinc Sheets 49 & 52	
				•	

#### 33, GILDER STREET,

Bombay, October, 1891.

#### GENTLEMEN.

We take pleasure in presenting the most complete Catalogue for Timber, Hardware, &c., ever offered, which has been carefully revised and the prices corrected and reduced, in order to keep up its reputation as a book of reference for trustworthy information, and also as a complete list of the principal requirements of our numerous customers.

The support so liberally accorded to us during the last 17 years has enabled us to introduce into our Works the most modern and improved labour-saving machinery, and as we buy our materials in large consignments from Burma and the best European and American markets, we can offer our constituents advantages which cannot fail to give satisfaction.

Our Steam Saw Mill, as carried on by a specially qualified Staff, is a sufficient guarantee that we are now in a position to execute Indents and urgent Orders for the following works with as great despatch as any Firm in India, viz:—

- 1. Roofing of any description.
- 2. Do. of Howard's Ventilator.
- 3. Do. of Mangalore Tiles. 4. Do. of Corrugated Iron
- 5. Wooden Staircases, plain or ornamental.
- 6. Do. Flooring.
- 7. Do. Door and Window Frames.
- 8. Do. Doors and Windows of any approved design.
- 9. Do. Ceilings (Deal or Teakwood).
- 10. Do. Sleepers for Railways.
- 11. Do. Permanent-Way, Wooden Keys for Railways.
- 12. Do. Wageon Bottom Boards.
- 13. Do. Movable Chowkies.
- 14. Do Cabinet Work, in all its branches, for Churches, Schools, Offices, &c.
- · 15. Scantlings of any Wood cut to order.

The prices herein quoted are subject to alteration as the market fluctuates; they include delivery at any of the Railway Stations or Bunders in Bombay.

We guarantee delivery of our goods in good condition into the carriers' hands, and our responsibility for loss, damage, breakage, fire or short delivery, ceases as soon as they are delivered to the Steamers or Railway Stations in Bombay.

Our up-country Constituents will please note that the G. I. P. Railway Company charges for two waggon-loads, or full weight of 250 cubic feet, for any piece of Timber over 16 feet in length if the consignment is under that weight.

\_ you for past favours, and trusting that the advantages we now offer will secure your liberal patronage and result in our mutual benefit.

We remain,
Sir,

Very respectfully yours,

MUNCHERJI DORABJI & Co.

## 

## WSTRUK ANGURMATION!



Important Notes on Roofs, &c.

## 4 Muncherji Dorabji & Co., General Engineers, Contractors, etc.

### The following important Notes on Roofs, &c., will be found useful:

- 1. The weight of one square foot of double-tiled roof, including tiles, bamboo mats, battens, rafters, nails, and other timbers, &c., comes to lbs. 14-3.
- 2. A better roof is obtainable by substituting \( \frac{1}{2}'' \) or \( \frac{3}{4}'' \) planking and smaller purlins about \( 3'' \times 4''' \) placed 2' apart in place of large purlins, rafters, teak battens, and matting. The tiles can be easily laid over the planking. This roof looks very well with a coat of varnish, and there is no material increase in the cost.
- 3. The average weight of Mangalore tiles laid on the roof is 9 cwt, per 100 square feet, and, when thoroughly saturated with water, they absorb  $2\frac{1}{2}$  per cent. of Their weight; English bricks absorb about 7 per cent.
- 4. 150 Mangalore tiles will cover about 100 square feet, and the approximate cost is Rs. 7 to Rs. 8 per 100. Ridge and hip tiles cost Rs. 25 per 100 approximately.
- 5. The approximate cost of corrugated iron roofing, including iron trusses, angle iron purlins, and 20 gauge corrugated iron with fittings complete, is about Re. 1 per square foot measured horizontally, but this does not include the cost of cast-iron columns and corrugated iron sheeting for the sides of buildings.
- 6. The approximate cost of Mangalore tiled roof, including teak trusses, teak purlins, rafters, reepers and tiles, is about Re. 0-14-0 per square foot measured horizontally.
- 7. The slope of the roof should not be less than 30 degrees.
- 8. Howard's Patent Ventilator is suitable for tiled roofs. It can be adapted for either king or queen post trusses. It has been highly approved of by Government, and used in upper-storied barracks at Poona, Kirkee, Ahmednugger, Ahmedabad, and other places. The cost for the same may be taken at Rs. 4-2-0 per lineal foot. For details, see page 10.
- 9. The following data may be relied upon, viz.:-
  - (a) To cover 100 square feet of roof, including wastage, &c., 1\frac{1}{2} cwt. of 24 gauge sheets will be required.
  - (b) Do. do. do. 13 , 22 do. do.
  - (c) Do. do. do. 2 , 20 do. . do.
  - (d) Do. do. do.  $2\frac{1}{2}$  , 18 do. do.

### NOTES ON TRUSSES.

Struts parallel to opposite principal, and divide that on which they impinge equally. Width of principals, king or queen post and straining beam, equal to that of tie beam.

The following materials are required for 100 square feet of double-tiled roof:-

 $2,200 \text{ Tiles}, 10'' \times 31''$ .

100 Square feet double mat.

1'-6"-9"-0" Teak Battens.

240 Nails 14" long, weight 2 lbs. 61 oz.

For single tiled roof 1,100 tiles are required, and the other materials same as double tiled roof.

To find length of rafter, multiply breadth from eave to eave by 577. To find number, multiply length of building eave to eave by 8. If the rafters procurable are not a multiple of the distance between the purlins, there will be waste.

To find length of Hip rafter, multiply breadth from eave to eave by '763.

#### NOTES ON ROOFING.

Unwrought materials are such as are merely sawn out, but not worked or fitted in any way.

Wrought materials are those that have been planed, or worked, or fitted in any way.

Framed work is when two or more timbers are morticed and tenoned together, or scarfed, such as trusses: but wall-plates, or purlins, that are merely checked on to each other, are only considered as wrought.

The woodwork of roofs should invariably be estimated separately from the covering, as otherwise the rate per square will vary with the length and breadth of every building. The woodwork should include trusses, purlins, wall-plates, rafters, &c.

A fair rate to take for labour on framed work is 12 annas per cubic foot, including fixing in place.

25 per cent, is usually allowed on the net contents for wastage in converting timber.

The weight of 1 square foot of double tiled roof is lbs. 30.5175, and the weight of 1 square foot of single tiled roof is 16.7675.

For Buildings no corrugated iron of less than 20 B. W. G. should be used, 22 and 24 gauge being only suited for temporary sheds.

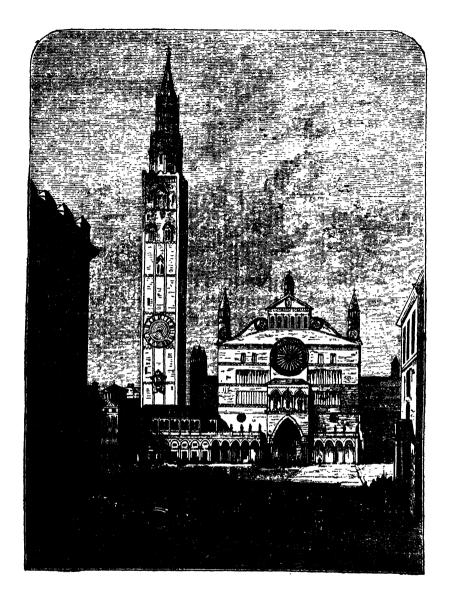
The following are the approximate weights per square for the different gauges:-

No. 14 gauge, weight 300 lbs. per square.

" 16 " " 260 " "

" 18 " " 236 " "

For wrought works, such as purlins, wall-plates, &c., 6 annas per cubic foot will suffice.



The following are some of the principal current rates at which substantial buildings can be constructed in Bombay:—

					Ra	ate.		Per
Arches of good brick and lime, Do. of Porebunder stone Do. of Coorla cut stone Do. of blue basalt	including do. do. do:	the cost of do. do. do.	centering, do. do. do.	&c	$\frac{2}{3}$	a. 0 4 0 12	0	

	Rate.		Per
	Rs. a.	n.	
Battens of teakwood 2" × 1" for Mangalore tiling, fixed at distances	2000 441	7	
to suit tiles	4 8	0	100 s. feet.
Do. 1" × 3" for do., fixed on top of planking	.20	0	Do.
Do. 2" × ½" for Country round tiles, fixed with nails 2" apart	6 8	0	Do.
Do. of bamboo, nailed for do	$\begin{array}{cccc} 2 & 8 \\ 2 & 0 \\ 2 & 8 \end{array}$	0	Do.
Bases of blue cut stone of ordinary size, bazar made	$\begin{array}{ccc} 2 & 0 \\ 0 & 0 \end{array}$	0	Each.
Do. made to order, plain		0.	C. foot.
Do, moulded		0	Do. Do.
Do. of cut, moulded and carved Porebunder stone	60	0	Do.
Do. of blue stone		0	3.70%
planing and painting on the underside	22 0	0	100 s. feet.
Do. 3 do. do	28 0	0	Do.
Ceiling of dungry cloth, without frame-work, but with whitewashing.	5 8	0	Do.
Colorwashing walls with two coats of shell lime	0 2	6	Do.
Do. stone color, yellow, blue or grey, in two coats	0 4	0	Do.
Do. in distemper of different tints	1 2	0	Do.
Coping of ordinary blue basalt stone slab with nosing	0 12	0	R. foot.
	2 4	0	C. foot.
Do. of blue basalt do.		0	Do. Do.
Do. of Porebunder cut stone do.		0	Do.
Cornice of teakwood moulded, of ordinary sizes		0	Do.
Do. of Porebunder cut stone moulded		0	Do.
Do. Coorla do. do		0	Do.
Dammering roofs with pitch and dammer, one coat	1 4	0	100 s. feet.
Do. do. and dungry cloth	4 8	0	Do.
Door and Window shutters of teakwood, from 1\frac{1}{2}" to 1\frac{3}{4}" thick, panelled			
or & panelled and & glazed, with brass fixtures and fasten-			CI 0 .
ings and painting or varnishing	1 4	0	S. foot.
ings and painting or varnishing  Do. ordinary, with brass fixture and iron fastenings do  Venetian, with brass fixtures and fastenings	1 0	0	Do. Do.
Venetian, with brass fixtures and tastenings	$\begin{array}{ccc} 1 & 6 \\ 0 & 10 \end{array}$	0	Do.
Planked and batten ledged with brass fixtures and iron fastenings Frame work of teakwood for doors, &c	3 8	0	C. foot.
Excavations in soft soil to ordinary depth, from annas 10 to		o	100 c. feet.
Do. in hard moorum, from Re. 1-8 to		0	Do.
Facing stone walls with regular coursed khandkee of Coorla stone,			
with quoins and jambs	70 0	0	100 s. feet.
Do. do. blue basalt do	45 U	0	Do.
Do. Porebunder cut stone (to be deducted from the masonry)	2 0	0	C. foot.
Flooring of Porebunderstone pavement, plain, 2" thick, without bedding.	<b>26</b> 0	0	100 s. feet.
Do. of chunam, with 6" thick concrete bedding, finished with neroo	10 0		TV.
and thaptee	16 0	0,	Do. Do.
Do. blue stone, plain, roughly dressed, without bedding	$\begin{array}{ccc} 28 & 0 \\ 38 & 0 \end{array}$	$\frac{0}{0}$	<i>D</i> 0.
Do. medium, dressed plain do.	85 0	0	Do.
Do. of Minton tile, ordinary pattern do	$\begin{array}{ccc} 03 & 0 \\ 28 & 0 \end{array}$	o	Do.
Do. moorum, 4" to 6" thick, of fresh earth, well consolidated and	,	- 1	
cow-dunged	2 8	0	Do.

·	Rate.		Per
	Rs. a.	р.	
Concrete bedding of floors of 2 parts metal and 1 part mortar, includ-			
ing consolidation	18 0	0	100 c. feet.
Foundation of metal concrete, including consolidation	17 0	0	Do.
Do. of stone and lime masonry	20 0	0	Do.
Glazing with ordinary Crown glass, fixed with tacks and putty	0 3	6	S. foot.
Do. sheet glass do.	0 6	0	Do.
Gutter of 1" teak plank with dungry cloth and dammer	0.7	0	S. foot.
Do. 6" galvanized iron, English made, for eaves, with iron hooks			
fixed, complete	0 9	0	R. foot.
Painting chocolate, or brown or wood color, one coat	0 12	0	100 s. feet.
Do. do. buff, two coats	1 8	0	Do.
Do. green, lead, red and blue, one coat	1 12	0	Dо.
Do. do. do. two coats	2 4	0	Do.
Do. white zinc, with Hubbuck's, one coat	1 8	0	Do.
Do. do. do. two coats	2 8	0	Do.
• Do. with good boiled linseed oil	0 8	0	Do.
Do. do. do. two coats	0 14	0	Do.
Planking to floor, I" thick, tongued and grooved, including fixing and		_1	
painting	<b>3</b> 3 <b>0</b>	0	Do.
Do. $1\frac{1}{2}$ do.	<b>42</b> 0	0	Do.
Do. 4" to roof, &c,	28 <b>u</b>	0	Do,
Do. ½ do	24  0	0	Do.
Plastering walls of stone or brick, with fine plaster and white-		-	
washing	8 0	0	Do.
Do. rough	5 0	0	Do.
Do. mud, with whitewashing	1 0	0	Do,
Do. cement and niroo coated	12 0	0	Do.
Pointing brick facing with niroo and cement	4 0	0	Do.
Do. khandkee facing	3 8	0	Do.
Roofing of Mangalore tiles, including ridges and hips set in lime	12 0	0	Do.
Do. country round double tiles	11 0	0	Do.
Do. do. single	6 0	0	Do.
Do. of galvanized corrugated iron sheets, 24 gauge	22  0	0	Do.
Do. do. do. 22 do	25  0	0	Do.
Varnishing woodwork, with one coat of boiled oil and one coat of varnish	1 10	0	Do.
Do. do. one coat of boiled oil and two coats of			_
varnish	2 8	0	Do.
Walls of uncoursed rubble stone and lime masonry for ground floor	>	-	
(add rupee one for upper floors)		0	100 c. feet.
Do. of good brick and lime masonry	32  0	0	Do.
Do. of corrugated sheet iron, 18 gauge	<b>33 0</b>	0	Do.
Steps of Porebunder cut stone, including setting	$\frac{2}{2}$	0	C. foot.
Do. of blue stone slab, I' wide, and setting	0 10	0	R. foot.
Do. of blue cut stone	2 8	0	C. foot,
Do. of Porebunder slab stone, 2" thick, 1' broad	0 6	0	R. foot.
reakwood in floor joists, beams, plates, &c., including fixing and	, ,		
painting	3 4	0	C. foot.
Do. in framed trusses, including iron-work and painting	3 8	0	Do.
Do. in roofing, including fixing and painting	3 6	0	Do.

	Rat	e,		Per
Down-take Water and Drain Pipes.	Rs.	a.	p.	
Rain water cast-iron pipe, 3" diameter, including bends, shoe and fixing and painting  Do. do. 4" do  Do. wall trap, 3" diameter, single and fixing  Do. do. 4" do. do.  Tee, 3" diameter do.  Do. 4" do, do.  Drain pipes of glazed earthenware, 4" diameter, including all excava-	0 0 2 5 2 2	8 13 8 8 0 8	0 0 0 0 0	R. foot. Do. Each. Do. Do. Do.
tions of trenches to ordinary depths and laying with necessary bends, tees, &c., complete	0 1 1	12 0 8	0 0 0	R. foot, Do. Do.
Do. 9" do.  Water pipes of galvanized wrought-iron, ½" diameter, including laying with all fittings, complete  Do. ½" do.  Do. 1" do.	0 0	3 4 6	6 6 0	Do. Do. Do.

### RIDGE VENTILATOR (Howard's Pattern).

Two ridge poles, each  $2\frac{1}{2}$ "  $\times$   $11\frac{1}{2}$ ", will be employed, placed on opposite sides of the head of the king post with a clear space of 6 inches intervening between them.

#### Ventilating Poles.

2. This space will be preserved by means of cleats, or blocks of wood  $17'' \times 6'' \times 4''$ , placed at intervals of 3''-7" central distance along the length of the ridge. The space between the two ridge poles forms an exit for foul air.

