FOREIGN SUMMARY_METALS AND MARKETS.

139

An American-Wm. H. Ward, of Auburn, N. Y. the inventor of the bullet-machinery described on page 36. Vol. XII., SCIENTIFIC AMERICAN-has been exhibiting a new system of naval signals before the British Admiralty Board. He has been highly complimented for the completeness of the invention, and it is believed that it will be adopted for the British navy.

The ship-building business in England is very active at present, both in the government and private dockyards.

The Cunard Company have sold their line of iron propellers, which had been employed for carrying heavy freight between England and America, to the Spanish government. They are to be replaced by vessels of a larger class. This company also intends to add another large ship, called the Scotia, to their mail line. It will be made of iron, and of greater capacity than the Persia. It is not vet decided whether it shall be propelled by a screw or paddle-wheels. It is to be desired that the screw may be adopted, in order to test its qualities fairly in a first-class ship. Hitherto, all screw steamers have been furnished with engines of much less power in proportion to their tunnage than paddle-wheel steamers.

A colossal statue of Hugh Miller, the stone-mason, geologist and editor, is about to be erected in his native place, Cromarty, Scotland. A new statue of John Hunter, the celebrated surgeon and anatomist, is also proposed to be erected in London. These are honorable memorials to the memory of scientific men.

A meeting of scientific gentlemen was lately held at North Woolwich, for the purpose of discussing the merits of india-rubber as an insulating substance for telegraph cables. Mr. West stated that a telegraph-wire insulated with india-rubber had been in use across the harbor of Portsmouth since 1846, and that its insulation was still perfect. It was also stated that gutta-percha was a failure for telegraph-wires on land and in the sea; that it was not such a good material as india-rubber for insulation, but it was easier to apply it to the wires.

There was a great trial at Ipswich, July 6, with Fowle's steam plow and Smith's steam cultivator. The former plows up the soil in farrows, according to the common method, the latter smashes up the soil, and is a "rotary." It is drawn by a windlass, worked by a band attached to the driving-wheel of a small, highpressure portable engine. Its cost, with ropes and all the apparatus, is only about \$1,050. It was generally admitted that steam-plowing was becoming a necessity, just as much as reaping by machinery.

Towing by small steamers has justb een introduced on the Leeds and Liverpool Canal, four steam-tugs being employed for this purpose. Each boat is 60 feet long, 8 feet beam, has a tubular boiler, engines of 12 horsepower, and a screw-propeller driven at the rate of 180 revolutions per minute. These boats are solely employed for towing on the canal, and they do the work for 25 per cent, less than has been charged for horsehaulage.

PRICES OF FOREIGN METALS, AUGUST 4.

	£ 8.	d.		£	8	d.
Iron, English Bar and	- D.	u.	Russian C C N D.	17		0
Hou, English Dar and			Steel, Swedish Keg,		v	
Bolt :-			Steel, Sweulsti Keg,	00	10	0
In London, per tun.	700		nom			
In Wales	600		Do. Rolled		10	0
In Liverpool	6 10 (Faggot.	21	0	0
Staffordshire Bars.		D	Spelter, on the spot	21	0	0
Sheet, single,	9 10 0)	To arrive		10	0
Double	11 0 0	0	Zinc, in sheets	28	10	0
Hoop.	9 0 0	Ď	Copper, Tile, 14 to 28			
Rod, round	8 0 0		1bs 1	02	10	0
Nail Rod, square	9 ŏ č		Tough Cake 1	102	10	ŏ
Shipping Iron :-	200	,	Sheathing & Bolts,		10	•
Staffordshire Bars.	8 0 0	•	per 1b.			11%
			Shoot	-	-	11%
Sheet, single	9 10 0		Sheet			
Double	11 0 0		Bottoms	-		12
Ноор	9 0 0		Old		-	
Rod, round	800		Yellow Metal	_	-	936
Nail Rod, square	900)	Burra-Burra, per			
Iron, Rails, in Wales,			tun	-	-	
cash	650)	Russian	_	_	_
Do. 6 months	6 10 0)	Lead, British Pig	22	15	0
In Stafford hire	7 0 0		Spanish	22	10	Ó
Railway Chairs, in		,	W. B, at Newcastle	Ξ.	-	
Wales	4 5 (`	Sheet	23	10	0
In Clyde	4 5 (20	10	U.
De Na 1 in Clado			Tin, English Block,		~	
Pig No. 1, in Clyde 3-5ths No. 1 and	2 15 6)		138	0	0
3-5ths No. 1 and				139	0	0
2-5ths No. 3	2 15 ()	Refined 1	145	0	0
No. 1, in Wales			Foreign Banca 1	146	0	0
No. 1, in Tyne and			Straits 1	143	0	0
Tees			Tin Plates, Charcoal,			
Do. Forge			IC, per box	1	13	0
Staffordshire Forge			Do. 1X		19	ŏ
Pig (all mine), at	A.9	MT.	Coke. IC		5	6
the works, L. W.,			Do. IX		11	в В
	3 15 0	<i>.</i>	Do. at Newport, 1s.	1		•
nom	5 15 0		Do. at Newport, 18.			
Welsh Forge Pig		•	per box less	-	-	-
Acadian Pig, Char-			Do. at Liverpool, 6d,			
• coal	815 ()	per box less	-	-	-
Scotch Pig, No. 1, in			Canada, Plates, p'r t'n	13	0	0
London	8 10 ()	Quicksilver, per bot-			
Iron, Swedish, Indian Basdrid, per tun.			110	1	0	Ű
massifit per tuni.	19 0 0)				- 1

New York Markets. -Foreign cannel, \$9; Anthracite, from \$4.50, \$4.75, to \$5 CORDAGE.-Manilla, 856c. a 8%c. per lb. Corron.-The sales were more fa avorable this week, still the prices

have somewhat fluctuated. Good ordinary Upland, Florida and Mo-bile, 9%c.; Texas, 10c.; Middling fair from \$13%c. to 14c.

Correct. There has been a considerable advance in the prices of his metal. Lake Superior ingots at 23c. per lb. for cash; sheathing, 260 FLOUR.-There has been a slight upward tendency of prices

Southern flour has been buoyant, but on the whole, between one day and another, the market may be set down as fluctuating. Genese brands, \$5.25 a \$8; Ohio choice, \$5.50 a \$7.75; common brands from \$4.15 up to \$6.

HEMP.-American undressed, \$140 a \$150; dressed from \$190 a \$210. Jute, \$95 a \$90. Italian scarce. Russian clean, \$210 a \$215. Manilla 6%c. a 6%c. per 1b.

INDIA-BUIMER.-Para, fine, 57 %c. a 60c. per 1b.; East India, 37c. INDIGO .- Bengal, \$1 a \$1.65 per lb.; Manilla, good to prime, 55c. a 61.10; Guatemala, \$1.05 a \$1.25

IRON.-Anthracite pig, \$23 a \$24 per tun; Scotch, \$24 to \$24.50; Swedish har, ordinary sizes, \$38 a \$90 : English refined \$58 a \$54 50 Swedish car, oremany sizes, 500 a 500; Elgissi reined, 500 a 504.00; English common, \$43 a \$45. Russian sheet, first quality, 11%c. a 12c. per lb.; English, single, double and treble, 8%c. a 4%c.

LEAD.—Galeaa, \$5.60 per 100 lbs.; German and English refined, \$5.70; bar, sheet and pipe, from 63/c. to 7c.