#### Cast-Iron Brackets.

3. To form a covering to protect the space, and at the same time to allow of the escape of foul air, the verticle limbs of two light cast-iron brackets are secured to the inner face of either ridge pole at the points where the cleats, above mentioned, occur. Two bolts are passed through the ridge poles, brackets, and cleats, thus securing them in their proper places.

### Slope.

4. The sloping limb of the cast-iron bracket, which has the same angle as the roof, depends over the main roof, so forming a line of supports for the ridge covering.

#### Ventilator Covering.

5. The most durable and economical material for the ridge covering is corrugated iron. Two battens,  $3'' \times 1\frac{1}{4}''$ , on either bracket, together with a ridge piece, is all the wood-work that is necessary. The corrugated iron is bolted to the bracket, the bolt passing through the batten.

#### Cost.

6. Its cost in Bombay is Rs. 4-2-0 per lineal foot, including cast-iron brackets, corrugated sheets, ridge capping, and all bolts and nuts.

The following Statement will show that the strength of TEAKWOOD is greater than that of any other timber:—

Names of Timber.	Specific Gravity.	Weight in lbs. per Cubic Foot.	Tenacity in lbs. per Square lnch.	Crushing Force in lbs. per Square Inch.
Ash		50	17·200	9.000
Beech	•69	43	11.000	9.000
Birch	•71	44	15.000	5.500
Cedar	•48	-31	11.000	5.600
Deal	•7	44	12.000	6.000
Elm	•6	37	13.000	10.000
Hornbeam	•75	47	20.000	<b>7</b> ·000
Larch	•55	35	9 <b>·0</b> 00	<b>5·5</b> 00
Memel	.6	37		
Mahogany .	·8	50	16.000	8.000
Oak (English) .	•93	58	17.000	10.000
Oak (Canadian)	·87	54	10.000	6.000
Pine, red .	•65	41	12.000	5.800
Pine, yellow .	•45	29	11.000	5.400
Teak, Moulmein	·65	41	15.000	12.000
Yeu	•8	50	.000	•••••

We recommend Moulmein Teak in preference to all other woods for building purposes in India on account of its strength and durability, being almost equal to English Oak. I SALAR JUNG BAHADUR

## NAMES OF PRINCIPAL WOODS

IN USE IN THE

## BOMBAY PRESIDENCY

ARJUN. Is a very strong wood, of a dark-brown colour, and suitable for masts, spars, beams and ratters.

**BABUL.** The wood is of a light, red colour, close-grained, hard and tough, and, though rather heavy, is very durable.

**BAKUL.** This wood is heavy, close and even-grained, of a pink colour, standing a good polish, and more suitable for cabinet work.

**BLACK-**WOOD. This wood is too well-known. It is of a dark colour, and very heavy. It is stated to be strong as *Teak* for work not exposed to weather. Stands exposure well, is sound under water, but when alternately wet or dry decays rapidly. It is very suitable for cabinet works.

CEDAR. This wood is of white or red colour, commonly called "Agar wood" from the smell it gives. It is widely made use of for building carts, for yokes and other purposes.

CEDAR. Singapur. This wood is imported from Singapur. It is of a reddish colour, very

CEDAR. Singapur. This wood is imported from Singapur. It is of a reddish colour, very light, and suitable for rough work.

HONAY. A pretty wood, used in the interior of houses and not durable when exposed. HURDA. It is light and cross-grained, possessing little strength and liable to warp.

JAMRA. This valuable tree, known as the "Iron wood," is found throughout Southern India, furnishing a wood of very superior quality, heavy, hard, close-grained and durable, and of a very dark-red colour; it is, however, not easily worked and resists pails. It is used for Bridge-building, posts, piles and Railway Sleepers.

resists nails. It is used for Bridge-building, posts, piles and Railway Sleepers.

This tree is found all over India. The wood when dry is brittle and has a coarse and crooked grain. It is suitable for some kind of house carpentry and joinery, tables, musical instruments, cabinet and marquetry work, &c. The wood when first cut is yellow, afterwards changing to various shades of brown.

**MANGO.** This wood is used for flooring planks, packing boxes and cabinet purposes.

MANGO. The wood of Mango is of inferior quality, coarse and open-grained, of a deep gray colour, decaying if exposed to wet, and greedily eaten by white ants. It is, however, largely used, being plentiful and cheap, for common doors and door posts, boards and furniture, and also for firewood. It should never be used for

TAMARIND.

beams, as it is liable to snap off short.

The heart wood is very hard, close-grained, dark, red, very hard to be worked, used for turnery, also for oil presses and sugar crushers, mallets and plain handles, and it is a very good brick burning fuel.

UNJUN. The wood is dark-coloured, heavy, and of an excellent quality for posts.

## List showing the names of Principal Trees and their weight in lbs. of a Cubic foot of Seasoned wood.

Names of wood.	Weight in lbs.	Names of wood.	Weight in lbs.
UnjunBabulBlackwood Teak Honay JambaArjun	50 42 56 58	Bakul Hurda Jack Kalamb Mango Tamarind	44 42



## KAMBARRARRAR BERKER



## SCANTLINGS CUT TO ORDER BY MACHINERY

UP TO 16 FEET IN LENGTH.

Si	Sizes in Inches.			Rate per Cubic Foot.				Sizes in Inches.			Rate per Cubic Foot.				. Remarks.	
				R	s.	a.	p.					]	Rs.	a.	p.	•
11/2	×	1,1		יַ				5	×	3	•••	)				•
2	×	1						5	×	4	• •••					
2	×	11/2	•••	.	2	4	0	6	×	2	••		2			These prices are for pieces of Special lengths up to 16 feet, but
2	×	2	•••		Z	4	U	6	×	3	•••			8	0	
3	×	1	•••					6	×	4	•••					
3	× :	1 ½	•••					7	×	2	•••					
3	× s	2	•••	)	2	8	0	7	×	3	•••	]				if pieces of various lengths from 6 feet and upwards are required,
3	× 8	3		Ĵ	z	0	U	8	×	2	•••	h				four annas per cubic foot will be deducted from these rates.
4	×	1/2	•••	)				8	×	3	•••				•	
4	× 1	l	•••	}	2	6	0	9	×	2	•••		9	10	0	
4	× 1	ł		}				9	×	3	•••	ĺ	۵	¥U	v	
4	× 2	?	• •	)				10	×	2	•••					
4	× 3	3	•••		9	8	0	10	×	3	•••	j				
4	× 4	Į.	•••		2	U	0	12	×	2	•	1	3	0	0	·
5	× 2	2						12	×	3		\ \ \ .		v	v	

## BOARDS CUT TO ORDER BY MACHINERY

UP TO 16 FEET IN LENGTH.

### TEAK TIMBER OF SPECIAL DIMENSIONS

OTHER THAN THOSE MENTIONED IN PAGE 12, CUT BY MACHINERY.

Description.	Rate per cubic foot			
Scantlings and Boards up to 16 feet long and 3 inches square or its breadth	Rs. a. p.			
and depth not more than 3 inches either way	2 8 0			
Scantlings and Boards up to 16 feet long and 6 inches square or its breadth and depth not more than 6 inches either way	2 10 0			
Scantlings and Boards up to 16 feet long and 9 inches square or its breadth and depth not more than 9 inches either way	2 12 0			
Scantlings and Boards up to 16 feet long and 12 inches square or its breadth and depth not more than 12 inches either way	2 12 0			
Scantlings and Boards up to 16 feet long and 15 inches square or its breadth and depth not more than 15 inches either way	3 4 0			

V. B.—For pieces over 16 and under 24 feet in lengths an extra charge of four annas per cubic foot will be added to the above rates.

## MISCELLANEOUS.

						-	BAI	MBO(	os.	-						
2" ]	Mean do.				to 10 f 5' long	eet long		•••	•••	•••		•••	@	), Rs.	12 p	er 100
2	uo.	•		anu I	o iong	•••	•••	•••	•••	•••		•••	•••	"	120	<b>uo.</b>
N.A	<b>B.—</b> O:	ne b	undle				Re.	l per l s, on a		rage, f			30 squ	are fo	eet o	f area.
						BA	MB	00 M	RTAN	•						
						0-14-0 p 1-10-0	er 10	0 squa do			ingle oubl					
	•					ENS,				י דט	rea:	K.		•		
2" b	y ¾" f	rom	4 to 6	and	6 to 16	ft. in le	ngth	•••	•••	•••	@ F	Rs. 1-	5-0 p	er 100	) run	g. ft.
							BE	NTE!	AK.							
Log	s		•••			•••			•••	•••	(a) R	Rs. 1-7	7-0 pe	er- cub	ic fo	ot.
Cut	to ord	ler .	••	•••	•••	•••	•••	•••	•••	•••	•	., 1-1	5-0		do.	
						CEILI	NG.	DEA	LWO	OD.						
6" b	6" by 1" Planed, Tongued and Grooved @ Rs. 3-12-0 per 100 rung. ft.															
6°by	4		do.		uo.			•••	• • •	•••		, 5-4		do.		_
				IV,B,	Brea	dth 6 in	cnes,	includ	ing 1	ongue	and (	iroove	€.			
						CEILI	NG,	TEA	KWO	OD.						
6" b	$y \frac{1}{2}$	Plan	ned, I	ongu	ed and	Groove	1	•••	•••	(a	Rs.	8-0-	0 per		rung.	ft.
6" b	y 1"	d:	o. o.		do. do.				•••	•••	,,	11-0-	0	do.		
6" b	y 11/2		0.		↓ do.			•••	•••	•••	"	12-0- 18-0-	0	do. do.		
				N, B	•	dth 6 in								40.		
21"	thick				•	CORNIC	CE,	TEA.	KWO			⊘ D.	17 -	100	Λ ¥	f t
3"	do.	•••	•	•	•••••	••		•••	•••	·		@ Rs.	19 p		0. 0.	1001.
4"	do.	•••	••			••		•••			•••				ი.	
					C	יטומפל		IINA	T 73 34	, , ,						
21"	thick	•••	•••	•		ORNIC:		ONG	LIEA- VY	UUD		@ Rs.	8 ne	- 100	T 6.	nat.
3"	do.	•••	•••	•			•	••	•••	•••	••• •	y 13. ,,	9		D. 10	JOL.
4"	do.	•••	•••	•	••	••	•	•••	•••	•••	•••	"	15		o.	
	DEALWOOD.															
Scan	tlings	cut	to or	der		• •••	- mm 4 % A			@	Rs.	1 12	0 n	ėr cu	hic fo	not'
Boar	rds		de.	••		•••	•	••	•••	•••	"	1 14	ŏP		do.	,

## DOORS AND WINDOWS.

We are fully prepared to execute, upon short notice, all kinds of high-class work to Architects' Plans and Specifications from Teak or any specified Timber, and guarantee the same to give entire satisfaction.

All Doors and Mouldings are made from thoroughly seasoned Teak Timber, and all tenons well and truly fitted by Machinery. We have made a large number of Doors and Windows for the Public Works Department, for State Railways, for Churches, private Residences and Bungalows in Bombay and up-country, and they have been pronounced, in finish and workmanship, excellent.

## DOOR AND WINDOW FRAMES

(OF IST CLASS MOULMEIN TEAK).

Frames	•••	•••	•••	•••	•••	•••	@	Rs.	3	U	0	per cubic foot.
Circular Frames	• • • •	•••	***	•••	•••	•••	•••	,,	5	U	U	do.

#### DOOR AND WINDOW SHUTTERS

(OF 1st CLASS MOULMEIN TEAK)

#### FOR ORDINARY BUILDINGS.

		Thickness of	of Shutters.					
Description.	13 Inches.	1½ Inches.	1½ Inches.	1 Inch.	Per	REMARKS.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.				
Glazed	0 10 0	0 9 0	0 8 0	0 7 0		and		
Half Panelled, Half Glazed.	0 11 0	0 10 0	0 9 0	0 8 0	Foot.	tures al		
Panelled	0 12 0	0 11 0	0 10 0	0 9 0	Square Foot.	Without Fixtures Fastenings.		
Half Panelled, Half Vene-	0 13 <b>0</b>	0 12 0	0 11 0	0 10 0	02	· With		
Venetianed	0 14 0	0 13 0	0 12 0	0 11 0		·		

N.B.—Two annas per square foot will be added to the above rates for Door and Window Shutters of first-class Moulmein Teak for Ornamental Buildings.

### JUNGLE-WOOD

(Includes Ayeen, Haydee, Cedar, Poon).

Scantlings and Boards under 16 feet... ... ... @ Rs. 1 12 0 per cubic foot.

## LOGS, MOULMEIN TEAK SQUARE, AS IMPORTED.

English First Class	•••	•••	•••	•••	@ Rs.	112	0	0 p	er ton of 50 cubic ft.
(2.1. 1.73) (2.1					,,				do.
Ordinary First Class	•••	•••	•••	•••	*** ;;	80	0	0	do.
Second Class	•••	•••		***	,,	70	0	0	do.

## MANGALORE TILES.

These Tiles being lighter, much saving is effected in the quantity of timber required for the structure of the roof. Rafters of 2 inches by 6, placed at intervals of 3 feet, and reefers of 2 inches by 1, at intervals of 12½ inches, are quite strong enough. The constant shifting requisite with native tiles is quite unnecessary, and a roof once properly finished, will not require to be touched.

At Rs. 80 per 1,000 Tiles.

N.B.—150 Mangalore Tiles will cover about 100 square feet of area.
1,000 Tiles weigh about 3 Tons.

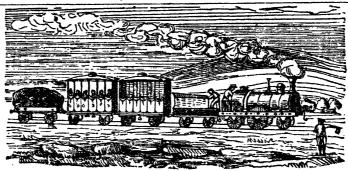
#### RAILWAY SLEEPERS.

Half Round 10' by 10" by 5" of	Northern '	Teak	•••	•••	•••	(	@ Rs.	5	0	0	each.
Rectangular 10' by 10" by 5"	do.		•••	•••	•••	•••	,,	7.	0	0	• •
Moulmein Teak Sleepers	•••	•••	•••	•••	•••		,,	7	0	0	,,

Pot Sleepers (prices on application).

### SINGAPUR WOOD.

Scantlings cut to order under 16 feet in length	•••	 @ Rs.	1 12	o per c. ft.
Scantlings over 16 and under 24 feet in length	•••	 	2 0	o do.



To obviate the trouble to Constituents in finding out "transit charges," we give the following alphabetical list of the principal Stations on the G. I. P. and B. & C. I. Railway Lines and principal Sea Ports on the Coast, showing approximate rates per cubic foot at which Cut Teak Scantlings, &c., can be carried.

Please note that the G. I. P. Railway Company will charge for two waggon loads or full weight of 250 cubic feet for any piece of Timber over 16 feet in length. Pieces under 16 feet can be sent by Road Van without extra charge.

	,		Under 16 feet in length.		Under 16 feet in length.
STATIO	NS.		Rate per cubic foot.	Stations.	Rate per cubic foot.
Abu Road	•••		Rs. a. p. 0 18 0	Khandwa	Rs. a. p. 0 6 0
Aden by Steamer	•••	•••	0 9 0	Khangaon	0 6 6
Agra		•••	1 8 0	Kirkee	0 2 9
Ahmedabad for Deesa	•••	•••	0 8 0	Kulburga ,	0 8 0
Ahmednugger			0 4 6	Kurrachee	0 5 0
Aimere	•••		1 1 0	Lucknow	1 4 0
Akola	•••	•••	070	Malcapur	0 6 0
Allahabad	•••	•••	1 0 0	Mhow	0 8 6
Anand			0 6 4	Mahar	080
Baroda	•••		0 6 0	Mohomudabad for Kaira	070
Barsee Road	•••		0 4 9	Mulkapore	070
Bhosawul	•••	*** **	0 5 6	Munmar for Maligaum	0 3 7
Bhownugger			0 12 9	Murtizapore	0 7 3
Bhurtpore		•••	17.0	Nagpore	096
Billimora			0 8 3	Nandgaum for Khandeish	0 3 10
Broach by Rail	•••	•••	050.	Nandura	063
Do. by Sea		•••	0 3 0	Nassik Road	0 2 10
Bulsar by Rail	•••		0 4 0	Nowsaree	0 3 9
Do. by Sea	•••		0 3 0	Neemuch	100
Burhanpore		***	0 6 0	Neriad	070
Callian	•••		0 1 5	Nussecrabad	1 2 0
Chalisgaum for Dhulia			0 4 3	Oomrawuttee	080
Chiplun for Kolhapur	•••	•••	0 3 0	Pali	071
Chorul	•••	•••	070	Palunpore	0 12 0
Dakore	•••	•••	0 6 0	Poona	0 2 10
Damaun Road	•••	•••	0 5 0	Rutlam	<b>0 12</b> 0
Delhi	•••	•••	190	Rutnagiri	0 4 0
Dharwar via Goa	•••	•••	0 7 0	Satara Road	040
Do. by Rail	•••	•••	070	Sangli	050
Dhond	•••	•••	0 3 8	Secunderabad	090
Dhoraji	•••	•••	0 14 6	Shahabad	0 7 0
Etarsee	***	.,	0 9 0	Sholapur	0 5 7
Egutpoora	•••	•••	0 2 8	Songa	0 12 3
Godhra	•••	••• •••	0 6 0	Surat by Rail	0 4 1
Gulburga	•••	***	069	Do. by Sea	0 8 0
Gwalior	•••	•••	1 5 0	Umroth	0 5 0
Hyderabad	• 9.	•••	0 9 0	Vingorla for Belgaum	0 5 0
ndore	•••	•••	0 9 8	Wadwan	0 9 0
etpur	•••	•••	0 14 2	Do. City	0 9 11
eypore	•••	•••	1 4 0	Wathar	086
ubbulpore	•••	•••	0 11 1	Rajputana Railway.	
ulgaum	•••	•••	0 5 2	Palanpur	0116
Karwar	•••		050	Ajmere	1 2 0
Karad	•••	*	046	Nasirabad	*** *** * * * * * * * * * * * * * * * *

N.B.—For Timber over 16 feet in length, an extra charge of Two Annas per cubic foot to be added to these rates.

## CARRIAGE OF TIMBER FROM BOMBAY.

## By the G. I. P. & other Railways.

### The following information for the Carriage of Timber will be found useful:-

71. Timber. a.—General (except as mentioned below) timber is charged at the following rates, namely:—

Not exceeding sixteen feet long, unwrought, including beams, planks rough-sawn, not planed or chiselled, railway sleepers and kadis, uncounted, and loaded and unloaded by the owners ......

Wrought (except as below) whether under or over sixteen feet long, including planks planed or chiselled, and unwrought, exceeding sixteen feet long, uncounted, and loaded and unloaded by the owners. Joiners' work, house fittings, doors, mouldings, sashes, and window

Special Class at O. R. First Class at C. R.

First Class at O. R. Second Class at C. R.

Second Class.

For long timber occupying one or more trucks, no less charge is made than for eighty-one (&1) maunds per truck used.

Measurement equal to weight reckoned at forty feet for each twenty-seven maunds for Ash, Babool, Beech, Eyne, and Teak, and for all other timber at fifty feet for each twenty-seven maunds. In measuring timber fractions of less than six inches are dropped, and fractions not less than six inches are charged for as one foot.

Timber is charged as per Company's measurement, or at actual weight at the time of booking, except in the case of minimum charge per truck used.

- 6. BETWEEN G. I. P. STATIONS AND VIA JABALPUR.—The G. I. P. charge for long timber, requiring more than one truck, booked through viâ Jabalpur, is at the first class rate on weight ascertained by measurement, each cubic foot being reckoned as equal to thirty seers of Sal and to twenty seers of all other timber, the minimum charge per truck used being as for the equivalent of 252 cubic feet of Teak, and 168 cubic feet of other woods.
- c. BETWEEN BOMBAY AND HYDERABAD AND SECUNDERABAD.—Timber, not exceeding sixteen feet in length in consignments of not less than one hundred and thirty-five maunds, booked from Bombay to Hyderabad and Secunderabad, is charged over the G. I. P. Railway at Re. 0-9-3 per maund. (The Nizam's State Railway rate, which has to be added to the G. I. P. rate to ascertain the through rates, is Re. 0-2-10 for Hyderabad and Re. 0-3-0 for Secunderabad.)
- d. FROM BOMBAY TO AGRA.—Timber in consignments of not less than 160 maunds, when booked from Bombay viâ Itarsi to Agra Fort, to Agra Cantonment and to viâ Agra Junction, is charged at a through rate of fourteen annas and four pies per maund, and to viâ Agra Cantonment at a through rate of fourteen annas and three pies per maund. From Bombay viâ Itarsi to Agra, when booked for Hathras and viâ, is charged at through rate Re. 0-14-0 per maund.
- e. Between Bombay and Cawnpur.—Timber in consignments of not less than 160 maunds, when booked between Cawnpur and viá Cawnpur and Bombay viá Itarsi, is charged at a through rate of one rupee and two pies per maund.
- f. TIMBER—when booked from Bombay via Itarsi to Jhansi, Gwalior, Morar, Morena and Dholpur is charged at a through rate of Re. 1-0-0 per maund.

### FREIGHT RATES.





Approximate Rates of Freight to the principal Coast Ports, by Steamers and Native Craft.

N	Name of Port.								er t		
,					Rs.	a,	p,	Rs.		Rs.	and for Native Craft vary articles to be shipped.
Beypore	•••	•••	•••		19	8	0	3	to	6	e Craft shipped.
Bhownugger	•••	•••	•••	*4*	••••	<b>::</b>		3	to	5	ve C
Calicut	•••	•••	•••	•••	13	8	0	4	to	6	Nativ to be
Carwar	•••	•••		•••	12	8	0	3	to	5	for
Cannanore	•••	•••	•••	•••	12	8	0	4	to	6	and for articles
Cochin	•••	•••	•••	•••	12	8	0	4	to	6	
Goa	•••	•••		•••	8	0	0	4	to	6	ason onl weight
Kurrachee	•••	•••	•••	•••	10	0	0	4	to	6	uir sea
Madras		·••·		•••	12	8	0		•••		or the fa quantity
Mandvee	•••	•••	•••	•••	8	0	0	3	to	5	for ti
Mangalore	•••	•••	•	•••	12,	8	0	6	to	8	are f g to
Rutnagherry	•••	•••	•••	•••	8	0	0	3	to	4	se rates a
Tuticorin	•••	•••	•••	•••	12	8	0	(Not go			These rates are for the fair season only, according to quantity and weight of

These rates are subject to alteration with any large demand for freight. They are also exclusive of Bunder fees and other shipping charges, which amount to about Rs. 2-8-o per ton. Insurance can be effected by Native Craft at the rate of it per cent.

We do not hold ourselves responsible for loss, breakage or damage of any kind after goods have been shipped. Consignees should have their goods examined on delivery, and make their claims against the Owners or Captains of Steamers and Native Craft, they being the only responsible parties.



## KRWARACTURE - WORKE



### 24

## IRONMONGERY DEPARTMENT.

We have the pleasure to announce that at the desire of our numerous Friends and Constituents, both in Bombay and up-country, we have made arrangements with the best Houses for the supply of all kinds of Engineers' and Contractors' tools, plant, and General Stores of superior quality, at extremely moderate prices.

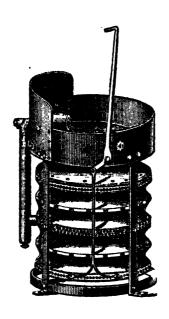
Every care will be exercised in packing and despatching goods, and up-country orders shall always have our prompt and careful attention.

## FITTER'S TOOLS.



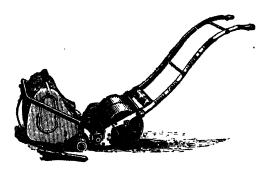
·							
BRACES, Batchet, with 6 Bits— Size	LEVELS, Spirit— Size						
BLOCKS, Scribing— Price eachRs, 18	PUNCHES, Centre— PriceAs. 8						
CALLIPERS—  Inside and outside— SizeInches 4, 5, 6, 7, 8, 10. Price eachRs. 1-4, 1-8, 1-12, 2-4, 3, 4-3  Inside— SizeInches 4, 6, 8, 12. Price eachRs. 0-12, 0-12, 1-4, 1-8	SPANNERS, Clyburn's—  LengthInches 8, 9, 12, 14, 16, 18  PriceRs. 3-4, 4-9, 5-0, 6-2, 7-0, 9  SQUARES, Steel—  SizeInches 6, 8, 12, 18.						
Outside—Same rate as Inside.  CHISELS, Steel— PriceAnnas 8 per lb.  FEEDERS, Oil, Patent Spring—  \$\frac{1}{4}\$ Pint, \$\frac{1}{2}\$ Pint, \$1\$ Pint.  PriceRs. \$\frac{0}{-10}\$, \$0-12\$, \$1-2\$  GAUGES, Standard Cylindrical— Internal and External sizes,  \$\frac{1}{8}\$" to \$2"\$, \$2\frac{1}{8}\$" to \$3"\$.  Price per setRs. \$225\$, \$225\$	PriceRs. 1-4, 1-12, 2-8, 4-8  STRAIGHT EDGES, Steel—  LengthInches 12, 18, 24, 30.  PriceRs. 1-12, 3-8, 5-8, 10  TONGS for Gas Pipes—  Inches ½, ¾, 1, 1¼, 1½, 2, 2½, 3  EachRs. 1-6, 1-8, 2-4, 3-0, 3-8, 4-8. 7-0, 9  VICES—  Bench, with Solid Nut—						
GAUGES, Birmingham Wire— Price eachRs. 3-4  HAMMERS, best Cast Steel— Price per lbAs. 7  KEYS, Screw, to take ¼" to 1½"— Nuts, 5 Keys— Price per setRs. 7  KEYS, Screw, Malleable— Price per setRs. 2-8	Price per lbRe. 0-3-0  Hand, 6" long— Price each,Rs. 1-12  WRENCHES—  Pipe, with Cutters combined, to take— Size						

## BLACKSMITHS' AND BOILERMAKERS' TOOLS.



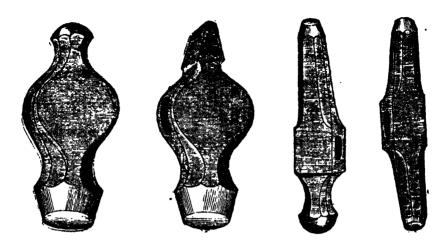
· Rs.	a	•		Rs،	
ANVILS, 1 to 3 cwtper cwt. 14	(	)	SNAPS, Steel, for Rivettersper lb.	1	0
BELLOWS-			SWAGES, Steel,	1	0
SizeInches 24, 30, 36, 42. Price eachRs. 25, 45, 75, 130			TONGS, Smiths' or Rivetters', TOOLS—	0	8
BLOCKS, Crosseach 24	C	)	<b>}</b>		
BEARS, PUNCHING—  A. size, § hole through § plate, each 110 B. size, ‡ hole through ½ plate , 150	0		BLACKSMITHS', in boxes containing Three Steel top and bottom Swages, 3 Steel Flatteners, 3 Steel Chisels, 3 pairs of Tongs, 2 Sledge Hammers,	ıg—	
CHISELS, Smiths', with Rods, perlb. 0 FORGES, Portable, Ordinary—	6	3	1 Hand Hammer, and 1 set of Fire Ironsper set	35	0
SizeInches 16, 18, 20, 22, 24. Price eachRs. 35, 40, 45, 60, 80			RIVETTER'S, in boxes consisting of Two each $\frac{1}{2}$ ", $\frac{5}{6}$ ", $\frac{7}{6}$ ", and $\frac{1}{6}$ " best	f-	
HAMMERS—  Sledge, Steel-facedper lb. 2 Hand, Steel, 0 Rivetting, 0 Holding-up, Steeled, 0  IRONS, Smiths' Fireper set 6  PUNCHES—	6	<b>7</b> 3	Cast Steel Cupped Rivet Snaps, 6 Steel Repners, 6 Steel Drifts, 4 Steel Punches, 1 Cold Chisel, 1 Cold Set Chisel, 2 Dollees, 2 Steel Rivetting Hammers, 1 Quarter Hammer, 1 Sledge Hammer, and 2 pairs of Rivet Tongsper set	40	0
Duplex, 3" hole through 5" plate, each 140	(	0	TUYERES—		·
Smiths' Steelper lb. 0	_		Ordinary, with back Plateeach	7	0

## AGRICULTURAL AND HORTICULTURAL TOOLS, &c.



Rs. a.  BILL HOOKSeach 1 2	ROLLERS, Garden—	Rs.	a.
CANS, Watering—         Galvanized Ironeach 2-4, 3, 3 12         Double Tin	Weighing cwt 4, 5, 6, 8 Price eachRs. 36, 45, 48, 64 SAW and HOOK combined	3	
FORKS—  Garden	SEATS, Garden		
PLOUGHS—  English	2 feet long, ornamental, cast-iron ends and wooden seateach	22	0
KNIFE—         Pruning	SCISSORS— Pruning, with springseach Vineeach	2 2 1	•
MOWERS, Lawn— Size	SHEARS, Garden :,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2 7 0	8

## CARPENTERS' AND JOINERS' TOOLS.



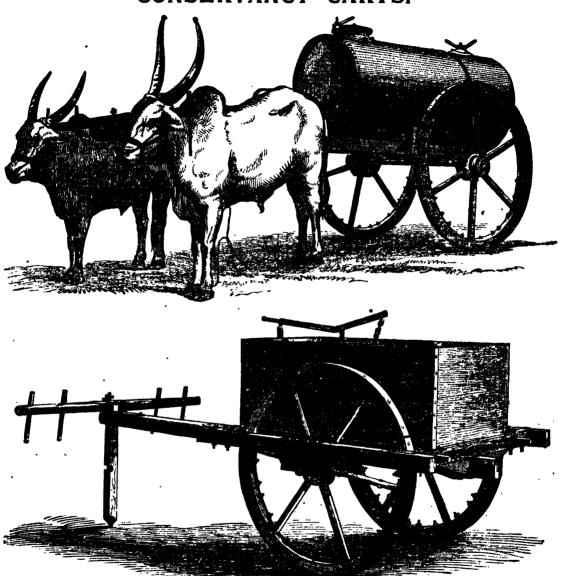
AUGERS, Screw—. Rs.	a.	1	$\mathbf{PL}$
Size Inches $\frac{1}{4}$ , $\frac{2}{8}$ , $\frac{1}{2}$ ,	<del>8</del>		
Price per dozRs. 7-8, 7-8, 8-8,	10		Pric
Size Inches $\frac{3}{4}$ , $\frac{7}{8}$ , 1, 1 $\frac{1}{8}$ ,	14		PL
Price per dozRs. 11, 12, 14, 17,	19		S
AXES, with Ash Handles-			F
Small. Lar	ge.		Cut
Price, each	12		S
BRACES, with Bits-			F
From $\frac{1}{8}$ to $1\frac{1}{4}$ each 9	0		
<b>CRAMPS</b> , Joiners', 5 ft	0		Circ
CHISELS-			S
3," to 1½ 3," to 1½	N,		F
Firmer. Mortice. Soc	ket.		Cro
Price per setRs. 3-0 7-8 8-	0		S
DRILLS, Archimedian, with Bits,			F
each ]	8		Hai
DRIVERS, SCREW—			S
SizesInches 4, 6, 9,	12		F
Price eachRs. 0-4, 0-6, 0-10,	1-0		Pit-
	8		S
<b>GIMLETS</b> , $\frac{1}{8}$ to $\frac{1}{4}$ per doz. 2	0		F
	3 4		SQ
HAMMERS, Carpenters,' clawed,			S
each ]	8		P

PLANES— Rs. a.		
Smoothing. Plough. Rebate. Trying.		
Price each Rs. 1-8, 11, 1-12, 3-8		
PLIERS—		
SizeInches 4, 6, 8		
Frice each		
Cutting—		
SizeInches 6, 8		
Price eachRs. 1-8, 2-4		
Circular—		
SizeInches 18, 20, 24, 30, 36, 42		
Price each.,Rs. 12, 15, 20, 30, 45, 70		
Cross Cut—		
SizeFeet $5\frac{1}{2}$ , 6, $6\frac{1}{2}$ , 7		
Price eachRs. 4-8, 5, 5-8, 6		
Hand-		
Size.,Inches 18, 20, 24, 28, 30		
Price eachRs. 0-12, 0-14, 1-0, 1-8, 1-12		
Pit—		
SizeFeet 5½, 6, 6½, 7, 9		
Price each		
SQUARE, STEEL BLADES—		
SizeInches 6, 9, 12, 15		
Price eachRs. 0-12, 1-0, 1-4, 2-0		
Frice each		