LEATHER.-Oak slaughter, light, 35c. a 37c. per lb.; Oak, heavy, 22c 35c.; Oak, crop, 40c. a 42c.; Hemlock, middle, 25%c. a 26%c. Hemlock, light, 25c. a 25%c., Hemlock, heavy, 23%c. a 24%c; Patent ent enameled, 16c. a 17c. per foot, light. Sheep, morocco finish, \$7.50 a \$8.50 per dozen. Calf-skins, oak, 62c. a 65c.; Hemlock, 60c. a 65c; a polo per duzen. Carlsanin, dat, dec a duc, i reinfora, duc a duc, Belting, cak, 22. a 34c. ; Hemlock, 25c. a 31c. Nans.—Cut ars quiet but steady at 3c. a 33c. per lb. American

linch sell in lots, as wanted, at 5c. a 6c.; wrought foreign, 3c. a 3%c.; One-Linseed, city made, 60c. per gallon , whale, bleached spring,

54c, a 56c.; sperm, crude, \$1.22 a \$1.27; sperm, unbleached spring, \$ 135; lard oil, No. 1 winter, 85c, a 90c.; extra refined rosin, 80c. a 40c.; machinery, 59c, a 100c.; camphene, 45c, a 47c.; coal, refined, from \$1.12 a \$1.50. 1.0

Rears.--Common, \$1.77% per \$10 lbs. bbl.; No. 2, &c., \$1.80 a \$2.12%; No. 1, per 280 lbs. bbl., \$2.25 a \$3, white, \$3.25 a \$4.50; pale, \$4.50 a \$6.25.

SPELTER -5%C. ner lb.

STERL. - English cast, 14c, a 16c. per lb.; German, 7c, a 10c.; Am-rican spring, 5c. a 5%c; American blister, 4%c. a 5%c.

Tallow.--Banca, 33c. a 34%c.; Straits, 32c. ; plates, \$7.50 a \$9.83% er box.

TURPENTINE .- Crude, \$3.62% per 280 lbs.; spirits, turpentine, 44%c.

ZINC.-Sheets, 7% a 7% per lb.

The foregoing rates indicate the state of the New York markets up o Aug. 18

There has been a slight decline in cotton; also, in tin. But it is believed the prices of both will yet rise somewhat higher Great efforts are now being m le in England to increase the cultivation of cotton in Africa, so as to obtain it at lower prices than have ruled in the market for several years. The demand for cotton is greater than the supply, and this would be increased were the prices lowered. When it is remembered that the prices of cotton are not over one-half what they were half a century ago, the improvements in its cultivation since then inust have been neither "few nor far between."

The market for most qualities of wool is very quiet. The holders are not anxious to sell at present prices, and much caution is exercised in buying, thus showing a want of confidence in the existing state of things. Fine Saxony fleeces sells at 56c. to 60c. per lb., American merino at 35c., 40c. and 45c ; California fine at 25c. to 30c., unwashed, and common South American, 10c. to 13c., unwashed.

The peaches are a small crop this season, but some very beautiful lots of Jerseys have sold at \$1 to \$1.25 per basket, and Delawares at \$1.50 and \$2. The peach crop has been growing smaller every season for some years past; and where this tree once flourished in several counties in New Jersey, it is now almost extinct.

The coal trade of Pittsburg amounted last year to 54,367,632 bushels, making a total of 2,064,594 tuns. Two-thirds of this amount were exported by boats and railroads to other sections.

The American Horse Nail Company, of Providence, commenced the manufacture of horse and ox shoe nails about six years since, by patent machines, which work with great speed and accuracy, producing from each, with the labor of a man and boy, as many nails as 50 men can make by hand per day. They are formed by pressing the iron into proper shape between dies while at a welding heat.

According to a statement of Mr. E. Howe, the number of sewing-machines sold in this city du ing the past year, ending April 30, was 37,442. The increase has been over 100 per cent. in the six months ending October, 1858, and it is believed that this increase will be more than doubled during the next twelve months, making the number about 78,600.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING AUGUST 16, 1859.

[Reported Officially for the SCIENTIFIC AMERICAN]

* Pamphlets gi ing full particulars of the mode of applying for patents, size of model reduced, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SOENTFIC AMERICAN, New York.
 25,083.—G. L. Bailey, of Portland, Me., for Improved Machines for Punching Holes in Leather: I claim, first, The arrangement and combination of the bed-piece, L, lever, A, and hollow cutter, C, provided with a standard, D, connecting rod, E, and treadle, H, as and for the purpose set forth and described.

described. Second, I claim the arrangement, as set forth, of the circular ad-justable cutter-bed. D, in such a relative position to the cutter, C, as to accomplish the object specified.

to accomplish the object specified. 25,084.—Wm. T. Barnes, of Buffalo, N. Y., for an provement in Sewing Machines: I claim. first, Working the needles vertically and alternately in the same hole in the bed plate, substantially in the manner and for the purpose set forth. Second, I claim the arrangement of springs, 5 and 7, wedge, 10, finger, 6, spring, 18, and stop, 20, substantially in the manner speci-fel. Th rd, I claim the arrangement of lever, 18, slide, 11, and lever, 12, when said lever, 12, is provided with points, is privoted to slide, 11, and made to operate substantially in the manner described. Fourth, I claim the arrangement of the ratchet wheel, a, serrated bar c, and ratchet e, with the spool-rod, and levers, C C', substantially as set forth.

25,085 .- Mellen Battel, of Albany, N.Y., for an Im-

20,000.—Mellen Battel, of Albany, N. Y., for an Im-provement in Steam Generators: I claim the combination with the tubee, C C, extending downward through the tube sheet, or crown of the fire-box or downward into a, flue, and upward through the water above the tubesheet, of the inner tubes, D D, applied in the manner described for the purpose set forth.

25,086.—T. D. Berry, of Lowell, Mass., for an 1m-proved Clothes Eack: I claim the construction of my clothes rack, with divided center, or of two sections, each to consist of center-nices. A slats between the section of the sectio

proved Clothes Kack: I claim the construction of my clothes rack, with divided center, or f two sections, each to consist of center-piece, A, slats, F, braces, H, nd circumferential pieces, E, united to each other as described, when see two sections are combined with each other by plates. C, so Inged as to allow the rack to be folded and opened, both vertically of circumferentially, in the manner described, to obtain by this di-ided center, a rack suitable for use, when, folded, closely and cir-umferentially for the purposes set forth. and

25,087.-E. Booth, of Troy, N. Y., for an Improvement

I claim, first, The combination of an eve-pointed vibrating lever, and a looper, operating together substantially in the manner and for the purpose set forth.
 Second, I claim the vibrating of the eye-pointed lever by a positive motion given to it by the rollers, tt, entirely, and as contradictinguished from the use of a spring of any kind, by which means I ensure its reliable action under its rapid motions as set forth.

25,088 .- Maro Bradly, of Dundee, Ill., for an Improve-

25,085.—Maro Bradly, of Dundee, III., for an Improve-ment in Horse-rakes: I claim the use of the recessed metal bar, b, spurs, E F, rods or shoes, B, elastic bar, I, lever, J, slide-rod, K, and projection, G, the whole being constructed and employed together, in the manner and for the purpose substantially as described.

[This invention relates to an improvement in that class of horse rankes in which wire teeth are used. The object of this invention is i renders uchrakes more durable than hitherto constructed, lessen th The object of this invention is to draft very considerably, and also facilitate the turning and general manipulation of the machine, and at the same time form compact windrows.]

25,089 .- J. D. Browne, of Cincinnati, Ohio, for Improved Cabinet Furniture: I claim the arrangement of the folding ends, C C, as set forth, and the flaps or leaves, E E', hinged on the inside, for the purpose sub-stantially described.

25,090.-Henry Burt, of Newark, N.J., for an Improved Door-fastener: I claim a permanent door-bolt made with the fastening plate, b, olt-case, a, and bolt, c, secured and operated as described.

bort-case, a, and bort, c, secured and operated as described.
25,091.—Joseph Calef, of Buffalo, N. Y., for an Improvement in the Running Gear of Carriages:
I claim the journal box, T constructed substantially as described, and combined with the friction rollers, B, or sildes, W, for the purposes set forth.
The arrangement of the journal braces L M N, in combination with the running gear of carriages, for the purposes set forth.

the running gent of car neger, is a we parameter a sum 25,092.—Wm. S. Carr, of New York City, for an Im-pforved Water Closet: I claim regulating the action of the cock or valve in water closets by the joint operation of the lever and weight of water in the pan, sub-stantially as specified, whereby the cock or valve is kept open until the weight of water in the pan regulates the closing thereof. I also claim the construction of the valve, c, with the balancing diaphragm, 12, valve, 10, and spring, 13, as set forth.