## CONTRACTORS' TOOLS AND STORES.

	Rs. a.	Rs. a.
BARS-		PITCH—
Quarry-lifting without waste		Or Dammerper barrel of 3 cwt. 10 0
Special lengths, Mason's. Platelayer's	5.	POWDER, BLASTING-
Price Rs. 13, 8 9 per cwt.		Englishper keg or c
BEATERS, Yankee pattern-		POWDER-
According to qualityper doz.	12 8	Disinfect-\ per cask of \ best 10 0
CROWBARS -		ing 1 cwt ordinary. 7 0
Special lengthsper cwt.	8 8	POWRAHS-
Usual sizes	<b>8</b> 0	Ordinary quality, lbs. 21, 3, 31, 4
DRILLS-		Per dozRs. 3-12, 4-8, 5-4, 6
Best quality, steel, usual size	18 0	Steellbs. 3, 31, 4
Special size	18 0	Per doz
Ordinary quality	10 8	RESINper lb. 0
FUZE FOR BLASTING—		•
300 coils, 24 ft. eachper cask	<b>5</b> 0 <b>0</b>	SANDPAPERper doz. sheets. 0 3
HAMMERS-		SCREENS, galvanized, 6' × 29", each 17 0
Platelayers, keying and spiking,	٥ ٥	SHOVELS, Ballasting-
per lb.	$\begin{array}{ccc} 0 & 3 \\ 0 & 2 \end{array}$	Ordinaryper doz. 10 8
Sootkie with steel bits,, Stone Breakers,	$\begin{array}{ccc} 0 & 2 \\ 0 & 2 \end{array}$	Solid Steel , 12 0
Do., solid steel,	0 3	SOLDER, soft per lb. 0 8
Scabbling, steel-faced,	0 3	
Tankie,	0 3	SPOONS, for blasting 0 4
HANDSPIKES, Ash	18 0	TAMPING RODS-
•	•	Copper-tippedeach 1 8
JIMCROWS, for Platelayerseach		All Copperper ib. 0 10
LAMPS, Hand, Signal, Defries'	<b>5</b> 0	TAR-
MORTAR PANS OR GHAMEL		Stockholmper cask of 28 gals. 28 0
15" diameter, English per doz.	9 0	Coal, English ,, 80 ,, 13 0
Do. country made	6 0	. •
NEEDLES, for blasting	0 4	TOOLS, for laying asphalte, per set 13 0
PICKAXES, solid eyes-		WASTE, Cotton—
lbs 6, 6 <sub>3</sub> , 7′ 8		No. 1 quality, No. 2, No. 8, coloured.
Price per doz. Rs. 7, 7-8, 8, 8-6		Per cwt. Rs. 22-8 15, 11-8 6 0

### CONSERVANCY CARTS.

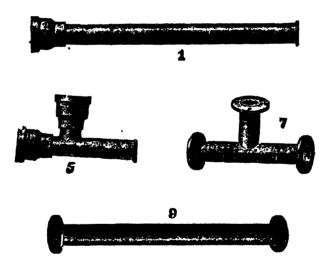


We have supplied these carts in large numbers for our up-country constituents, and they have been generally approved, both as to quality and workmanship. Every care is taken to make the night-soil carts complete in every respect and fitted with air-tight inlet and outlet valves. They are mounted on wheels with iron naves.

F	Plain Iron	Night-soil Carts,	200 gallor	ns complete	•••	•••		Rs.	175
	Do. Do.	Water Carts, Night-soil Carts,	do.	do. lock 100 ca	llone canac		• • • • •	••• ,,	165
14	Do.	Water Carts,	do.	do.	do.		•••	,,	105

Ga	lvanised Ir	on Night-soil Carts	, 200 gallon	s complete	•••	•••	Rs.	200
•	Do.	Water Carts	do.	do			,,	•
	Do.	Night-soil, singl	e bullock, 10	00 gallons capa	city	•••	*** ),	125
	Do.	Water Carts d	o. do.	do.	•••		رو ٠٠٠	105
Co	nservancy	Carts with open top	and sloping	g back, mounte	d on who	els of v	vood,	
•	with cast-in	on naves and iron	body. Con	aplete for	•••	•••	,,	145
W	oden Dus	t-bin Carts with loo	ose poles an	d standards of	best tea	ık, stro	ongly	
1	ramed and	l mounted on whee	ls of wood,	with cast-iron	naves.	Com	plete	
f	or		•••	• •••	•••	100	-	150

### CAST IRON PIPES.



The usual specification and condition for Cast Iron Pipe contracts are as follows:-

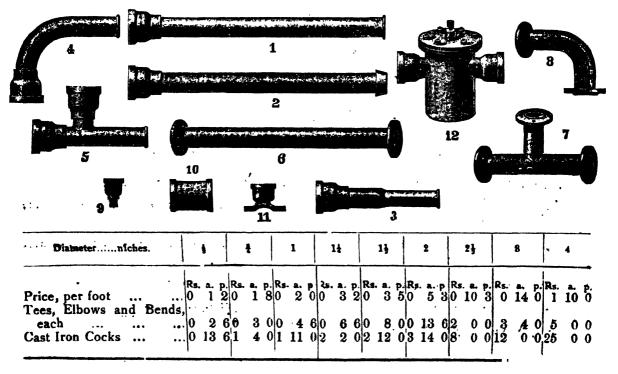
- 1. All pipes above 21" diameter are cast in dry sand moulds and made of uniform bore and thickness.
  - They are cast with socket downwards and with a sufficient head of metal to guarantee solidity, the head being subsequently cut off in the lathe.
- 8: The metal used is good grey metal and free from any defects.
- 4. All pipes are subjected to a pressure of 130 lbs. per square inch.
- 5. All pipes are coated with Dr. Smith's Solution.

Table of Sizes and Weights of Cast Iron Pipes.

Diameter of Pipe.	Length . or	of each Pipe Socket.	Thickness of Metal.	Depth of Socket.	Mean Weight of each Pipe.	Price per cwt. plain Socket Pipes. Delivered at any Railway Station, Boinbay.
Inches.	Feet	, Inches.	Inches.	Inches.	Cwt. qr. lbs.	
14	. 6		1/4	3	0 1 2	<u> </u> 7
2	l e	3	1/4	3	.0 1 14	
24	1 0		3/8	3	0 3 7	Rs. 4 14 0
<b>3</b>	1 0		3/8	3	1 0 10	
4	n		3/8	3	1 1 20	<b>17</b>
5	0		13/32	31/2	1 3 24	1 1
0	·   0	3 <del>1</del>	7/16	$3\frac{1}{2}$	2 1 27	
7	`` a	8 <del>1</del>	1/2	3 1	3 1 0	11
2	1 0		1/2	4	3 2 23	Rs. 4 6 0
9	0	_	9/16	4 .	4 2 24	7 13. 4 0 0
A	0	_	9/16	4	5 0 16	Pates warm accept
<u> </u>	•••	_			6 0 0	Rates vary accord
<u>l</u>		-	5/8	41		ing to fluctuation i
2	9	41	5/8	41	6 2 14	] market.

Bends, Tees and other special Pipes are always made with plain ends for lead joints.

#### WROUGHT IRON PIPES AND TUBES.



## Iron Pipes and Tubes-contd.

#### PIPES.

Hydraulic p	piping	of sizes	•••	•••	•••	•••	•••	Rs.	0 4	6 per lb	
Brass, best	, solid	drawn, of sizes	•••	•••	•••	•••	•••	,,	0 12	0 ,,	
Copper	do.	do.	•••	•••	•••	•••	•••	,,	0 13	0 ,,	

### Boiler Tubes, Iron Lapwelded, in 16 feet lengths-

```
Outside diameter ... ... 1\frac{1}{2}, 1\frac{3}{4}, 2, 2\frac{1}{4}, 2\frac{1}{2} inches.

Per foot ... ... Rs. 0-4, 0-5\frac{1}{2} 0-7, 0-7\frac{1}{2}, 0-8\frac{1}{2}

Outside diameter ... ... 2\frac{3}{4}, 3, 3\frac{1}{4}, 3\frac{1}{2}, 3\frac{3}{4}, 4 inches.

Per foot ... ... Rs. 0-9, 0-10, 0-11, 0-14, 1-0, 1-2
```

#### Branch Pipes for Pumps and Fire Engine-

```
Size ... ... ... Inches \frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 2, 2\frac{1}{2}, 3
Price, each ... ... Rs. 3, 4, 6, 7-8, 9, 11, 15, 30
```

#### LEAD PIPING.

Diameter	•••	•••	In	ches	$\frac{1}{2}$ ,	$\frac{3}{4}$ ,	1,	11,	11,	2,	21,	3,	31,	4
Weight per yard	3 <b>* *</b>	•••	•••	lbs.	5,	9,	12,	13,	16					
Price per cwt.	•••	•••		Rs.	14,	15,	16,	18		•				

#### RAIN WATER PIPES AND FITTINGS.

No. 1 Head, with Strong Ears. No. 2 Single Branch. Swan-neck. Common or Quarter Bend. Shoe, with Strong Ears.

# 34 Muncherji Dorabji & Co., General Engineers, Contractors, etc.

# Iron Pipes and Tubes-contd.

DiameterInches		2			21/2			3	- 1		31/2			4			5			6	
LengthFeet		6			6			6		(	6			6			6			6	
	Rs.	а.	p.	Rs	. a.	р.	Ŕs	. a.	p.	Rs.	a.	p	Rs	. a.	p.	Rs.	а.	p.	Rs	. a.	<u>р</u> .
Price per Pipe	0	14	0	1	0	0	1	4	0	1	8	0	1	12	0	2	9	0	3	10	0
Heads, each	1	1	0	1	2	0	1	4	0	1	7	0	1	12	0	2	5	0	2	11	0
Shoes do	0	10	0	1	10	0	0	13	0	1	0	0	1	<b>4</b> .	0	2	1	0	2	9	0
Offsets do	1	1	0	1	1	0	1	2	0	1	5	0	11	1	0	3	4	0	4	4	0

## DOUBLE BRASS FACED SLUICE VALVES.

Diameter	•••	•••	Inches	2,	$2\frac{1}{2}$ ,	3,	4,	5,	6,	9,	12
Price, each			Rs.	15.	16-8.	21.	28.	30,	40.	80.	125

# BRASS SELF-CLOSING VALVES, WITH COPPER BALLS.

٠	Diameter	•••	•••	•••	Inches	$\frac{1}{2}$ ,	<del>3</del> 4,	1,	11,	11,	2	
	Price, each	•••	•••	•••	Rs.	2,	3,	48,	9,	11,	25	
Hydrants se	crewed to Brig	ade ga	uge, w	ith Roa	id Box 2" di	ame	er	•••	•	е	ach R	s. 23
Stand Pipe	, Copper, doub	le brai	iched	<b>d</b> o	do	••	•	•••	•••	•••	<b>)</b> , )	, 33
Kennedy's	Self-closing W	ater F	osts		•••	••	•	•••		•••	و ، وو	, 38

# DOULTON'S GLAZED STONEWARE DRAIN PIPES.

These pipes are very superior, strong, and durable. They are being extensively used in the new drains in Bombay.

		Rate		
Diameter in Inches	4	6	9	12
Price per foot for straight lengths	0 5 0	0 7 0	0 14 0	1 10 0
Bends, each	1 12 0	1 15 0	2 11 0	<b>3 15</b> 0
Single Junctions, each	1 15 0	2 7 0	3 15 0	6 15 0
Syphon Traps, each	5 0 0	6 0 0		•••••

Stoneware Glazed Drain Pipes of other well-known makers are kept in stock. Prices on application.

# STEAM AND WATER FITTINGS.

#### BRASS STOP-COCKS-

Screwed for Iron Piping-

Diameter	•••	•••	***	Inches	<del>3</del> ,	1,	<del>3</del> ,	1,	11,	1½,	2
Price, each		•••	•••	Rs	1-8,	1-12,	2-4,	3-0,	8,	10-8,	21

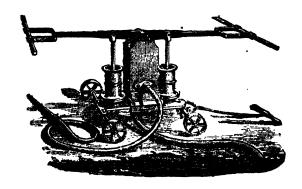
# STEAM AND WATER FITTINGS-contd.

BRASS COCKS			IKS-					•	
Diameter			•••	Inches	1 3	7	$1\frac{1}{4}$ , $1\frac{1}{2}$ .		
Price, each	•••	•••	•••	Rs.	1-8, 2-4	, 3,	8, 10-8		
Stop-Cocks, Lar	nbert's	Globu	lar-			,	•		**
Size	•••		•••	Inches	$\frac{3}{8}$ , $\frac{1}{2}$ ,	$\frac{3}{4}$ , 1	$1, 1\frac{1}{4}, 1\frac{1}{4}$	, 2, 2	1 2
Price, each	•••	•••	•••	Rs.	3-0, 3-8,	4-8, 6	s, 9, 11		4
Blow-off Cocks,	Gunme	etal Gla	and, fla	anged-					
Size	•••	•••	•••	Inches		•	3		
Price, each	•••	•••	•••	Rs.	25,	30, 6	5		
Blow-off Cock,			_		0	0.1			
Size Price, each	•••	•••	•••	Inches	2, 50,	$2\frac{1}{65}$			
	 Cl 1	***	•••	Rs.	•			c	
Blow-off Cock, 6	Giana s		i, tema 		r fron P	ipes—	11, 11	, 2	
Price, each			•••	Rs.			11-8, 15		
Gauge Glass, M						,	,	,	
Size	•••					5 <b>, 3</b>	, <u>7</u>		
Price per set		•••		Rs.	16, 18		í, 3³		
Gauge Glass, Sa	olid Bo	ttom, c	xtra s	trong-					
Size		•••		Inches	$\frac{1}{2}$ ,	$\frac{5}{8}$ ,	$\frac{3}{4}$ ,	$\frac{7}{8}$ ,	1
Price per set	•••	•••	•••	…Rs.	17,	22,	25,	35,	<b>5</b> 0
Gauge or Test-						_			
Size	•••	•••		Inches	$\frac{1}{4}$ ,	$\frac{\frac{3}{8}}{3-4}$ ,	$\frac{1}{2}$ ,	$\frac{3}{4}$ ,	1
Price, each	•••	•••	•••	Rs.	2-3,	J-4,	4-8,	7,	10
Set-Cocks— Price, each				- D.	0.10	9	20 6	· •	
				Rs.	2-12,	3,	3-8,	5, 9	
Steam-Plug scre			•	Inches	1	3	1 11	11	2
Price, each	•••	•••	•••	Rs.	$\frac{1}{2}$ . 3-4,	3, 3-8,	1, 1\frac{1}{6}, 6-0, 8-8,		18-8
Double Grease					,	,	· · · ,	,	
Size	••••	•••	•••	Inches	2,	$2\frac{1}{2}$ ,	3, 3	<u>1</u> , 4	
Price, each		•••	•••	…Rs.	8-8,	12,			
Single, with Coo	cks—								
Size	•••	•••		Inches	1 ½,	2, 7,	21,	3	
Price, each	•••	•••	•••	Rs.	6,	7,	. 10,	14	•
BRASS BIB-C	OCKS		•						
Screwed ends-	•						_		
Diameter Price, each	•••	• • •	•••	Inches	$\frac{1}{2}$ ,	₹, 1-14,	1, 1	\frac{1}{2},  \frac{1}{2}	$\frac{2}{17}$
•			···	Rs.	1-4,	1-14,	2-14, 6-	.8, 9,	17
SELF-CLOSIN		ass i	rr-C	OCK2-			•		
Screwed ends— Diameter	•			Inches	1	3	1		
Price, each	•••	•••	•••	Rs.	$\frac{1}{2}$ , 3-0,	#, 4-8	. 1 . 6		
-,			•••	,	<b>-</b> 0,	. 0	,		