25,093.—H. Chauncy, of Perry, Ga., for an Improve-ment in Machines for Dressing Stone: I claim the arrangement of the pick or hammer shafts, NN, ad-justable shaft, R, and adjustable traverse bar, P, when combined or used in connection with the reciprocating carriage C, and laterally moving, or adjustable bed, U. in the manner and for the purpose set forth.

25,094.-A. H. Clear, of Providence, R. I., for an Im-

25,094.—A. B. Clear, of Providence, K. I., for an Im-provement in Pipe Connections for Steam Boilers: I claim making the connections between the injection pipe, or other similarly submerged pipe of a steam vessel, or any other ves-sel, with the side or exterior of the vessel, by means of a valve box situated within or between the inside and outside planking of the vessel fitted with a valve, capable of being operated by a screw, or its equivalent, by a person on or above the deck of the vessel, substan-tially as described.

The liability to bursting or breakage of the injection pipe or pipes or other submarged pipes is an ever-present source of danger on bourd steam vessels, and in other vessels there are frequently submarged

nines liable to similar accident in a lesser degree. The object of this invention is to obviate such danger, by providing convenient means of closing such pipes close to the exterior of the vessel; and the na ture of the invention consists in making the connection of the pipe with the side or exterior of the vessel by means of a valve box con-taining a sliding valve arranged within the planking of the vessel operated by means of a screw, or e uivalent, from the deck of the vessel, by which the external orifice may be closed instantaneo in cas of a brake or leak occurring in the pipe, thereby effectually shutting out the water.]

140

25.095.-J. H. Clifton, of New Castle, Pa., for an Im-20,000.—9. 11. OHION, OF NEW Castle, Pa., for an Improvement in the Manufacture of Machine Belting: I claim the process of manufacturing belting for machinery from fibrous materials, substantially as described.

25,096.-J. H. Clifton, of New Castle, Pa., for an Improvement in Belting for Machinery: I claim, as new article of manufacture, belting made of fibrous naterial by the process set forth.

25,097.—E. K. Collins, of Chili, N. Y., for an Im-provement in Clover Bolts : I claim the combination and arrangement of two bolts in clover ma-chines, when said bolts have a counter and upward movement pro-duced in the manner and for the purposes specified.

25,098.-T. S. Cox, of Lafayette, Ind., for an Improve-

25,098.—T. S. Cox, of Lafayette, Ind., for an Improvement in the Mole of Drain Plows: I claim the peculiar shape of the mole, C, by the forward movement of the mole, C, the earth is carried from the bottom of the ditch by means of the terraducts, B, from the point of the mole, D, to the rear of the shank, A, and pressed more densely by the increased earth coming in contact with the convex end of the inole, C, in rear of the shank, A, in such a manner as to make a better arch and more durable than any heretofore made, leaving the bottom of the ditch almost entirely uncompressed, hence I do not claim any thing except the invention of the terraducts, B, ending in the convex on the top of the mole, C.

25,099.-John H. Crane, of Charlestown, Mass., for an

Improved Carpet-sweeper : I claim the arrangement of belt, rotating guides and driver pulley, persting in combination with carpet sweepers, cssentially as set operat forth.

25,100.-T. B. DeForest, of New York City, for an Im-provement in India-rubber Springs for Railroad Cars, &c.

Cars, &c. I claim composing a spring of a series of blocks or segments of a circle of vulcanized india-rubber, placed and held between two parallel plates, or equivalents, substantially as described, but this I only claim when the series of blocks are soarranged and held between the two parallel plates, that their contiguous faces shall not come in contact, under light loads, but shall come into contact and give mu-tual support as the load increases, substantially as and for the pur-pose specified.

provement in Switches for Railroads: I claim the combination and arrangement of the flat bars, ΔA , and the stationary end plates, C, provided with the guide rails, D b, in connection with the rail, G, when constructed and operated sub-stantially as and for the purpose above set forth.

25,102 — Eugene Duchamp, of St. Martinsville, La., for an Improvement in Self-releasing Whitfle-trees:

I claim operating the two rods simultaneously by means of the otted guards \mathbf{D} , in combination with boxes, G G, and lips, c c, in is manner and for the purposes specified.

 [This invention will soon be illustrated in our columns.]
 25,103.—Engene Duchamp, of St. Martinsville, I for an Improvement in Attaching Thills La.

Vehicles:

Venicles: I claim the combination of the swivel coupling boxes, E, having a elliptical slot through their ends, thill-irons having fluked per-ons, C, and hinged gates, J, or their equivalents, substantially as nown and for the purposes specified. [An engraving and full description of this invention will be pub-

lished shortly.] 25,104.-Jacob Edson, of Boston, Mass., for an Im-

25,104.—Jacob Loson, or Losson, mass, for an improved Carpet-sweeper: I claim producing the motive power of the machine, by means of a belt of rubber or gutta-percha, interposed as a running between the pulley orroller, n, and the surface to be swept or passed over, as set forth. I also claim arranging the guiding.wheel, i, upon the stationary hollow-shaft or bushing, K, through which the axle of the bush shaft passes, as described and for the purposes specified.

25,105.—Asahel Elmer (assignor to Nathan Elmer, Reuben M. Richard), of Shabbona Grove, Ill., for Reuben M. Richard), of Shabbor an Improvement in Mole Plows :

I claim, first, In combination with the adjustable block, B, on the plow-beam, the scoring or leveling-plow, D, in advance of it, sub-stantially as and for the purpose described, Second. I also claim, in combination with the plow-beam and coul-

stantially as and for the purpre described. Second. I also claim, in combination with the plow-beam and coul-ter the swinging-weighted crane or lever for preventing the careening of the plow, or for recovering its proper position after it has careened, substantially as described. Third, I also claim the combination of a forked coulter, for cutting a wedge-shaped or tapering slice over the coulter gash, with a press-ing or driving device for forcing down said slice, and thus packing the conlter gash, as described. Fourth, I also claim a mole or former made of a series of conical shaped sections which increase in size or they recede from the coul-ter, and which are so linked together as that they may move in a horizontal plane, but be comparatively rigid in a vertical plane, sub-stantially as described and represented, and for the purpose set form, I fith, I claim, in combination with the mole L, the correct or shoe, m, on its rear section or end, said scorer forming a groove or chan-el, in the bottom of the finished drain, for admitting the water into it, the sides of the drain being so closely packed as to prevent the water from entering there, said scorer being constructed and arranged as represented.

25,106.—D. R. Erdmann, of Philadelphia, Pa., for an Improved White Lead Apparatus:

I claim a rotary cylinder, G, arranged with double wire nettings, d, n combination with a vat, A, provided with a tube, F, substantially n the manner and for the purpose specified,

25, 107.-Alex. Forot, of Paris, France, for an Improve

ment in Fabrics: I claim the manufacture of a new kind of fabric without weav-ing, composed simply of threads glued upon a base of paper or any suitable kind of material, such fabric being left plain or ornamental, by embossing, or any other process, substantially as described.

25, 108.—Benjamin Fulghum, of Richmond, Ind., for an Improved Sawing Machine:

Improved Sawing Machine: I claim the combination and arrangement of the two frames, B C, placei one within the other, and arranged substantially as described, so as . admit of the saws being adjusted vertically, and also moved horizontally, forward and back, for the purpose set forth. Second, The arrangement of the shafts, g' and F, with their re-spective gearing, f' p, and the pulley, J, in condiction with the two frequencing frames, B C, whereby the saws are rotated, and at the same time have a reciprocating motion communicated to them. Third, In combination with two circular saws, d', w, the inclined ways, e' e', of the log carriage, I, for the purpose set forth.

25,109.—H. P. Gengembre, of Alleghany, Pa., for an Improvement in Manufacture of Coal Oils :

I claim the continual progressive and gradual destructive distilla-tion of coal, or other bitumiferous substance, for the purpose of ob-taining therefrom the different products of distillation by means and with the use of the apparatus described or other equivalent.

25,110.—Chas. Goodyear, of New Haven, Conn., for an Improvement in Manufacture of Porous Rubber Cloth:

Clours: I claim, as a new percus manufacture, pervious to air and water epellent, composed of a woven or equivalent fabric, and a thin po-bus coating of india-rubber or allied gum, substantially as described. 25,111.-Chas. Goodyear, of New Haven, Conn., for an

Improvement in India-rubber Fabrics: I claim bat or fle

I claim the porous and water repellent manufacture composed of a hat or fleece of cotton or other fiber and india-rubber, or allied gum, united and rendered porous, substantially as specified. 25,112.-Joseph Grunwald, of New York City, for an

Improvement in Clasps for Skeleton Skirts: I claim the combination of the hoops or springs with the tape, by means of clasps, constructed substantially as described and represent-ed by Figs, 3, 4, and 5, and for the purpose specified.

25.113.-James Hamilton, of New York City, for Im-

25,113.—James Hamilton, of New York City, for Im-proved Cross-cut Sawing Machine: I claim the manner herein described of arranging the shaft, d, and its gear wheel, f, and bevel gear, r, in connection with the bevel gear, s', and gear, s, on the shaft, l, so that said shaft, d, can be ohanged to stand horizontally and give motion to the saw, whether the said saw and the gearing thereof be in a horizontal or vertical position, substantially as specified, thereby adapting one machine to be moved by hand, in felling trees or sawing.up logs, as set forth. 'I also claim, in combination with the aforesaid machine for sawing holding smaller logs while being sawed for fire-wood, substantially as gpecified.

25,114.-A. Hammond, of Jacksonville, Ill., for an Im-

provement in Mole Plows: I claim the shoe, E, provided with a knife, N, and projection, L, when the same are arranged and operate in the manner and for the surposes herein set forth. [This is an improvement on the shoe or tooth of the mole or drawpurp

ing plow, and consists in extending a portion of the tooth out behind the standard, and forming a furrow or groove in the upper surface of it, diminishing, as it reaches the extreme end, for the purpose of closing up the opening left by the standard to prevent the ditch from filling up again .- At also consists in forming or affixing, in any suit-able way, a pin or angular-shaped knift to the sole of the shoe, to open a flace along the bottom of the ditch for allowing the water to pass up into the same and be drained off from below the ditch. 1

25,115.—B. S. Healy, of Cohocton, N. Y., for an Improvement in Self-acting Wagon Brakes: I claim the combination of a forked pole, arranged substantially as described, with the hounds, whereby the pole is free to slide in its forks and operate the brakes without moving the forks backward in the hounds. Torks and operate the bracks white the hounds. In combination with brakes pivoted to a fixed bar, as describe claim the brake blecks, arranged and connected with the brake set forth, whereby the friction of the wheels on the blocks draws brakes toward, and causes them to press with greater force age the wheels

25,116.-William M. Henderson, of Baltimore, Md., for

an Improvement in Car Seats: I chim, first, The construction of a rallway reclining chair ouch securely attached to the floor of the car, with the whole ch ever sible, so as to face either end of the car, substantially as reve scrib Se

reve sible, so as to face either end of the car, substantially as de-scribed. Second, The mode of varying the hight of the back of the chair, by making it in two pieces and suspending the lower portion, substan-tially as described. Third, In combination with a chair, reversible as aforesaid, I claim the double-acting foot-board, single-reversing leg-rest, and means for extending it by the action of the arms of the chair, substantially as herein described.

25,117.-Robert Heneage, of Buffalo, N. Y., for an Improved Hose Coupling: I claim the arrangement of the screw sections, B and C, and pack-ng, K, upon the cone extension, A, as set forth.

25,118.-H. C. Hunt, of Ottumwa, Iowa, for an Improved Vise: aim constructing a vise in such a manner that it will self-retain upon a table or bench, substantially in the manner set forth.

25,119.—John W. Huntley, of Lane's Creek, N. C., for an Improvement in Cotton Seed-planters: I claim the vertical rotating toothed shaft. H. in connection with the follower or satherer, J. paced within thehopper, G, and arranged for joint operation, substantially as and for the purpose set forth. tion with arranged

[The seeds, in this invention, are prevented adhering together by the fine short fibers which are attached to them in a greater or less degree, and which has hitherto rendered the planting of cotton seed by a machine a really difficult and uncertain operation.].

25,120.—Levi S. Ives, of Brooklyn, N. Y., for Improve-ment in Mill-stone Bushes:

ment in Mill-Stone Bushes: I claim, first, The placing, substantially as set forth, of a cylinder, D, which contains the spindle collar, B, blocks, F, and the adjusting wedges, G, within a cylinder, M, secured within the center of the bedstone, the cylinder, D, being allowed a vertical movement or play within the cylinder, N, to permit of the vertical adjustment of the spindle, and consequently the runner or uper milistone, with but little friction, and keeping all the parts in position so as to prevent their forgagement.

little friction, and keeping all the parts in position so as to preven-their dramgement. Second, The arrangement of the plates, J K L, with the washer, I, and ring, H, or their equivalent, in connection with the projection, d, on the inner side of the cylinder, D, substantially as described, to prevent the casual turning of the blocks with the spindle. Third, The plate, N, provided with the flanch, Q, and the dome-shaped cap, F, provided with the flanch, Q, and the dome-shaped cap, F, provided with the flanch, Q, and the dome-cap, T, and plate, g, the above parts being attached respectively to the cylinder, D, spindle collar, F, and driver, R, to forman air and a dust chamber, substantially as and for the purposes set forth.

25,121.-H. R. Jerome, of Monroeville, Ohio, for an

25,121.—H. R. Jerome, of Monroeville, Ohio, for an Improvement in Mole Plows:
Iclaim, first, The arrangement of a beam, carrying a mole plow, with the front and rear standards of the front and rear propelling wheels and with the adjusting device, substantially as and for the nurposes set forth.
Second, Providing the coulter with a series of notches and arranging the draught-chain in one or other of said notches, and thus having the draught applied directly to the coulter, substantially as and for the purposes set forth.
Third, The combination of a coulter which is elliptical in form, and rear ends, substantially as and for the purposes set forth.

[This invention is designed for cutting drains under ground. The bulter and mole are sharp at back and front so as to cut both in the back and forward movement, and thus, when the plow comes in contact with a stone or other obstruction, it can be backed and turned out of the way of the same. The frame is self adjusting, according to the depth at which the coulter is set to cut. The draft chain is attached directly to the coulter and thus the power or pull comes upon

© 1859 SCIENTIFIC AMERICAN, INC

the coulter instead of upon the beam, and consequently, the beam does not act with a leverage strain in the coulter. The whole ma-chine is arranged on wheels and can be adjusted, when desirable, so as to be propelled over the land without going into operation. This is doubtless a good drain plow.]

25,122.-Wm. B. Johns, of the United States Army, for an Improvement in Apparatus for Lighting Gas

I of an improvement in arrest Burners: I claim giving the wrench staff the jointed sections, E and F, so that a match inserted in the extreme section may illuminate the burner key while the gas is being turned on, and also serve as a torch to ignite the gas.

25,123.—Thos. J. Jolly, of Olean, Ind., for an Improved Washing Machine:

I claim the described arrangement and combination of the treadle, I, sliding-table, C, and rotary rubber, D, the whole being constructed and operating in the manner and for the purpose set forth.

and operating in the manner and for the purpose set rout.
25,124.—Morris L. Keen, of Beger's Ford, Pa., for Improved Machinery for Manufacturing Artificial Fuel: I claim, first, The combination and arrangement of the mills, conveyors, mixing and heating cylinders, molding and conveying aparatus, substantially in the manner and for the purpose described. Second, I also claim the combined use of the nolding apparatus, and of the tank or reservoir of water, for the purpose described. Second, I also claim the combined use of the nolding apparatus, and of the machinery and fuel and for preventing the material from adhering to the machine, substantially as described. Third, I also claim the combination of the endless appron with the modding apprimatus, operating in a tank or reservoir of water substantially if the manner and for the purpose described.