# BRASS COUPLINGS FOR HOSE.

Diameter		.Size, I	nches	. 2,	$2\frac{1}{2}$ ,	8
Price per pair	*******		Rs.	5,	6, .	ż
Single, with nut screwed for Iro	on Pipe-					
SizeInches	$\frac{1}{2}$ ,	3,	1,	11,	11.	2
Price, eachRs.	0-12.	. 1-4.	1-12.	2.	2-8.	4

# SUNDRY STORES, &c.



ALPHABETS-	Rs. a.	BASKETS, whole Cane - Rs. a.
Steel-		Medium sizeper 100 30 0
SizeInch & & 1, & & 1, & & 1		Large, for coals, ,, 40 0
Price per setRs. 6, 7-8, 9, 12		BELLS, Brass—
Cast-iron Branding, with handle, per letter	0 12	Size
(Special Stamping and Branding Iron, &c., made to order.)		BITUMENper cwt. 15 0  BORINGS, cast-iron, for rust joints,
ANCHORS, English, up to 3 cwt.,		per cwt. 2 0
per ewt.	10 8	BORAXper lb. 0 5
<b>ASPHALTE</b> per ton 10	90 0	BRICKS, Fire (Scotch)per 100 10 8

Sundry Store	es, &c.—contd.
BRUSHES— Rs. a.	GRINDSTONES— Rs. a.
Tubes, steel-wire, 2" to 3"each 2 0	Diam. size, In. 18, 24, 30, 36, 42, 48
Paint, steel-wire, large, md., small	Price, each Rs. 4-8, 7-8, 15, 20, 35, 45
Price per doz. Rs. 13, 9, 5	Spindles, Bearing and Handles—
Tar, large handledper doz. 12 0 Whitewash flat 15 0	Price Rs. 3-8, 4-8, 5-8, 7-8, 9-11
Whitewash, flat, ,, 15 0 Wire, for cleaning fileseach 0 8	With Cast-iron Troughs-
BUCKETS-	SizeInches 24, 36
Galvanised, 13"per doz. 15 0	PriceRs. 55, 90
Light pattern, 9 0 CANVAS—	HANDLES, ASH—
Extra Crown, 24" wideper yd. 0 14	For Picks. Sledge Hand Hammers. Hammers.
Ordinary do, ,, 0 7	Price per
Common do , 0 4	doz. Rs. 5-8, 4-4 1-8
Do, red striped, 60" wide ,, 0 6 CLAY. Fire (ordinary and best), 1 12	
CLAY, Fire (ordinary and best), 1 12 per cwt. 2 4	Smalleach 1 0
CONDUCTORS, Lightning, Copper	Small 1
Rods—	LAMPS-
Screwed ends withper lb. 0 14	Hurricane, Hinks's pattern 2 8
Tape, 3" by 3" per ft. 1 0 Finials 9 0	Anchor, Copper
CRUCIBLES, best plumbago, per	Do. Iron, Japanned 5 0
number 0 34	LUBRICATORS-
(Each number will melt 1½ lbs. of Brass.)	Small, medium, large. Price per doz. Rs. 4-8 5-4, 7-8
DAMMERper barrel of 3 cwt. 10 0 EMERY—	<b>METAL</b> , Babbitsper lb. 0 10
Cloth per doz. sheets 0 6	•
Powderper lb. 0 3	NETTING—
riour, v 3	Galvanised Wire, 2" wide Size meshInches ½, ¾, 1, 1½, 2
Tarred, 30" by 40"per sheet 0 5	Price per yard Rs. 0-12, 0-9, 0-6, 0-5, 0-3
White, plain, for covering steam	PITCH, Stockholmper
pipesper sheet 0 9	barrel of 3½ cwt. 26 0
SizeInches \ & \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	POWDER—
Price per set Rs. 2-0, 3-0, 6-0	Disinfectingper cask 10 8
PULL	FYS
SPLIT PULLEYS TO SP	
Split Conical Bushes, from 11 to 2" Shafting	Rs. 2 8 each.
Do. do. 2½" to 3" do.	, 3 0. ,,
Do. do. $3\frac{1}{4}$ to $4$ do.	, 4 0 ,,
WESTON'S DIFFER	RENTIAL BLOCKS.
Rs.	R <sub>s</sub> ,
Tested to 10 cwt. with 50 feet chaineach 24	Tested to 60 cwt. with 50 feet chaineach 75
Do. 20 do. do. do , 34	Do. 80 do. do. do ,, 105
Do. 30 do. do. do ,, 40	Do. 100 do. do. do , 150
Do. 40 do. do. do , 50	•

# PULLEY BLOCKS.

					BLAG	JK 	ROF	PE	BLO	CK —	.S.									
Diameter Width of				In			5 78		6		7		8	ł	9 1 <sub>3</sub>	1	11 2 <del>1</del>		14 2‡	:
	•				Rs.	a	Rs.	a.	Rs.	a.	Rs.	a.	Rs.	а.	Rs.	a.	Rs.	a.	Rs.	a.
Snatch Single Double Treble Weight	which	  each	  sheave	   will	3 5 6	8 6 6	5 4 7 9	0 8 0 4	7 6 10 14	0 4 0 0	7 6 12 15	8 8 0 0	15 13 20 30	0 8 0 0	15 14 24 32	88	30 34 62 80	0	45 52 85 105	Ŭ
lift		•••	•••	cwt.	5	0	10	0	12	0	18	0	27	0	35	0	60	0	90	0
PULLE			, for P	unkl	18s—						_						_			
	Size Pric	e, eac		•••		••			ches s.		1, -6,		1½, 0-7,	•	1½, 0-10		0-1	4		
						j	JAC	K	S.							_				
			L	FTIN	IG A	NI	TR.	ΑV	ERSI	N(	i JA	CF	ζŚ.		·	•				
					Ti	RA	VERSI	NG	Јаск	S.										
To lift	•••	•••	•••	• •	, 6 to				ns.		0 tor	15.		12	tons	•	15	to	ns.	

Price	•••	•••	·Rs	. 40		45	50	(	<b>30</b>	70
Traverse	•••	•••		<b>6"</b>		6"	9"	13	2"	12"
Height of Jack	•••	•••	•••	<b>20″</b>	2	0"	24"	2	4" .	24"
			JACK	S, HA	LEY'S	, IRO	N BODY	<i>7</i> .		
Weight	•••	•••	4 to	ons. 6	tons. 8	3 tons.	10 tons.	12 tons.	15 tons.	20 tons.
Price, each	•••	•••	Rs. 4	0	48	<b>52</b>	62	80	<b>95</b>	140
Height of Jack	•••	•••	20	0"	28" ·	30"	32"	34"	36"	40"
•		T	ANGYI	e's P	ATENT	r Rof	E BLO	CKS.		
Diameter of Sh	eave	•••	•••	5	21,4	31,"	4"	43"	5″	6"
Size Rope-	•••	•••	•••	•••	18	1/2	<u>5</u> ₩ 8	. 3"	7 1	1"
Price per pair		•••	•••	Rs.	12	14	17	21	24	28
		Т	hese pr	ices in	ıçlude I	Rope fo	or 10 feet	lift.		

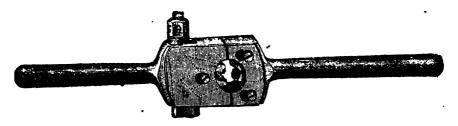
#### MOORE'S PATENT CHAIN BLOCKS WITH 100 FEET CHAIN.

The simplest and easiest worked Blocks in the market.

10 cwt.	20 cwt.	30 cwt.	40 cwt.
Rs. 65	95	110	125

# 40

# STOCKS, TAPS AND DIES.



WHITWORTH'S PATENT, comple			od Bo	xes	•				Rs.
To screw $1/16$ , $3/32$ , $\frac{1}{8}$ , $5/32$ , and $3/16$	inch				•••	•••	pe	r set	50
$\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , and $\frac{5}{8}$ inch	• • •			•••	•••		• • •	,,	70
$\frac{3}{4}, \frac{7}{8}, 1, 1\frac{1}{8}, \text{ and } 1\frac{1}{4} \text{ inches}$	•••	• • •	•••	•••	•••	•••	•••	,,	160
$\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , and 1 inch	•••	•••	•••	•••	•••	•••	•••	,,	120
$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ and $\frac{1}{2}$ inch	•••		•••		•••	•••	<i>.</i> · · · ·	,,	70
CHATWIN'S PATENT, complete in		ikwood l	30xes-	-			•		
To screw $1\frac{1}{4}$ , $1\frac{1}{2}$ , $1\frac{3}{4}$ , and 2 inches	•••	•••	•••	•••	•••	•••	•••	,,	225
$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{1}{1}, \frac{1}{8}, \text{ and } 1$		es	•••	•••	• • •	•••	•••	>>	205
$\frac{1}{4}, \frac{2}{8}, \frac{1}{2}, \frac{3}{8}, \frac{3}{4}, \text{ and } \frac{7}{8} \text{ in ch}$	•••	•••	•••	•••	• • •	•••	•••	,,	115
	•••	•••		•••	•••	•••	•••	"	110
$\frac{3}{4}, \frac{7}{8}, \frac{1}{1}, \frac{1}{8}, \text{ and } \frac{1}{4} \text{ inches}$		•••	•••	•••	•••	•••	•••	"	120
$\frac{3}{4}$ , $\frac{3}{8}$ , $\frac{7}{8}$ , and $\frac{1}{8}$ inches	• • •	•••	•••	•••	•••	•••	• • •	,,	110
$\frac{1}{4}$ , $\frac{2}{8}$ , $\frac{2}{8}$ , and $\frac{5}{8}$ inch	•••	•••	· · · ·		•••	•••	•••	,,	60
WHITWORTH'S fitted in Teak Case	s, Pa								
To screw $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{4}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , a	nd 1	inch	•••	•••		•••	•••	,,	200
$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{2}{8}$ , $\frac{7}{16}$ , $\frac{1}{4}$ , $\frac{2}{8}$ , $\frac{2}{8}$ , $\frac{2}{8}$ , $\frac{7}{8}$ , $\frac{1}{1}$	, 1 <del>1</del> , 1	1₫, 1⅔, a	nd 1½ i	nches	•••	•••	•••	,,	400
$1\frac{1}{8}$ , $1\frac{1}{4}$ , $1\frac{2}{8}$ , and $1\frac{1}{2}$ inches	•••	•••	•••	•••	•••	•••	•••	,,	200
$\frac{1}{2}$ , $\frac{1}{4}$ , and 2 inches	•••		···	·*	•••			"	250
CHATWINS, Whitworth Pattern-	Nith	Patent	Guide	Stock	, in	Teak	Cases,		
Paper and Plug Taps—									
To screw $\frac{3}{4}$ , $5\sqrt{16}$ , $\frac{3}{8}$ , $7/16$ , $\frac{1}{4}$ , and $\frac{5}{8}$ inc			. • • •	• •		• 7 •	<b>30 0</b>	,,	70
$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{6}$ , a	.nd ]	inch	•••	. • • •	•••	•••	• • •	,,	130
$\frac{1}{4}$ , $\frac{3}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	$, \frac{11}{8},$	$1\frac{1}{4}$ , $1\frac{3}{8}$ , a	and 1½	inches		•••	•••	,,	250
ENGINEERING Whitworth Standar		read—			•				41.
To screw $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{2}{8}$ , $\frac{7}{16}$ , and $\frac{1}{2}$ inch		•••	•••	🗢	•••	•••	• • •	,,	15
$\frac{5}{8}, \frac{3}{4}, \frac{7}{8}$ and 1 inch		• • •	•••	•••	•••	•••	•••	,,	25
$\frac{1_{1}}{8}, \frac{1_{1}}{4}, \frac{1_{2}}{8}, \text{ and } \frac{1_{2}}{8} \text{ inches}$		•••	•••	•••	• • •	•••	•••	,,	60
$\frac{3}{4}, \frac{7}{8}, \frac{1}{1}, \frac{1}{8}, \text{ and } \frac{1}{4} \text{ inches}$	•••	•••	•••		•••		•••	"	50
$\frac{1}{2}$ , $\frac{1}{8}$ , $\frac{3}{4}$ , $\frac{3}{8}$ , and 1 inch	•••		•••	. • • •	•••	•••	•••	,,	35
,, $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , and 1 inch ,, $\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{3}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , $\frac{5}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1	, 1½,	14, 18,	and 1	inches	•••	•••	•••	,,	90
$\frac{1}{2}$ ,	and 1	inch	•••		•••	•••	• • • •	,,	75
$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{1}{1}, \frac{1}{8}, \text{ and } 1$	🛓 inc	hes	•••	•••		***	•••	,,	80
$\frac{1}{4}$ , $\frac{5}{16}$ , $\frac{2}{8}$ , $\frac{7}{16}$ , $\frac{1}{2}$ , and $\frac{2}{8}$ in	ch	•••	•••	•••	•••		•••	,,	30
CHATWIN'S GAS in Teak Cases, T			g Taps	<del></del>		•			
To screw $\frac{1}{2}$ , $\frac{3}{4}$ , and 1 inch	•••	•••	•••	•••	•••		•••	,,	50
$\frac{11}{4}$ , $\frac{11}{2}$ , and 2 inches		•••	•••	•••	•••		•••	,,	105
$\frac{1}{4}, \frac{3}{4}, \frac{1}{1}, \frac{1}{4}, \frac{1}{4}, \frac{1}{1}, \frac{1}{4}, \frac{2}{4}, \text{ and}$	. 2 <del>1</del> i	nches	•••	•••	•••	• •	•••	,,	225
$\frac{1_{1}}{4}, \frac{1_{2}}{4}, \frac{1_{3}}{4}, \text{ and } 2 \text{ inches}$	•••	•••	***	•••	• • •	•••	•••	,,	125
Complete in Boxes—		′							
To screw $\frac{1}{4}$ , $\frac{2}{8}$ , $\frac{1}{4}$ , $\frac{2}{8}$ , and 1 inch	•••	•••	•••	•••	1	•••	•••	,,	60

•	Stocks,	Taps,	and	Die	S-cor	td.		•	
Wrapped in sets in Pa	aper—								Rs.
To screw 1, 1, and	inch	•••	•••	•••	•••	•••	•••	per set	10
. l. #. and	I inch	***	•••	•••	•••	•••	•••	••• ,,	25
" 11 11, and	d 2 inches	•••	•••	•••	•••	•••	•••	••• ,,	<b>6</b> 0
$\frac{2}{3}$ and 3 i	nches	•••	•••	•••	•••	•••	•••	٠٠٠ ,,	125
DOUBLE-HANDED		PLATE	, with	Taper	and Pl	lug Taj	p <b>s</b>		
To screw 1, 3, and 1	inch	10.0	•••	•••	•••	•••	•••	per set	10
$,, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \epsilon$	and 🖁 inch	•••	•••,	•••	•••	•••		••• ,,	25
,, land find		•••	•••	•••	•••	•••	•••	••• ,,	10
,, § and ¾ inc		•••		•••	•••	•••	•••	••• ,,	15
$,, \frac{3}{2}$ and $\frac{7}{8}$ in		•••	•••	•••	•••	•••	•••	••• ,,	18
,, 🖟 and line	ch	•••		• • •		•••	•••	,,	20

# CHAINS, WIRE ROPES, &c.

SINGLE-HANDED SCREW PLATES -

With Taps, 18 sizes, notched

					Shor	t Link T	ested.		Specia	ial Best Crane.			
	Sizes	•			Test.		Price per cwt.		Γest.		Price per cwt		
				Tons.	cwt.	qrs.	Rs.	Tons.	cwt.	qrs.	Rs.		
1		•••	٠,,	0	15	0	15				20		
å				1	12	2	14	2	8	0	16		
į	•••		••.	3	0	0	11	4	0	0	13		
ě	•••		٠,.	4	12	2	10-12	6	<b>2</b>	0	12		
ä	•••	•••	•••	6	15	0	10	9	0	0	11		
ž	•••		••.	9	2	<b>2</b>	9	12	3	0	11		
i	•••		٠	12	0	0	9	16	0	0	10		

The breaking load is about double the test, and the safe working load should not exceed half the test above given.