25,125.-Hazard Knowles, of New York City, for an Improvement in Clasps for Fastening Bands on

Cotton Bales, &c.: I claim the method of securing straps by means of a roller, sub-antially such as described, in combination with the wedge-formed ortise of the sleeve, which receives the strap, substantially is described

25, 126.-S. S. Langdon, of Cleveland, Ohio, for an Improved Churn: I claim the above

proved Unurn: I claim the aboved escribed construction and arrangement of rotary churns when the same are provided with the dash frame, K, and chambers, E, and the whole constructed, arranged and operated sub-stantially as set forth.

25,127.-Joel Lee, of Galesburgh, Ill., for Improvement.

20,121. — JUST LICE, of Calculating, and the form of a swords fitting closely together, the front one at-tached to the mole near the forward point, the rear sword pivoted near the rear point of mold. Second, The lever, in combination with the swords for operating or adjusting the front sword and the mold.

25,128.—John Magee, of Lawrence, Mass., for an Improvement in Stoves:
I claim the arrangement of the pot-grate, A, the hot air-chamber, H, together and with direct descending and base flues, substantially as specified.

25,129.-Joseph P. Markham, of Pennfield, Mich., for Improved Tuyere:

Improved Tuyere: I claim, first, The use of the indented, valve, K, in combination with the outlet passages, H, constructed and arranged substantially as herein described, in such manner that, by moving said valve back and forth underneath the outlet, it will admit the wind to or shut it off from said outlet, equally and gradually, on each side of the central tube, I. Second, I claim the mode of making the loose nozzle, J, inde-pendent of the masonry for support, by the use of the tube, I, and its socket; in combination with the ribs, G G G G, and corresponding rebates, substantially as set forth.

25,130.-Rufus Maxwell, of Tucker County, Va., for an I claim the construction of racks for endless towels, with a slot, a b, and opening, c, substantially as and for the Purpose described.

25,131.—Chas. H. McAleer, of Chambersburgh, Pa., for an Improvement in Binding Apparatus for Harvesters:

I claim the app ratus or elevator for raising and compressing the gavel, constructed and operating in the manner substantially as de-scribed.

25,132 .- W. Howard Mitchell, of San Francisco, Cal.,

for Improvement in Rotary Movement: I claim two or more reversed, self-detachingpawls or catches, work-ing on opposite sides of the peripher y of the ratchet wheel, by being attached to arms working in parallel lines and in the same direction, constructed and operating substantially as and for the purpose speci-fied.

fied. I also claim the combination of the ratchet wheel, R, with the pawls or catches, P and P, and flanges, E, and the cross-beam, B, with parallel arms, G, substantially for the uses and purposes set forth. I also claim the combination of the ratchet wheel with the flanged casing or flanges.

25,133.—George J. Montjoy and Joel B. Sawyer, of Houston, Texas, for an Improved Rotary Steamengine:

We claim the arrangement of the passages in the double elbow bleece, E Z, and the reversing cock or valve F, in combination with he passages in the stationary hollow shaft, D, and its abutment, H, he whole applied in connection with the cylinder and its sliding pis-ons, to operate substantially as described.

[The rotary engine will surely come into use at some future time, to reward the inventors for the time and money they have spent upon it. The present improvement consists in a certain novel arrange-ment of passages and a reversing cock or valve, in combination with the passages in a stationary hollow shaft and abutment and with a suitable system of pistons, which makes it simple in its construction and enables it to work with very little friction.]

25,134.—Willis G. Murphy, of Seguin, Texas, for an Improvement in Seed-planters:

I claim the arrangement of the beam, A, hopper, C, wheels, D J H and E, seeding wheel, R and B, helve, 14, pilow, T, covers, s, and onductor, V, as described, and for the purposes set forth.

25,135.—Rudolph A. Nathurst and John L. Stewart, of Nashville, Tenn., for an Improved Safety-rein for

Nashvine, Ienn., for an improved Sately-ten for Bridles: We claim the connection of the choke-strap with the common or ordinary driving rates, so as to act and serve for both purpose of driving and safety-rein, substantially as described, and this we claim whether it be temporarily or permanently affixed to the bridle or halter, whether a bit is used or not. 25,136.—Cæsar Newmann, of New York City, for an Improved Skeleton Skirt:
 I claim the combination of the jointed or hinged hoop supporters, and a series of horizontal hoops, when stranged and operated in the manner described and for the purpose set forth.

25,137.-J. J. Parker, of Marietta, Ohio, for an Im-proved Steam Slide Valve: I da mplacing the valves loosely on the hollow arms of the side pipe and contracting the supply openings from the valves, substan-tially in the manner described, for the purpose of employing the pressure of the steam to keep the valves in contact with their seats, as specified.

25,138.—John C. Pedrick, of Washington, D. C., for Improved Ball Furniture Casters:

I claim inserting into a metal cup containing the ball of a caster eparate anti-friction bearing, f, against which the ball revolve hereby lessening the friction of the ball in the metal cup or sock a described.

25, 139.-Thos. E. Roberts, of Allamance, N. C., for an

Improvement in Trucks for Railroad Cars, &c.: I claim the construction and arrangement of the concave chilled plates, B, and convex chilled plate, C, with each other in the manner described, and their combination with the self-oiling iction rollers, G O H, for the purposes fully set forth.

25,140.-James H. Roome, of New York City, for an Improvement in Shears:

Improvement in Shears: I claim combining one limb, C D, of a pair of shears, or other similarly operating band-cutting instrument, with its handle, F, forming part of a separate lever, E G, and combining the said limb and handle with the other limb of the shears by means of an arm, f, attached to the said lever, E G, and operating onthe rear portion, D, of the first mentioned limb, a link, F, connecting the said limb with the said lever, and a movable fulcrum connection, g h, between the said lever and the other limb, the whole operating, substantially as described, to cause the power of the said lever to increase as the shears close.

One limb of this pair of shears is combined with a handle formin part of a separate lever, and of combining the limb and handle with the other limb of the shears, whereby the leverage exerted by the thumb or hand in cutting is gradually increased as the shears clos and a drawingcut is produced.]

25, 141.—Wm. N. Rowe, of Sharpsburgh, Md., for an Improvement in Carriage and Wagon Jacks: I claim the adjustable sliding catch-plate, B, operating as described, in combination with the grease box, F, and jack, as set forth and de-scribed.

25,142.—Jacob Rupertus, of Philadelphia, Pa., for an Improved Percussion Pellet for Fire-arms: I claim the employment, for enclosing the detonating compound, of a metal capsule of spherical form, substantially as described.

25,143.-John Scheeper, of New York City, for an Im-

provement in Stoves: I claim the arrangement and combination of the fire-chamber, A: overa, B CD, and flues, k11 q q n n, substantially as and for the pur-pose shown and described.

[This invention consists in a peculiar arrangement of a fire-cham ber with ovens and flues, so that the radiation of heat from the stove isa in a great measure, prevented, and retained to heat the several ovens. It also admits of a very economical use of fuel when used for cooking

with vessels directly on the fire, as in frying, boiling, &c.] 25,144.—Henry W. Shipley and Zohar Blair, of Mount Vernon, Ohio, for an Improvement in Portable Iron

Vernon, Ohio, for an Improvement in Portable Iron Husk Grist Mills: We claim the husk, A, and bup, A', composed of lower and upper sections, the same being turned and fitted coeffluer, as described, and supported upon a france, C, for the purpose of making the whole port-able and complete fir first 2. We claim comending the stone is the interior of the cup A, which also forms the upper links, as specified. We claim the cup, M, constructed and fitted substantially as de-scribed, and cementing the stone thereto, so that both will revolve together.

get claim the bridge trees, D and G, in combination with thebusk, p, A', and frame, C, when arranged and operating substantially

A, cup, A , as set forth.

25,145.—Henry Soggs, of Columbus, Pa., for an Improved Butter Worker: I claim the tray, d, with convex bottom andends, set on an inclined plane of rollers, working in combination with the evilader, a, and ribs, b, for the purpose of working the milk and superfluous matter from the butter, as the same time leaving channels in said butter through which the milk, &c., may escape.

25,146.—David Stoddart, of San Francisco, Cal., for an Improvement in Slide Valves of Steam-engines: I claim, first, The employment of the elastic plate, D, in combina-tion with a cavity, B, and a balance frame, C, sibstantially as and for the purpose shown and described. Second, The ombination of an adjusting spring, m, and screw, n, with the elastic plate, D, substantially as and for the purpose shown and described.

[A flexible metallic plate is applied, in ombination with a balance

frame, between the back of a slide valve and the back of the stean chest, whereby the valve is relieved of unnecessary pressure and sary pressure and caused to work with very little friction. This is the invention. valve and the balance frame are constructed of a certain form, The spring and set screw are so applied, in combination with the flexible plate and balance frame, as to compensate for the wear of the frame the valve and seat.]

25,147 .- William Mont. Storm, of New York City, for

an Improved Steam Generator: I claim the plan or method of conveying water from a closed tank or reservoir to the heating surfaces of a steam generator by capillary attraction, for the objects described. Second, I claim so constructing and locating the said supply tank that the influence of the best upon the water contained therein for feed, while elevating its temperature, shall in no case bring it up to the steam-generating or bo ing point under the given pressure.

the steam-generating or B0 ing point under the given pressure.
25,148.—Francis M. Strong and Fhormas Ross, of Brandon, Vt., for an Improvement in Weighing Scales: We claim the arrangement of the bars, C D, of the Jarger platform, B, a shown, to wil, one lever crossing the other at about right angles to those of the fort-pice s, a of one lever will be at right angles to those of the fort-pice s, a of one lever will be at right angles to those of the fort-pice s. a of one lever generated or when the baring prevented.
We further claim attaching the arms, E E, of the levers, C D, either part, I of the scoop or smaller platform, H, rest on knife edged barings, k k, on the beam, and and having the bar, I, of the scoop or smaller platform, H, rest on knife edged barings, k k, on the beam, and for the purpose set forth

25,149.—B. F. Sturtevant, of Boston, Mass., for an Im-proved Blank for Shoe-pegging Machines: I claim, as a new article of manufacture, a blank or strip of shoe pege cut around the log, substantially as described.

25,150.-N. G. Thom, of Cincinnati, Ohio, for an Im-

proved Machine for Nicking and Trimming Heads of Screws:

claimfirst, A revolving or rotating head, which revolves around a ky of spindles or blank holders with an intermittent or interrupted that, carrying upon it the necessary apparatus and tools for ving nicking and trimming, or otherwise finishing the heads of aw blanks. rtes o orion shaving, scre $n_{\rm datas}$, nd, In combination with the spindles or blank holders, I claim nular $c_{\rm d}$ m, m, having internal and external inclined surfaces.

for the purpose of raising the spinlle in the nicking process and oterating the grinpers by acting into the one rod, b.
Third, I combination with the spindles or blank holders, I claim the rod, d, and spring, e, or its equivalent, when such a spring, or quivalent, is made to net yoot the rod at required intervals, te the blank, by being attached to some rotating or reciprocating mechanical equivalent, while the spring, n, and each, I, or other mechanical equivalent, while the machine, for the purpose set forth.
Tourth, I claim the lever, r, and the spring, n, and each, I, or other of the runners, a because the blank to be nicked is not acted upon, and the intervals te the specific containing the blank to be micked is not acted upon, and the necessary tools on the bey at all points in the revolution of the head revolves, or nearly so, and the cams revolve while the head revolves, or nearly so, and the cams revolve while the head revolves, or nearly so, and the cams revolve while the head revolves, or nearly so, and the cams revolve while the head revolves, or nearly so, and the cams revolve while the head revolves, or nearly so, and the cams revolve while the spindles or blank holders, whether such blank holders are acted upon in such manner that the scal care revolve while the head revolves, or nearly so, and the cams revolve while the head revolves or blank holders, whether such blank holders are acted purpose set forth.
25,151.—Andrew Turney, Jr., of Fairfield, Conn., for

25,151.—Andrew Turney, Jr., of Fairfield, Conn., for an Improvement in Laying Submarine Telegraph Cables:

Cables: Labies: La

25, 152. —John Wagoner and Abram Severson, of Guild-erland Center, N. Y., for an Improved Washing Machine:

We claim mounting the revolving platform, K, and the pulleys and gearing, P Q R, or their equivalents, on the hinged platform, M, and so arranging the whole that, when M is turned up, the driving belt, O' is slackened, and the whole lies within or by the side of the main frame; and when M is turned down the gravity of the tub, or equiva-lent vessel, tiphtens O and causes the several parts to operate with-out any labor lnadjusting.

25, 153.-Samuel Wethered, of Baltimore, Md., for an

20,100.—Samplel wethered, of Baltimore, Md., for an Improvement in Carding-engines: Iclaim, first, A card-clothed main cylinder for carding engines, which-performs a lateral vibrating movement simultaneously with its revolution, substantially as and for the purposes set forth. Second, A card-clothed "fancy" or upper cylinder, which is cap-able of performing a lateral vibration as it revolves, in combination with a laterally vibrating card-clothed main cylinder, substantially as and for the purposes set forth.

25,154 .- Julius Wehle, of New York City, for an Im-

25,154.—Julius Wehle, or New York City, for an improvement in Hat Measures: I claim, first, The divided handle, in combination with the elastic oval strip A, for the purpose of contra ting the said oval strip, substantially as described. Becured to one of the handles, and passing through an incision of the other handle, in combination with the screw, N, substantially as described, for the purpose set forth.

25.155.-Y. B. Williams, of Freeport, Ill., for an Im-

1. D. Williams, of Freeport, Ill., for an Improved Horse-power Machine: I claim the arrangement and combination of the circular standard, toothed rim, B, ring, C, pholond. D, wheels, E, pholon, C, koolied ing, G, and Finico, H, to operate substantially sa and for the purpose pecified. specified. [This invention consists in arranging a series of head-wheels,

toothed rings, pinions, shafts and pullies in such a manner that the greatest velocity is obtained with the least amount of power, and that The power may have been transmitted from different places according to the required velocity.]

25,156.—William S. Williams, of New York City, for an Improved Machine for Bundling Kindling Wood :

Wood: I claim, first, The feeding clamps, f, and sli es, d', arranged and actuated in subscantially the manner and for the purposes set forth. Second, I claim the combination of the separating and dividing knife, h, will the concavewood earrier, h2, to conver the wood to the bundling apparatus, as specified. Third, I claim the eliding support, g 1, arranged and acting as set forth, to sustain the k ndling wood as fed into the machine, and keep it i place, as described and shown. Fourth, I claim the curved gatherers, ', fitted and acting as set forth, to deliver the bundle of wood and gather the next loose wood into a bundle, as specified.

orm, to deriver the builde of wood and gather the next loose wood not a bundle, as specified. Fifth, I claim the conical gatherers, 1 and m', to concentrate and ompre a the bundle of wood, as described and shown. Sixth, I claim the stationary just, c, k, and segments, 15, in ombina-ion with the conical gatherer, i, to sustain the wood while acted upon, a smerified

Seventh, I claim the stationary parts, k and segments, h in onto implication with the conical gatherer, i, to soustain the wood while acted upon, as specified. Seventh, I claim the plunger or press-block, m, acting to bring the ends of the bundle of wood level, as set forth. Eight, I claim the vertical moving frame, o, forming the receptaclefor the wire, and the guide for the appart. State we have a set of the appart of the wire around the bundle of wood, as set forth. Ninth, In combination with the frame, o, I claim the chain, 28, to wrap the wire around the bundle of wood, and the clamp, s', to hold the wire near the middle part thereof, as described and shown. Tenth, I claim the circular twisting jaws, 30, moving in dovetails, and acting, when revolved by competent means, to twist the ends of the wire together, in the manner and for the purposes specified. Eleventh, I claim the spring guides, 25, to keep the wire straight wille pussed into the machine, in combination with the straing jaws, 50, for the purposes jaw will pussed into the machine, in combination with the straight will pussed into the machine, in combination with the traveling jaw or lamp, p, and with the straight will pussed into the machine, in combination with the straight will pussed into the machine, in combination with the traveling jaw or lamp, p, and with the straight will pusted and shown.