#### GALVANIZED WIRE ROPES.

. Inches.	Circui	mierence.			Price per cwt. Rs.	Inches.	Circun	ference.			Price per cwt. Rs
11		• • • •			27	3		•••	•••	•••	22
14			•••		25	$3\frac{1}{2}$	•••	•••	•••		21
$2^{T}$	•••				24	4	•••	• • •	.,.		21
$2\frac{1}{2}$	•••	•••		·	23	41/2		•,••	•••		21

Supplied in coils of about 600 feet; when longer lengths are required they should be specially ordered.

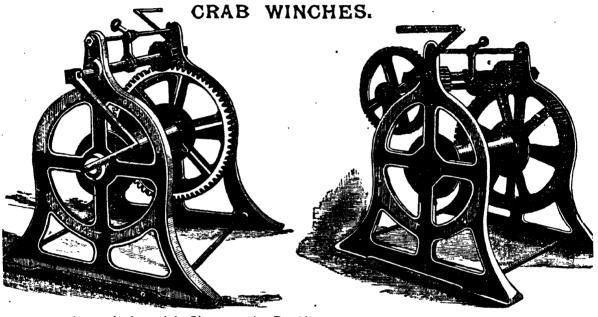
Oiled

# Chains, Wire Ropes, &c .-- contd.

MANILLA ROPE.

In coils of 600 feet.

III CO	113 01	000 10				
Circumference, 1 to 6 inches Shorter lengths, cut from coils	•••	•••	•••	•••	•••	Rs: 36 per cwt.
Snorter lengths, cut from cons	• • •	• • •	•••	•••	. ***	, ,, ,,
TARRE	D HE	EMP F	ROPE.	,		
In coi	ls of	600 fe	et.			
Circumference, 1 to 6 inches	•	••		•••	•••	Rs. 28 0 per cwt.
Shorter lengths, cut from coils		••			•••	,, 29 0 ,,
Plain Coir Rope, any size or length	٠.,	••	•••	•••	•••	,, 9 0 ,,



2-ton, single, weight 7	cwt., price Rs. 90.	•	
4-ton, double.	6-ton double.	6-ton single.	10-ton double.
Weight, 83 cwt.	13 cwt.	_	•
Price Rs. 150	200	160	260
•	The same of the specific property and the same of the		

# BELTING.

ANTO-MODDED.							
Size	Inches 2	2 <del>1</del>	3.	3 <del>1</del>	4	5	6
Price per foot	Rs. 0-8	0-10	0-12	0-141	1-2	1-12	2-4

### LEATHER-

Size	Inches ½ to 6
Price per lb.	· Rs. 1-8
Size	Inches 6 to 9
Price per lb.	Rs. 1-12
n.	April a star from Atriba

ďο.

do.

Do., double size...from 4 inches to 9 inches. Price per lb. ... Rs. 1-12

#### BELTING-contd. LACES-Ordinary ...per lb. Rs. 0 10 Best ... ٠.. ... ,, HIDE, best SCREW-FASTENER ...per doz. BOLTS AND NUTS. HEXAGONAL HEAD AND NUTS, Square Head and Square Nuts; Square Head, Neck, and Hexagonal Nuts; Snap Head, Square Neck, and Hexagonal or Square Nuts. Size ... ...Inches ₹, 1<sub>2</sub>, ... Rs. 16, 22, 15. 12, 12 Price... CHEESE-HEAD ..Inches $\frac{1}{4}$ , $14 \times 3$ , 2 and upwards $\times 3$ Size ... 7-6 per doz. Rs. 27 per cwt. Rs. 21 per cwt. ... Rs. 0-5, Price... ...Inches $\frac{1}{2}$ , <del>3</del>, <del>7</del>, 1 Size ... ۹... 15, 13, Price... ... Rs. 17, 13. 13 Extra price charged for all extra lengths. GALVANIZED for Roofs-...Inches $\frac{1}{4} \times \frac{3}{4}$ , 1-8. $\dots$ Rs. 1.6, Price per gross. TOWER Iron-...Inches 10 4, Size ... 3-8, Price per doz. pair ... Rs. 1-11, 2-3, 2-10, 4, 4-6 18. 20, 24 Size ... ...Inches 12, 14, 16, 8-8, 11. 12. 14 5-2, 10. Price per doz. pair ... Rs. BALANCES. SPRING-Salter's, round dial-100. 200 50. …lbs. Weight, with Hook only 6-8 Price, each ... ... ...Rs. 4-8, 5, Family Scale, on hand-30, 50 ...lbs. 25, Weight ... 8, 10 ...Rs. 8, Price, each ... ... For Locomotive or Portable Engines-...Rs. 14 60 lbs. and 100 lbs. pressure, each... SCALES. BEAM With Platforms and Chains-3' 6", 4', 4' 6", 6' 2' 6". ... Feet 2'. 3', 90. 35, 15, 70. 150 ...Rs. 25, 30. Price, each... 20, BELLS. Rs. 0 14 For Ships ...per lb. ,, 3 to 10 ...each For Stations ...

11

# CEMENTS.

GENERAL RULES FOR USING PORTLAND CEMENT	GENERAL	RULES	FOR	USING	PORTLAND	CEMENT.
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- 1. Portland Cement improves by age, if kept from moisture.
- 2. The longer it is in setting the stronger it will be.
- 3. At the end of a year, 1 of cement to 1 sand is about \$\frac{2}{4}\$ths the strength of neat cement;

  1 to 2 about \$\frac{1}{2}\$ strength; 1 to 3 about \$\frac{1}{4}\$th; 1 to 5 about \$\frac{1}{4}\$th.
- 4. The cleaner and sharper the sand the greater the strength.
- 5. The less water used in mixing up the cement the better.
- 6. Bricks, stones, &c., used with cement should be well soaked.
- 7. Cement setting under still water will be stronger than if kept dry.
- 8. Blocks of brickwork or concrete should be kept in water until required for use.
- 9. Salt-water is not as good as fresh for mixing cement.
- 10. Bricks of 1 cement to 4 or 5 of sand are equal to picked stock bricks.
- 11. When concrete is used, a current, either by pumping or otherwise, will carry away the cement and leave only the clean ballast.

White Brothers' Knight Bevan	PORTLAND-			, , , , , ,									
CHAINS		•••	•••	•••	•••	•••	•••	р	rice	per ca	sk…Rs.	9	8
CHAINS		• • •	•••	•••	•••	•••	•••			_		8	
## FILES:    FILES:	Ordinary	• • •	•••	•••	•••	•••	•••	•••	,,	"	"	7	8
### FILES:    FILES:			,	C	HAII	NG							
FILES.  FILAT, half-round, round and square— Size	DD ACC C. I			O.		ND.					11 10	^	7 -
FLAT, half-round, round and square—  Size Inches 6, 8, 10, 12, 14, 16 18  Bastard, price per doz Rs. 2-10, 3-8, 5-0, 7-0, 10, 14, 20  Smooth , , 3-8, 4-14, 7-0, 9-0, 12, 18, 27  2nd Cut , , 3-6, 4-6, 6-4, 8-8, 12, 17, 25  PARALLEL, safe edge—  Size Inches 6, 8, 10, 12, 14, 16, 18  Bastard, price per doz Rs. 3-8, 4-12, 7, 9-0, 12, 18, 27  Smooth , , 4-12, 6-6, 9, 11-8, 17, 24, 2nd Cut , , 5-0, 7-0, 10, 13-0, 19, 25,  TRIANGULAR OR TAPER SAW—  Size	DEASS, for Lamps	•••	•••	•••	•••	•••	•••	•••		per	ıbKe.	V	19
Size        Inches 6, 8, 10, 12, 14, 16 18       18         Bastard, price per doz.        Rs. 2-10, 3-8, 5-0, 7-0, 10, 14, 20         Smooth         3-8, 4-14, 7-0, 9-0, 12, 18, 27         2nd Cut          3-6, 4-6, 6-4, 8-8, 12, 17, 25         PARALLEL, safe edge—         Size         Inches 6, 8, 10, 12, 14, 16, 18         Bastard, price per doz.        Rs. 3-8, 4-12, 7, 9-0, 12, 18, 27         Smooth         4-12, 6-6, 9, 11-8, 17, 24,         2nd Cut         5-0, 7-0, 10, 13-0, 19, 25,         TRIANGULAR OR TAPER SAW—         Size          8, 4, 5, 6, 8, 10, 12         Price per doz         Rs. 1-8, 1-10, 2, 2-10, 8-8, 6-8, 9-0         GULLETTING—         Size             Price per doz.             Size              Price per doz.				F	ILE	S.		•					
Bastard, price per doz Rs. 2-10, 3-8, 5-0, 7-0, 10, 14, 20 Smooth ,, ,, 3-8, 4-14, 7-0, 9-0, 12, 18, 27 2nd Cut ,, ,, 3-6, 4-6, 6-4, 8-8, 12, 17, 25  PARALLEL, safe edge—  Size		nd and	squar	e				•					
Smooth 2nd Cut 3nd Cut													
2nd Cut       """       """       3-6,       4-6,       6-4,       8-8,       12,       17,       25         PARALLEL, safe edge—         Size       """       """       """       10,       12,       14,       16,       18         Bastard, price per doz.       """       Rs.       3-8,       4-12,       7,       9-0,       12,       18,       27         Smooth       """       """       4-12,       6-6,       9,       11-8,       17,       24,       """         2nd Cut       """       """       5-0,       7-0,       10,       13-0,       19,       25,       """         TRIANGULAR OR TAPER SAW—         Size       """       """       """       4,       5,       6,       8,       10,       12         Price per doz.       """		z	Rs.										
PARALLEL, safe edge—         Size	* * * * * * * * * * * * * * * * * * * *	•••	,,										
Size          la       12,       14,       16,       18         Bastard, price per doz.        Rs.       3-8,       4-12,       7,       9-0,       12,       18,       27         Smooth          4-12,       6-6,       9,       11-8,       17,       24,          2nd Cut          5-0,       7-0,       10,       13.0,       19,       25,          TRIANGULAR OR TAPER SAW—         Size         lnches       3,       4,       5,       6,       8,       10,       12         Price per doz,         Rs.       1-10,       2,       2-10,       3-8,       6-8,       9-0         TAPPING OR WHEEL TAP—         Size              12,       14,       16       12         Price per doz.                  .	•		,,	3-6,	4-6,	6-4,		8-8,		12,	17,		25
Bastard, price per doz Rs. 3-8, 4-12, 7, 9-0, 12, 18, 27 Smooth ,, ,, 4-12, 6-6, 9, 11-8, 17, 24, 2nd Cut ,, ,, 5-0, 7-0, 10, 13-0, 19, 25,  TRIANGULAR OR TAPER SAW— Size Inches 3, 4, 5, 6, 8, 10, 12 Price per doz Rs. 1-8, 1-10, 2, 2-10, 3-8, 6-8, 9-0  GULLETTING— Size Rs. 2-8, 3-6, 5-8, 8-0  TAPPING OR WHEEL TAP— Size Rs. 7-8, 10, 12 Price per doz Rs. 7-8, 10, 14  FISHBACK— Size Rs. 7-8, 10, 14  Fishback— Size Rs. 9, 13, 18  WOOD RASPS, half-round— Size	PARALLEL, safe edg	ge			•								
Smooth ", ", 4-12, 6-6, 9, 11-8, 17, 24, 2nd Cut ", 5-0, 7-0, 10, 13-0, 19, 25,  TRIANGULAR OR TAPER SAW—  Size	Size	I	nches	6,		10,		12,		14,	16,		18
2nd Cut       ,,,       5-0,       7-0,       10,       13.0,       19,       25,          TRIANGULAR OR TAPER SAW—         Size         lnches       3,       4,       5,       6,       8,       10,       12         Price per doz.         Rs.       1-10,       2,       2-10,       3-8,       6-8,       9-0         GULLETTING—         Size          Inches       4,       6,       8,       10         Price per doz.           Rs.       2-8,       3-6,       5-8,       8-0         TAPPING OR WHEEL TAP—         Size	Bastard, price per do	z	Rs.	3-8,			•	9-(),		12,	18,		27
TRIANGULAR OR TAPER SAW—  Size		•••	,,	4-12,		9,		11-8,		17,	24,		•••
Size         Inches       3,       4,       5,       6,       8,       10,       12         Price per doz.         Rs.       1-10,       2,       2-10,       8-8,       6-8,       9-0         GULLETTING—         Size           Rs.       2-8,       3-6,       5-8,       8-0         TAPPING OR WHEEL TAP—         Size          Rs.       7-8,       10,       12         Price per doz.          Rs.       7-8,       10,       14         FISHBACK—         Size           Rs.       9,       13,       18         WOOD RASPS, half-round—         Size             10,       12,       14	2nd Cut ",	•••	"	5-0,	7-0,	10,		13.0,		19,	25,		•••
Price per doz Rs. 1-8, 1-10, 2, 2-10, 3-8, 6-8, 9-0  GULLETTING— Size Rs. 2-8, 3-6, 5-8, 8-0  TAPPING OR WHEEL TAP— Size Rs. 7-8, 10, 12  Price per doz Rs. 7-8, 10, 14  FISHBACK— Size Rs. 7-8, 10, 14  Fishback— Size Rs. 9, 13, 18  WOOD RASPS, half-round— Size		TAPE	R SA	<b>W</b> —									
Price per doz Rs. 1-8, 1-10, 2, 2-10, 3-8, 6-8, 9-0  GULLETTING— Size Rs. 2-8, 3-6, 5-8, 8-0  TAPPING OR WHEEL TAP— Size Rs. 7-8, 10, 12  Price per doz Rs. 7-8, 10, 14  FISHBACK— Size Rs. 7-8, 10, 14  Fishback— Size Rs. 9, 13, 18  WOOD RASPS, half-round— Size					4,	5,		6,		8,	10,		12
Size           Inches       4,       6,       8,       10         Price per doz.         Rs.       '2-8,       3-6,       5-8,       8-0         TAPPING OR WHEEL TAP—         Size          Inches       8,       10,       12         Price per doz.          Rs.       78,       10,       14         Fishback—         Size           12,       14,       16         Price per doz.          Rs.       9,       13,       18         WOOD RASPS, half-round—         Size              12,       14	Price per doz	•••	Rs.	1-8,	1-10,	2,		2-10,		<b>3-8</b> ,	6-8,		9-0
Price per doz	GULLETTING—												
Price per doz Rs. 2-8, 3-6, 5-8, 8-0  TAPPING OR WHEEL TAP—  Size Rs. 7-8, 10, 12  Price per doz Rs. 7-8, 10, 14  FISHBACK—  Size		•••	•••	,	I1	nches		4,		6,	8,		10
Size           lnches       8,       10,       12         Price per doz.          Rs.       7.8,       10,       14         FISHBACK—         Size           lnches       12,       14,       16         Price per doz.          Rs.       9,       13,       18    WOOD RASPS, half-round— Size <p< td=""><td>Price per doz</td><td>•••</td><td>•••</td><td>•••</td><td>•••</td><td>Rs.</td><td>•</td><td>2-8,</td><td>3</td><td>8-6,</td><td></td><td></td><td>8-0</td></p<>	Price per doz	•••	•••	•••	•••	Rs.	•	2-8,	3	8-6,			8-0
Price per doz Rs. 7 8, 10, 14  FISHBACK— Size	TAPPING OR WHI	EEL T	AP-				•				•		
Price per doz Rs. 7-8, 10, 14  FISHBACK— Size	Size			•••	Ir	nches		8.		10.	]	12	
FISHBACK—         Size            l2,       14,       16         Price per doz.          Rs.       9,       18,       18         WOOD RASPS, half-round—       Size           lnches       8,       10,       12,       14		•••	=										
Size            l2,       l4,       l6         Price per doz.          Rs.       9,       l8,       l8         WOOD RASPS, half-round—Size           lnches       8,       l0,       l2,       l4	FISHBACK-					•		,		,			
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WOOD RASPS, half-round— Size lnches 8, 10, 12, 14		•••		•••									
Size lnches 8, 10, 12, 14				•••		- 101		~ <b>,</b>		,	•		
11, 11, 11, 11, 11, 11, 11, 11, 12, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14	Cima				1.	chee		Q	34	)	10		14
	Price per doz	•••	•••	•••				.12,			7,		10