25, 157.—John Alexander (assignor to himself and Jas. Ritchie), of Brooklyn, N. Y., for an Improvement in Patterns for Molding: I claim the employment or use of a "former," C, with a pattern, D, constructed of a plastic substance and formed on or over the "former," C, substantially as described, to produce molds in sand for the casting of hollow ware and other casti gs of the exact thick ess required.

required.
25,158.—Chas. Bradfield (assignor to C. Stewart Bradfield), of Philadelphia, Pa., for an Improvement in Hanging the Bodies of Wheel Vehicles:
I claim, first, Attaching the wheels, C, to the body, A, by means of the arms, e, secured to the traverse hars, d, of the shafts or arbors, b, which are fitted on the flarch's, a, and burrings, c, of the plates, B, of the body, A, and have springe, D, blued between their fanches, a, and traverse bars, d, substantially as and for the purpose set forth.
Second Attaching the thills, E, to the body, A, by means of the bars, G, fitted in the eyes, c, and secured thereon at the desired hight by set screws, b, substantially as described.
[The wheels of this vehicle are attached to the body in a novel way so that the body can be placed quite low or near the earth, and at the

so that the body can be placed quite low or near the earth, and at the same time wheels of large diameter be employed in connection with spring. The invention also consists in a novel way of attaching the spring. The invention also consists in a novel way of attaching the thills to the vehicle, whereby they may be readily adjusted higher or lower to suit the hight of the draft animal between them,]

© 1859 SCIENTIFIC AMERICAN, INC

141

25, 161.—Miles B. Hand (assignor to minself and Shei-don B. Hand), of Handsboro', Miss., for an Im-provement in Cotton Presses: I claim the combination of the togeles, C C, and screws, E E, when the latterare connected to the driving or power shaft, or to a shaft connected therewith, by means of universal joints, H H, substantially as and for the purpose set forth.

[This improvement is applicable to all presses, and forms a very

simple, compact and powerf uloperating mechanism.]

25,162.—John J. Lehaye, of Reading, Pa., assignor to himself and John Tucker, of Philadelphia, Pa., for

himself and John Tucker, or Finaderpina, La., so an Improved Churn: I claim the vessel, B. cylinder, C, and reciprocating plunger, E, adapted to and arranged in respect to each other, substantially as set forth, in combination with the devices described, or their equiv-alents, forenlarging or contracting at pleasure the communication betweeen the said cylinder and vessel, for the purpose specified.

25, 163.-Cæsar Neumann, of New York City, assignor

25, 163. —Cæsar Neumann, of New York City, assignor to Abraham Prince, of Boston, Mass., for an Im-proved Machine for Making Hooped Skirts:
I claim the combination of a series of twisting apparatus, with guiderods, for the purpose of forming a hoop skirt, substantially in the manner and for the purposes set forth.
I also claim, in combination with the twisting apparatus, the ele-vating screw and its appendages, and the mode or operating the same, as described.
I also claim collapsing the guides to form different sized skirts and to deliver the same, as specified.

25,164.—Robert Poole (assignor to himself and G. H. Hunt), of Baltimore, Md., for an Improvement in the "Fifth Wheel" of Fire-engines and other Vehicles:

LUCS: I claim hanging the pivoted fifth wheel of a steam fire-engine, or other heavy carriage, to a bolster when the latter plays within or over the axle of a vehicle, and is suspended to springs which have their bearings or seats on said axle, substantially in the manner and for the purposes described.

25,165.-E. L. Pratt (assignor to himself and R. B. Fitts), of Philadelphia, Pa., for an Improved Meat Safe:

Safe: I claim a new article of manufacture, being a combined arran ment of a cover, A, perforated with small holes at the apper part, and a stand, B, also perforated with small holes, f, substantially and for the purpose specified.

25, 166.—John B. Wickersham and Henry Jenkins, of Brooklyn, N. Y., assignors to the New York Wire Railing Company, for an Improvement in Iron Fences:

We claim constructing railways, fences and other articles by metal-lic bars intersecting each other, and united by a c st.iron ornament or connection, when one or more bars running parallel, or in one di-rection, pass through between two or more bars running in another direction, substantially as specified.

25, 167.—Archilaus Wilson, of New York City, assignor to D. A. Heald, A. L. Wılmarth, C. T. Martin and H. A. Hurlburt, for an Improved Mode of Light-

and H. A. Hurlburt, for an Improved Mode of Light-ing Gas by Electricity: I claim combining, with a gas or other burner, metallic points approaching but not coming in contact with each other, substantially as described; but this I only claim in combination with the inductive apparatus, substantially as described, for the purpose of effecting ignition by means of the electric discharge or spark, as specified. I also claim, combining with a galvanic battery, an inductive apparatusor coil, metallic points and an electro-magnet, for the pur-poses specified and substantially as specified.

RE-ISSUES.

G. W. Bishup, of New York City, for an Improvement in Breech-loading Ordnance. Patented Sept. 9,

1000: I claim combining the movable breech-pin with the bore of the can-non by means of movable locking or abutting pieces or segmente, substantially such us described, and which, after the breech-pin is inserted, are shifted and made to cross the joint of the breech-pin and bore, to hold the breech-pin against the force of the discharge, as set forth. ch-pin is h-pin and

Allan Cummings, of New York City, for an Improvement in Ash-sifters. Patented March 8, 1859; reissued Aug. 6, 1859:
I claim the employment of a conical seive, or seive of an equivalent form, in combination with the two receptacles, one for the slifting and the other for the substance sifted, substantially as and for the substance sifted, substantially as and for the sitting the side of the described.
I also claim the coni al deflector for deflecting the side stances to be sifted, and concentra ing them in combination with the spreader, substantially as described.
I also claim the coni and deflector for deflecting the side stances to be sifted, and concentra ing them in combination with the spreader, substantially as described.
I also claim, in combination with the serve, the under conical surface of the deflector for preventing the escape of dust from the apparatus, as described.
And I also claim, in combination, the deflector, the spreader, the conical serve, and the substantially as and for the purpose prediction.
Ralph J. Falconer, of Washington, D. C., for an Important of the side side of the side stanting.

Ralph J. Falconer, of Washington, D. C., for an Im-

Harpu J. Faconer, of Washington, D. C., for an Im-proved Sash-fastener. Patented Aug. 31, 1858: I claim extending the cap portion, m', of the catch, m, over and along the front edge of the catch-plate, n, to form a catch-opening, x, flush with the edge of blate, n, so that the window cannot be un-fastened without lawing the point of the hock, a withdrawn entirely clear from the meeting-rail of the upper scale, and out of the way of the hars above when the lower such is mised. Second, And in combination with the catch, m, hook, a, and plate, e, I claim the check, u', or equivalent thereof, for the purposes speci-fied.

fied.
J. R. Robinson and H. S. Robinson, of Clinton, Mass., for an Improvement in Valve Cocks. Patented Aug. 31, 1858:
I claim, first, The method of constructing valves, valve-cocks and gates, substantially as specified, sothat, when the port or ports therein are uncovered, there shall be a straight passage or passages from the induction port or ports in the valve chamber to the eduction port or ports in the same, for the purposes described, whether the valves in such valves, valve-cocks and gates are made in one or more than one piece.

And second, Making the valves in valves, valve-cocks and gates in separate or detached pieces, substantially as and for the purposes de-

separate

Francis Wolle, of Philadelphia, Pa., for an Improvement in Machines for Making Paper Bags. Patented

July 6, 1858: I claim, first, The combination of the creaser, C, and lappers, F G, arranged and operating substantially in the manufacture of a bag of paper, pose described and set forth. Second, The folding of a lap in the manufacture of a bag of paper, faces operating in combination with each other, substantially as de-scribed.

faces operating in combination with each other, successful as soribed. Third, The revolving lapper shaft, U, in combination with the creaser, V S, the feed-voller, M, and a prons, u, q, substantially as described, the creaser being brought into operation on the lap during the intermission in the motion of the feed-rollers.

the intermission in the motion of the feed-rollers. Conrad Poppenhusen, of New York City, assignee of L. Otto P. Meyer, of Newtown, Conn., for an Improve-ment in Treating Caoutchouc and other Vulcan-izable Gums. Patented April 4, 1854: I claim the mode of operation come of e proceedure, substantially such as described, which said mode of operation consists in the em-ployment of a pllable of facility envelope, substantially such as de-scribed, or the equivalent thereof, applied by pressure to the hard compound of vulcanizable gum, while in the green or plastic state, so as to insure the contact of such covering with the surface of the com-pound, and while thus covered or protected, subjecting it to the vul-catizing heat, and when vulcanized, stripping off such coring, the whole process being substantially such as specified.

whole process being substantially such as specified.
Christian Shunk, of Canton, Ohio, for an Improvement in Refining Iron in the Heat of a Blast Furnace. Patented May 17, 1859:
I claim the employment, immediately before the tapping of the furnace, of an auxiliary tuyere pipe or pipes within the hearth of the common blast furnace, when charged with molten iron, at such an inclination as to cause the blast of air to commingle with the particles of iron and give to the whole mass in the hearth a spiral or rotary motion, substantially as described.