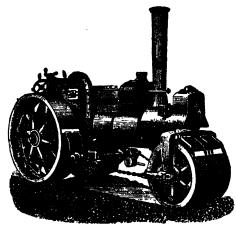
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GLASSES, best, t				essure-	-,	5	9	7 84	101	
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STEAM PRESSI			ırdon's Dia	Patent	t 5.	6. 7.	from 80	to 200 lbs	nreccu	<b>T</b> A
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VACUUM, Bourde	on's Pat		•••	•••	•••	•••	• •••	Inches	6,	7
Price, each	•••	•••	•••	•••	•••	•••	• •••	Rs.	27,	30
BIRMINGHAM	WIRE	GAU	дE	•••	•••	•••	• •••	each	Rs. 8	3-8
•				HIN	GES	S.			•	
BRASS Butt —										
Strong— Size	•••	<b>I</b> n	ches	-2,	$2\frac{1}{2}$ ,	3,	3 <u>1,</u>	4,	ŏ, (	6
Price per pair	•••	•••	Rs.	0-3,	0-4,	0-7,	0-10,	0-14, 1-	12, 2	-8
Ordinary— SizeI		1‡,	11,	1¾, 0-2,	2,	3,	31,	4,	5,	6
Price per pair IRON Butt—	Rs.	01-6,	0-2,	0-2,	0-2	2, 0-5,	0-7,	0-9,	1, 1-	12
Strong-								•		
. Size Price per pair	•••	•••	I	nches Rs.	2, 0-2,	$2\frac{1}{2}$ , 0-2,	<b>3,</b> 3	1, 4, 3-6, 0-4-6,	5, 0-7	6 0-10
Ordinary—	•••								•	0-10
Size Price per pair	•••	In	ches Re	2, 0-0-9	$2\frac{1}{2}$ , 0-1.	3, . 0-1-3.	$3\frac{1}{2}$ , 0-1-6.	4, 0 <b>-</b> 2,	5, 0- <b>3,</b> (	6 )-5
Trice per pair	•••	•••	143.	0-0-0	, 0.1	, 010,	, 0.2.0,	· · · · · · ·	o- <b>o,</b>	<b>7-0</b>
<b>7</b> 4 6 6	•			HOO	DKS,	3				
BRASS— Hat and Coat—			Ordin	arv	Med	lium	Best			
Price per doze	n	R	s. 5-0	),	6-6	0,	9-0			
Lamp, screwed- Price, each		Rs	Sm: s. 0 <b>-</b> 3			dium ·5,	Large 0-6	2		
I fice, caes	***	.,,		,	·	•,				
			OH.	SE	PIP	ES.				
INDIA RUBBER	k, Deliv	erv	_					N1 0	٥.	
SizeInc Price per foot	hes 1	, <b>‡,</b> ·5. 0-8.	0-10-	6.0-12	-6, 1,	2, 1,	$\frac{24}{1-4}$ , $\frac{2}{1}$	2½, 3, 6, 1 <i>-</i> 14	31, 2.4.	4 8
Price per foot Suction with spi	tal wire	in it. P	er foot	Rs. 1	, 1-4	, 1-6,	1-10, 1	-12, 2-8	2-13	3,
LEATHER, Cop	per-rive	tea, De	livery-		•••	Incl	hes	2, 2	<del>]</del> ,	3
Price per foot	•••	•••	•••	•••	•••	F			_	1-4
SizeIn	oven— ches	<del>1</del> ,	<del>3</del> ,	1,	11,	11,	2, 2	3, 3,	8 <u>1,</u>	4
Price per foot	Rs. (	)-2,	0-2-,	0-2-6,			)- <b>4</b> , 0-	6, 0-7-6,	0.12,	
12										

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Munci	herji	Dor	abji	& Co.,	Gen	eral	Engi	ineers	, Cont	tracto	ors,	etc.	47
IRON-					N.	AIL	4S.			***************************************	,		
Size		Incl	.ee 1	1	1 1	1	9	ລາ	9	9.1	4	=	,
Clasp Cut						<u>1</u> ,	2,	2 <u>1,</u>	3,	3 <u>₹</u> ,	4,	5,	6
			Δ.			15,	14,	13,	13	•••	•••	•••	• •
Do. Wr Galvanize		"	,, 2	0, 2	1, 2	21,	20,	17,	17	•••		•••	•
Roofs	•••	"	"			•••	20,	20,	20	***	•••		
Rose, flat		,,	,,	18	3, 1	.3,	10 8,	10-4,	10-4,	9,	9,	8-8	, • 8
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BRASS-H						ires-		٠,				_	
			nches	$1\frac{1}{2}$ ,	2,	•	$2\frac{1}{2}$ ,	3,	$3\frac{1}{2}$ ,	4,	,	5,	6
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HEXAGO	N an	d sc	<b>UAR</b>	E TA	PPED	, for							
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Size			•••	_	nch }		<del>§</del> ,	$\frac{3}{4}$ ,	8,	1,	1		0
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Neatsfoot		•••		•••	•••	•••			<b>)</b>		"	,,	3 1
Colza			•••	•••	•••				,		,,	••• );	3
Rangoon		•••	•••	•••	•••		•••		,		,,	,,	3
Sperm	•••	•••	•••	•••	•••	•••		•	,		"	,,	6
Turpentin		•••	•••		•••			•••	,		"	,,	2
Rape	•••	•••	•••	•••	•••		•••	•••	او		"	••• ,,	2
Cocoanut		•••					•••	•••	,	***		••• ,,	17
Castor	•••	• • •	•••	•••	•••	•••	•••	•••	21	-	,,	••• ',,	15
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MOIST-					PA	IIN	TS.						
White Lea	ad		***	•••	•••	•••	•••	•••	•••	pe	r cwt.	Rs.	12
Black	- <del>-</del>	•••		•••	•••	•••	•••	•••	•••	-		••• ,,	10
Red	•••		•••	•••	•••	•••	•••	***	•••			••• •,	10
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Oxide													

				P	AIN	TS-	contd.		•					,
	· Chocolate	•••	•••	•••	•••	•••	•••	•••	•••	pe	er lb	.Rs.	11	0
	Green	•••	•••	•••	•••	•••	•••	•••	•••	•••	,,	,,	11	0
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T.C			<b></b> 0,	10-0,		0,	120,	11	<b>0</b> ,	10-0,	10-	· , .	Τ.	)-U
		ches	<del>1</del> .	<del>3</del> .	1.	<b>5</b> .	3.	7	•	1				
				SÖ,	25.	23.	22.	2	Ź.					
			•	•	•	•	•		•	De	r cwt	Rs.	21	0
	GALVANIZ	ED f	or roofs	•••	•••			•••		•••				0
	COPPER an	d W	ASHE	RS, 1"	and 3	// K · · ·			•••	pe	-:-		0	12
				i i	•••	• • • •	•••		•••				1	
				-	<del></del>							••		

#### ROAD ROLLERS.



We have supplied C. I. Rollers with open or close ends. We would recommend close end Rollers to be used where heavy weight cannot be carried with safety over bad roads.

Open or close ended Rollers with pole and yoke complete from 40 cwts.

•			and upwards@ K	s. 0-0	per cwt.
· Do.	do.	do.	from 30 to 40 cwt. "	5-8	· >1
Do.	do.	do.	from 20 to 30 ,, ,,	6-0	,,
Do.	do.	do.	under 20 ,, ,,	7-0	,,

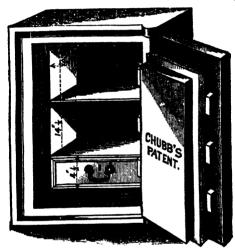
For Steam Road Rollers-Prices on application.

# HAND ROLLERS FOR LAWNS.

Rs.	each	•	4, 34,	5, <b>4</b> 3,	40		8 <b>,</b> 60 <b>,</b>	10 75 w	ith ha	ndle complete.	
COIR-	-					ROI	PES	L			
Bes		•••	•••	•••	•••	•••	•••	•••	***	per cwtRs.	9
Ora	inary	• • •	•••	•••	•••	•••	•••	•••	***	,,	8

# SAFES.

# CHUBB'S FIRE & THIEF RESISTING SAFE.



No. $3-22$ in. $long \times 17$ in. wide $\times 16$ in. deep, 1 drawer and shelf			
	Rs	. 230	0
0.00000000000000000000000000000000000	,,	275	0
10 20 '	,,	000	Ô
15 00	,,		•
	,,		0
	,	<b>465</b>	0
" $31-38$ in. " $\times 26$ in. " $\times 23$ in. " 2 drawers and 2 shelves,	with 2		
	et locks. "	660	Λ
41 99 :	,, iocks	000	v
" $41-33$ in. " $\times 29$ in. " $\times 23$ in. " 2 drawers and partition, 2	distinct		
locks with doubl	e doors	700	Λ
42 90 :- 293 :- 299 :- 0 1 19 monthly in a	O la ala	•00	v
" $43-38$ in. " $\times 33$ in. " $\times 23$ in. " 2 drawers and 2 partitions,	ZIOCKS		
with doubl	e doors	875	0
MILNER'S Fire and Burglar proof-	,,		•
Size Inches 24, 30, 36			
Dain Da 100 140 160			
Size          lnches       24,       30,       36         Price          Rs.       120,       140,       160			
SHEETS.			
ASBESTOS, for Steam Joints SHEETS.	.per lb. Rs	. 0	9
ASBESTOS, for Steam Joints SHEETS.	•		
ASBESTOS, for Steam Joints	· · ,, ,,	0	7
ASBESTOS, for Steam Joints	·	0	7 8
ASBESTOS, for Steam Joints	. ,, ,, er cwt. ,,	0 0 12	7 8 8
ASBESTOS, for Steam Joints	. ,, ,, er cwt. ,,	0 0 12	7 8 8
**************************************	. ,, ,,	0	7 8

# 50 Muncherji Dorabji & Co., General Engineers, Contractors. etc.

## SHEETS-(contd.)

INDIA RUBBER—					•	-						
Vulcanized, White or	Grey-											•
Ordinary good	•••	•••	•••	•••	•••	•••	•••	p	er lb.	. Rs.	1	2
Best for Valves	. • • •	•••	•••	•••	•••	•••	•••	•••	,,	"	1	8
Red ordinary good	•••	•••	•••	•••	•••	•••	• •••	•••	"	"	2	0
Best soft	•••	•••	•••	•••	•••	•••	•••	•••	,,	,,	2	12
· Insertion with Canva	s ply,	in—_										
White or Grey	•••	•••	•••	•••	•••	•••	•••	•••	,,	,,	1	<b>4</b> 8
Red	•••	•••	•••	•••		•••	•••	•••	-	,,	2	8
_												

# SCREWS, WOOD IRON, per Gross—

Nos.	1	in.		2	in.		1 i	n.	1:	i in	٠.	1	l ir	1.	14	in.		2 in	•	2	in i	$\cdot  $	$2\frac{1}{2}$	in.		<b>8</b> i	a.	3	in	.	<b>4</b> i:	11.
	Rs.	a.	p.	Rs.	a.	p. I	ls. a	. p.	Rs	a.	p.	Rs	. a	p.	Br.	a. ŗ	). 	Rs, 8.	p.	Rs	. a.	p	Rs.	a. 1	. R	в. a	. p.	Rs	. 8.	p. R	8. 8	ı. p
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7	0	4	6	0	5	3 0	) (	B (										1		ľ		-								1		
8	0	5	0	0	5	9'0	) (	3 3	0	7	3	0	8	0																		
9	0	5	3	0	6	3 (	) (	3 6	0	7			8							l		- 1										
10	0	6	0		6	6'0	) (		0	8	3	0	8	9	0 :	10	0	11	0	1								ŀ				
11	1			0	6	9 (	) ;	7 8	0	8	9	0	9					12		0	14	0										
12	1			0	7	3 (	)	8 3	0	9	6	0	10	6	0 :	12	0	14	0	0	15	0	1		0 1		10					
13	1					(	) !	9 (	0	10	6	0	12	0	0	14	0	15	0	1	1	0	1		0 1		6					
14	l					(	1	0 (	0	12	0	0	14	0	0	15	0	1 1	0	1	3	6	1	4	0 1	9	0	1	13	0		
15	1					- 1			0	14	0	0	15	0	1	1	0	1 3	0	1	4	0	1	6	6 1	10	0 (	2	0	0		
16						- 1			0	15	0	1	1	0	1				0	1	в	6	1	9	0 1	1	• 0	2	4	02	: :	9 (
17	1					ļ						1			1	4	0	16	6	1	9	0	1	10	0 2	(	0 (	2	8	0.2	1	3 (
18	1														1	в	6	1 9	0	1	10	0	1		02	4	l U	2	13	03		2 (
19						- 1						l			1		- 1						1	13	6 2		76	3	1	- 1 -		6 (
20	1					- 1						-			1					1			2		02		3 0	3	6	03		ŏ
						- 1									1		1								-						_	- '

# SCREWS, BRASS, per Gross-

4 0 5 0		7	i. I	Rs.	. a.	p.	Re			_												<u> </u>					
- 1 :			771			_		a,	p.	Rs	. 8.	p.	Rs.	<b>a.</b>	p.	Bę.	8.	p.	Rs.	, a.	р.	Rs.	a	p	Rs.	a.	p.
5 0			11	0	9													- 1			- 1	l					
7 1		8	3		10		ì					1									- 1	ı			1		
6 0		9	2		11			14		1	1	1			- 1			1			- 1	i					
7 0	3	lO	6	0	13	2	0	15	9	1	2	10									- 1	ł					
8 0	1	11	10	0	14	0	1	1	6	1	5		1	8	6'						- 1	l					
9 0	1	13	2	0	15		1	3	3	1	7	2		11	2	1	15	1				l		- 1	1		
		14	5	1	1			5	5		9	10	1	14	2	2	2	7	2	6	11	ł					
11				1	4	. 2		7	8	1	12			ī	3	2	6	1	2	10	10	i			l		
12				ī		9		10		1 -	15			4	9		10	ō		15		1 _	9	9			
13				-	_	_	-		Ī	2			1		8	-	14			4	1	3		5			
14							1			-	•	·		13	1	3	ŝ	2		9		4	5	7	5	1	10
15				l			1			1			-	10	٠.	3	<b>3</b> 8	5					-	໌	-	9	
				l			1			1			l			J	0	v	0	10	U	4	12	2		7	
16										1															6	1	2

SQUARE—		S	HC	VE	LS.							
Steel		•••						per	doza	. I	2 1	9 0
Steel ends				•••	•••	•••		···ber		11 T	,, l	ก็ผู้
LOCOMOTIVE FIRI				•••	•••	•••	•••	•••	"			7 0
		•		•••	•••	•••	•••	•••	"		,, ~	
DD AGG for Both Doo		S	HC	WE	RS	•						
BRASS, for Bath Roo		meter		1 h	o	1 h	01	1 1	9		3 L	91
				J-8	<b>~</b> ,	1 by 2,	Z <del>_2</del> ,	9 D	у ə, 		<b>₹</b> 6	oy obe
Size	 Dia	meter		2-0	å by	4. ~,	1 by	, 5 <b>,</b> ~	٠,		1 by	
Price, each	•••	Rs.			4-8,	,	6-8	,			10	
TANKS,	W	ROU		TAN		D C	AST	IF	(O)	4.		
·	E:44.3	:4b M				Lock	Tan					
Capacity Gallons	00					LOCK	Pr	ce ea	h R		18	
	30	•		•••	•••	•••	1 1				28	
	00	-		•••	•••	•••	•••	"	,		35	
	73			•••	***	•••	•••	,, ,,	9		48	
	270			•••	•••	•••		"			68	
	00	• ••		•••	•••	•••	•••	22	21	<b>.</b> 1	10	
		W	'ATE	ER TA	NKS.	•						
	F	itted w	ith C	ast Iro	n Mar	nhole.						
Size. Th	ickness	of Pla	te.	•	Capac	ity Gal	lons.		Pri			
4 0 cube		a bas	se	••••	••••	40		•••••	••		55	
5 0 ,,	T.	है bas full aks wit	<b>.</b>		• • • • • • • • • • • • • • • • • • •	80 Pa	0 10 a.a.			lat.	80	
Large Wrought I	ron 1 ai	iks Wit	n an	gie iroi	n irain	ies, is.	12 per	cwı.,	comp	нег	<b>.</b>	
	N/A E		L	ΛE		ORT	Q					
French Polish	AWL	riar c	)	OI.				per ga	l Re	5	0	
Copal	•••	•••	•••	•••	•••			per ga				
Carriage Body	•••	•••	•••					37 11		=	Ö	
White hard spirit	•••	•••	•••	•••	•••		•••	"	"	5	8	
Brown ", ",	•••	•••	•••	•••	• • •		•••	,,	"	6	0	
Black Japan	•••	•••	•••	•••	•••	• • • • •	•••	"	,,	5	4	
		<b>4</b> = 1	7 B -	~ ~ ~ ~~	DC							
				SHE	KS.	2			•		•	
IRON, for Bolts and Nut		us sizes	5	•••	•••	•••	pe	r cwt.			0	
GALVANIZED, for Ro	ots .	••	•••	•••	•••	•••	•••	"	••	18		
LEAD, for Roofs	•••	••		WAR	SALA	R JÜNG	BAHAD	ud?	"	14	8	

### WIRE.

				Rs. a. p.	1		Rs. a.
Lead	•••	•••	per lb.	0 10 0	Iron		per lb. 0 2
Copper	•••	•••	••• ,,	0 10 6	Half-round Iron	•••	, 06
Brass	•••	•••	,,	0 6 6	Half-round Steel	•••	,, 0 8

# CORRUGATED IRON SHEETS.

Gauge.	Length.	Width.	Rate per cwt. (subject to fluctuation).
No. 20 22 24 20 22 24	Feet. 6, 7, and 8  ", 9 and 10  ", "	Inches. 27, 30, and 33 ,,, 27 27 27 27	Rs. 10-8-0.

### PLAIN GALVANIZED SHEETS.

Gauge.	Length.	Width.	Rate per cwt. (subject to fluctuation).
No. 18	Feet. 6, 7, and 8	Inches. 30 and 86	] .
20	>,	,,	▶Rs. 10-8-0.
22	,,	"	
24	<b>,</b> ,	29	l)

### PLAIN ZINC SHEETS.

2, 3, 4, 5, 6, 7 and 8 in cwt. ... ... at Rs. 21-0-0 per cwt.

# FITTINGS FOR ROOFING.

Galvanized Iron Ridg	ge Capping	•••	•••	Inch	es	6,	9,	12	•	18	
Pr	ice per foot	•••	•••	Rs.		0-4-0,	0-8-0,	0-9-	0,	0-12-	.0
										Rs.	a.
Galvanized Bolts and	Nuts 3 by 1	(1 gro				•••	•••	per	gross	3	6
	do. 18" by 8"	(1	do.	16	lbs.)	•••	•••	•••	,,	4	8
Galvanized Rivets	•••		••	•••	•••	•••	•••	per	cwt.	20	0
Do. Washers,	curved, for co	rrugation	1	• • •	•••	•••	•••	•••	,,	25	0
Do. do.	plain flat	•••	• •	•••	•••	•••	•••	•••	"	18	0
Lead Washers	•••	•••	•	•••	•••	•••	•••	• • •	"	14	
Allan's Patent Clips	•••	•••	•	•••	•••	• • • •	***	•••	, 1	<b>28</b> .	0
Fittings	for Corrugated	d Roofin	g cos	it abo	ut Rs.	. 3 per 1	00 souar	e feet.			

#### CABINET MAKERS! AND BILL DEDG! DEGLICITED

						AND									
DOG	OR AND	BELL	FURI	NITURI	E IN (	GREAT	VARI	EŤY, 1	I <b>N</b> G	LASS,	CHI	NA,	AND	BRA	SS.
	Price,		I	Re. 1-4,	,	Rs. 2	$\mathbf{R}$	e. 1 ,		•					
	Price	CASTOI per set o	of 4	•••	•••	Rs. 1	ll, Med 4, Rs	ium, ar . 2-4,		rge. s. 3-8					
	Price	CASTOR per set	of 4	•••	•••	Re. 1		. 2-8,	R	s. 3					
	Price	nt Star per pair			••	Řs. 3,	Řs.								
	Price,	Door I	•••	R	s. 3,	Rs. 4,	iamete Rs. 5	r.							
		RANKS,													
		ANT BEL													
		Door H per doze					7 in. 8s. 4								
	Door I	HANDLES	with	White	or Bla	ack Chai	n Grip	, Small	l, Me	dium,	and I	Large	e.		
		per pair			••			. Rs. 8	3, F	ks. 4,	•	Rs.	6		
	Price	HANDLES per pair		•••	••			er. . Rs. 6	5, R	s. 6,		Rs.	8		
•	Price	ANDLES per pair		•••	••	··· ·				ks. 6,		Rs.	8		
	Price	HANDLES per pair		•••	••	•		er Plat . Rs. 1		ks. 13,	•	Rs.	15		
		HANDLES per pair		iss Grip		••		. Rs.	4. F	Rs. 5.		Rs.	6		
	Door I	HANDLES ld Flowe	, for											ld L	ine
	Price	per set		•••	••	•••			••	•••	Rs.	1-9	2,	Rs.	2
	Door I	HANDLES	, Cui	Glass,	White	-Price	per se	t	•	•••	Rs.	8-0	•	Rs.	
	Door I	HANDLES	, Um	BER-F	rice pe				•	•••	Rs.	10,	,	Rs.	12
	Price	Finger per pair	•••	•••	Re. 1	.,	Gold L Rs. 2	,		lower Rs. 3	•.				
	Price	FINGER per pair		••	Rs	. 6	and B	₹s. 7							
	` Price	SLIDR FL per doz.	•••	•••	•••	R	s. 3,	Rs. 3-	·8 <b>,</b>	Rs. 4	.8,	6 i Rs.		7 Rs.	in. 6
		per doz.		Bolts,		w 8 Rs.	in. 6-12,	10 in Rs. 7-		12 in Rs. 9		15 Rs.		18 Rs.	
		LIDE FL per doz.		Bolts,			in. . 3-12,	4 in. Rs. 4-		5 in Rs. 5	,	6 i Rs.	in. 6-12,		in. 7-8
		per doz.		Bolts,	Broad	8 Rs		10 in Rs. 10		12 ir Rs. 1	2,	Rs.	in. 15,	18 Rs.	
	Price,	PULLEY, each			1½ in. As. 6,	1 ½ i As.		1 <del>1</del> in. is. 10,		in. . 14,	2½ i Rs. 1	n. -8,	3 in. Rs. 3		in. s. 5
	14														

54	Muncherji Do	rabji (	& Co.,	Gene	ral	Engi	neers, C	ontraci	tors, e	<i>tc.</i> .
	Cabinet	Make	rs' ai	ad Bu	üld	ers' l	Requisi	tes—con	ntd.	
	CORNICE POLE BR	ACKETS,	Light.	2 in		2 <del>]</del> ir	1. $2\frac{1}{2}$	in.	23 in.	3 in.
	Price per pair	•••		Rs. 1-			-8, Rs.	1-12,	Rs. 2,	Rs. 2-4
	Do. do.	Stro	ng.	Rs. 1	·8,·	Rs. 1-	12, Rs.	2,	Rs. 2-8,	Rs. 3
	CORNICE POLE R Price per doz.			-			1 <sup>3</sup> / <sub>4</sub> in. Rs. 1-8, I		-	3 in. Rs. 3
	TASSEL HOOKS, I	Fancy—	Price pe	er doz. I	Rs. 3	•				
	Sash Rollers-						Small,	Mediu	ım, an	d Large.
	Price per doz	•••	•••	•••	•••	•••	Rs. 4-4,	Rs. 4	-8,	Rs. 6
	Flush Rings-	•								
	Price, each	•••	•••	•••	•••	•••	As. 6,	As,	8,	As. 12
	Door Buttons is	OR VEN	ETIAN	•						
	Price, each	•••	•••	•••		•••	As. 12,	Re.	1, 1	Rs. 1-4
	HAT PINS, Whole	Brass-	Price pe	er doz. F	Rs. 3.	,				
	HAT PINS, with C		-							•
	HAT PINS, Fancy-			_						
	WARDROBE HOOF	•			ner i	loz Re	3			
					-			- 40	••	
	WARDROBE HOOK		rancy C	mna Ki	1005-	~Frice	· .			
	LAMP HOOKS, Lig						Smal	l, Med	lium, an	d Large.
	Price per doz		•••	•••	•••	•••	Rs. 1-	•	s. 3,	Rs. 4-8
		strong	•••	•••	•••	•••	Rs. 3,	. Rs	s. 6,	Rs. 9
	Brass Rim or M	ORTICE	Locks,	all Bra	ss, G	iun Met	lal Key—			
						•	4 in	F	i in	6 in

20.	uo. Di		•••	•••	••	• •••	13. 0,	113. 0,	1/2. 9
BRASS RI	M OR MC	RTICE	Locks,	all B	rass, (	Gun Meta	al Key—		
						•	4 in.	5 in.	6 in.
Price, e	ach	•••	•••	•••	•••	•••	Rs. 4-8,	Rs. 5-8,	Rs. 7
Brass Ri	M Locks	, with I	Furnitur	e comp	olete,	5 in.	6 in.	7 in.	8 in.
Price, e	ach	•••	•••	•••	•••	Rs. 2,	Rs. 2-4,	Rs. 2-8,	Rs. 3-8
Iron Rim	Locks,	Commo	on—Prio	ce, eac	h	As. 14,	Re. 1,	Rs. 1-4,	Rs. 1-2
Do.	do	Strong	g —Pric	e, eac	h	Rs. 1-4,	Rs. 1-12,	Rs. 2-4,	Rs. 2-8

•

# ROOFS, BRIDGES, GIRDERS. &c.

We are now prepared to contract for the manufacture and erection of any of the above class of work, and to supply designs and estimates for the same when necessary on receipt of full particulars of the work required.

### ROOFING.

In asking designs it should be stated if Corrugated Iron or Mangalore Tiles are intended to be used.

Corrugated Iron Roofing with Iron Trusses, Angle Iron Purlins, complete, cost approximately Re. 1-1 per square-foot measured horizontally. Where coolness is an object, Mangalore Tiled Roofing is decidedly preferable to Corrugated Iron Sheeting, the tiled roof lasting much longer than the other.

Tiled Roofing costs from Re. 0-14-0 to Re. 1 per square foot measured horizontally, including Iron Trusses, Wood in Purlins, Rafters, &c. Per square of Tiled Roofing 150 Tiles are required, and the present price varies from Rs. 6 to Rs. 7 per 100.

## BRIDGES, GIRDERS, &c.

We can supply all the requisites for this class of work. Designs for any of the above will be sent on receipt of the following information:—

For Bridges.—Heaviest load required to be carried over the proposed Bridge. With clear span, clear height below girders. Flooring, whether of wood, iron or road metal. Section of bed or river.

For Girders.—To enable us to design and estimate for, we require to know the span and required load, whether load is distributed or in centre.

Rolled Iron Beams are now being largely used in this class of work, owing to facility in erection and durability.

We have made complete arrangements for ordering any of the sections given in the following list, which gives the safe distributed loads for various spans. The price of these Beams fluctuates according to the state of the market and rate of exchange, but averages from Rs. 5-4 to Rs. 6-12 per cwt. delivered in Bombay.

### ROLLED IRON BEAMS.

We submit the following List of Sections containing the most useful sizes for Builders, Bridgework, and general purpose; and should any size required not be in stock, we can, by our Telegraph Code, promptly execute order for the same from Manufacturers within six weeks.

The Beams are rolled from good quality Iron, straight, square, and clean at edges, and the quality equal to bearings, distributed weights as per list.

ROLLED IRON BEAMS.—Selected Stock Sizes.

No.	Depth of Web.	Width of Flange.	Thickness of Web	Appropriate Weight per foot.	6 ft.	8 ft.								CLEA			_	
	Ins.	Ins.	Ins.	lbs.	Tons.	Tons.	Tons.	Това.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	per cwt. Rs a. p.
1 2 3 4 4 5 6 6 7 8 9 10 11 12 11 15 16 17 18 12 12 22 23 24 25 26 27 28 36 36 37	8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 7 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 10 11 12 14 6 7 7 7 7 8 8 8 8 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	64 64	本 本 本 本 本 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 13 13 13 13 10 30 11 18 14 19 20 14 15 21 29 34 24 36 42 56 60 62 70	4·1	1·16 2·10 4 7 3 11·10 3·3 6·5 5·15 8·10 7·0 10·15 11·5 13·0 12 15·15 18·0 29 35	2 2·5 2 8 5·10 2 7 9 2·10 6·0 6·10 8·3 5·10	1·10 28 4·10 1·16 7 2 3·15 8·10 7·0 7·7 8·15 9·1 8·5	1.8 1.5 2.0 8.10 1.10 5.10 1.12 8 2.15 4.5	1.8 2.15 4 1.5 2.5 2.0 3.10 8.5 5.8 6.5 7.0 5.13 7.15 8.10 11.13.5	2·10 1·8 2·10 4·5 5·3 5·0 6·0 6·10	2·8 3·15 4·6 4·5 5·6 4·5 5·15 6·5 9·0	4·0 3·15 4·5	3·15 4·10 4·0 7·5 7·0	2·15 2·10 8·0 8·15 6·9	4·0 6·4	6·0 12·3 18·8	11

# Table showing Length with Gauge and approximated weight of a Sheet of Galvanized Corrugated Iron, &c.

Length in Feet.	Width in Inches.	Gauge.	Approximated Weight per Sheet.	Weight per 100 square feet of Roofing including six inches side and end laps.
6	32	18 B. W. G.	35 lb.	]
7	32	Do.	42 "	300 lbs.
8	32	Do.	49 ,,	
6	32	20 B. W. G.	30 ,,	]
7	32	Do.	35 "	250 lbs.
8	32	Do.	40 "	
				•
6	32	22 B. W. G.	25 ,,	
7	32	Do.	30 ,,	210 lbs.
8	32	Do.	<b>35</b> ,,	
		•		
6	32	24 B. W. G.	20 "	]
7	32	Do.	25 ,,	>175 lbs.
8	32	Do.	29 "	J •
1 000	•	Ι .	-	<u> </u>

# Breaking Weight of Cast-iron Girders.

#### in sons distributed.

	A 701	15.000	100	V. 4 . Sec.	1000	100	100	eriotores.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	1000	2000	all state		CALL DESCRIPTION		800 G 1000	OF VALUE OF STREET	100	Notifical to	980000	674.36	21/8/67-3	44 S	200 30 30 4	WINDS NO.		type and to	Ñ
	4					100				4	75	14	100				100	1.0			2337	1000		18 m	10 1	70.0			á
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1/2		W 45									104.2	200	100		$\mathbf{c} \in \mathbb{N}$	50 B			0.00		August 1		Section .	9130	1.0				Š
90		(A)		100 M	ALCOHOL:	* .		en en en en			V 4	100		10.50	200	MAN A	100 TO 10	Service Control		1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	and there	12 200 60 41	E PROPERTO A LA COLO	BEGGE TO	Control of the Contro	ij
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3	5 N	1	5 4 4 4	1.00			·	3	44	$S_{i}^{*}B_{i}^{*}$	28 18	10/2			16	1	200	AQ	1 100		. 10,00	* *		. 4		9		14 37	À,
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### Strength of Rolled Iron Beams.

BW = Breaking Weight distributed in tons.

đ	epth of B	leam.		Size	of Fla	nges.		B. W. for d	ifferent Spans	•
	Inches			I	nches		10 ft,	· 15 ft.	20 ft.	25 ft.
5	•••	***		2	×	1	6.6	-	_	
6	•••		•••	21	×	Į.	10	6.6	5	
7	•••	,,,		3	×	Ā	14	9	7	5
8		•••		3	×	<u>5</u>	20	13	10	. 8
9	•••	•••		4	×	34	86	24	18	14
10		•••		41	×	1	60	40	80	24
	•		1						1	1

# Strength and Weight of Chains.

	CHAII	NS.						CHAIN CABLES.	
Diameter in inches.	Weight per Proo		Proof of Strain in cwts.		Weight per Fathom in lbs.	Proof of Strain in cwt.			
	51 8 14 22 82 48 56 71 87	251 861 651 102 147 290 268 834 498	1 10 4 28 19 4 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			181 22 80 42 55 68 84 102 120 148	80 120 200 260 860 520 640 760		

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