EXTENSION.

Beriah Swift, of Washington, D. C., for an Improve-ment in Grinding Mills. Patent dated Aug. 16,

ment in Grinding Mills. Patent dated Aug. 16, 1845: I claim making the grinding teeth of mills, in concentric rows, pro-fecting from the surface of the plater, so that the teeth of ene plate shall run in the spaces between the teeth on the other, and vice versa, in combination with the grooves or furrows running towards the peri-phery of the plates, through which the substances acted upon are car-ried outwards, whether these furrows be arranged radially according to what is technically termed the eight quarter dress, or in any other manner leading from the inner to the eiter range of teeth. And I also claim, in combination with the teeth arranged as ex-promeded in the above claim, the breaking the teeth on a cylinder or cone, arranged substantially as described and for the purposes speci-ifed.

DESIGN.

Garrettson Smith and Henry Brown (assignors to Cox, Whitman & Cox), of Philadelphia, Pa., for Stoves.



- J. A., of Conn.-It is very difficult to form an alloy with antimony and copper, and it is not so strong as cast-iron. Tir and antimony form an alloy that is both hard and tough, and with the addition of lead it forms type metal. Antimony does not combinewithcarbon likeiron.
- N. H., of Conn.-If you employ dextrine for making Dutch metal adhere to paper, you will find it superior to the white of eggs. Good size made by boiling parchment clippings is superior to dextrine, but is more expensive. A solution of isinglass mixed with whiskey, we think, will answer your purpose better than any oth
- S. W., of Cal.-A pump 20 feet in length will not raise water easier than one 10 feet in length from a pit 10 feet deep. If the short pump to which you refer requires more power to work it than the long one placed besideit, you may depend upon it that its buckets are set so as to cause more friction, or else it draws more water.

J. D., of --.-All vulcanized india-rubber is made under Goodyear's patent. You would have to buy it for making elastic boot heels, but we do not think you could obtain a patent for it, as all waterproof overshoes have heels of this material.

J. Y. H., of Pa.-We cannot well determine as to the exact rights of the parties in the case you mention, without seeing a copy of the deed of assignment. But we will state, in general terms, that if an individual purchases a cider-mill, with right of use in a certain town, he has a right to use it anywhere in that town He may use it in his own house or in that of his neighbor. He may The may determine own induce of in that of ma harmonic inferma-use it personally, or his neighbor may use it as his representative. The originalowner of the patent would, under such circumstances, have no right to demand back pay for the loan to a neighbor, nor could he, at law, recover damages for such continued loanings. If the facts in the case resemble the above the \$2 paid was incorrectly demanded; but if the deed expressly limits the use of the machine would have no right to use it elsewhere.

S. T., of Mass.-Common mortar used for roofing would be liable to crack ; if saturated with oil of sulphur varnish, it may prevent this tendency

C. G., of Iowa.-Your subscription will expire with No. ol III., or one year from next November.

H. M., of Ky .- When it is satisfactorily demonstrated by experiments that water-wheels do more work during night than day it will be time enough to seek for the cause of the pheno T. A. S., of Va .- The stone you send us is a common et, and is not of any value.

S. W. G., of N. Y.-There is no work published containing the dyeing recipes to which you refer, and back numb is con taining them cannot be obtained.

W. I. L., of N. Y .- We do not understand your views regarding the earth having two revolutions on its axis as prese in your letter, but suppose you mean that its annual revolution round the sun involves an axial motion besides its daily rotation on an axis. If so, your views will not be disputed

C. H. C., of Ala.-The Babbitt patent is for lining the hard shell of journal boxes with a softer metal: there is no patent on the metal

W. B., of Minn.-The falling of the mercury in a weather-glass indicates a storm of wind and also rain, but the reason why is not well understood.

C. D. P., of N. Y.-Fine emery is employed for grinding and either calcined the or calcined sulphate of ron for polishing lenses. Boiled linseed oil containing a drier, such as litharg, is about as good a waterproof varnish as you can employ for waterproofing o tton cloth

W. K., of Mo.-The furnace of a saw-mill for burning saw-dust, chips, dc., should be lined with the best fire-brick, and made somewhat deeper than one for burning coal. If we were in your place, we would use a grate five feet loggad three feet wide, and would feed in the chips on the front end, and push back thered fuel gradually.

E. A. D., of N. Y .- If you take an equal quantity of

saturated steam at 250° and superheated steam at 250°, the former will contain the most latent heat, and will therefore require more water to condense it: but if a certain volume of satu rated steam at water to contende it, but it a certain volume of sati rates scan at 255° is superheated to 33° , it will certainly require more water condense it, because the total amount of heat in it is greater. The article to which you refer embraces this idea.

A. C. T., of N. Y .- We can only refer you to our back volumes, where you will find illustrations and descriptions of all kinds of windmills. As to which is the best adapted for your special purpose or location, you must be your own judge.

D. A. J., of Pa.-A square frame with wires stretched scross to guide the hand will enable a blind person to write in straight lines, and prevent the letters running into one another by moving the hand continually along a certain wire. There is no ma chine by which a blind person can write in raised letters. Mr. Chapin, of the Institution for the Blind, in your city, will giveyou any information concerning appa atus for the blind.

H. D. E., of N. Y .- Three-cornered files are only made small at one end, and that is for doing smaller work than the larger, and also to make the cut easier by commencing narrow, and gradually wideping to the end of the file.

E. R. C., of C. W .- If your battery and solution are in good condition, the white metal only requires to be perfectly clean, in order to take on the silver for polishing. We thinkyour articles have not been properlycleaned before you put them into the electro-plating baths.

N. L. O., of Pa.-When you come to this city, you will see how our office is heated and ventilated. It is held to be a very efficient and superior method.

W. C. K., of Texas .- Write to Mr. James Bogardus, Center-street, this city, and he will furnish you with a grinding mill suitable in every respect for your purpose; but we do not think you can succeed in making pottery without employing a practical man to conduct the busines

L. A. R., of N. Y .- We cannot refer you to any work defining the character of the Virginian cannel coal. G. V. A., of N. Y.—We have no doubt that Goodwin's

wheel is a good one. It has been illustrated and described in our paper.

L. A. B., of N. H.-There is not the slightest chance for a patent on your alleged improvement in devices for producing reciprocating motion in harvesters. The zig-zag wheel has long

been known for this purpose. W. M. H., of Md.—You will find the information you seek (on pumping water) in another column

S. S., of Mo.-The shining particles in the sand which you have sent us are mica scales. The red chalk is anoxyd of iron. It is of no practical value. Send us a good sketch of your fence, and we will be able to judge of its patentability.

D. R., of N. C.-The paragraph in No. 7, stating that "there are on the earth 1,000,000,000 inhabitants, and that of these \$3,353,358 die everyyear, 7,780 everyhour, and 60 every minute,' was inserted by the printer to fill upat the last moment beforegoing to press. When too late, we noticed the error in its calculation, but did not deem it of sufficient consequence to correct it.

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, Aug. 20, 1859:-

Office business, for the week ending Saturday, Aug. 20, 1859:--H. W. W., of Cal., \$30; E. C., of Mass., \$250; E. D., of La., \$30; R. S. U., of N. Y., \$20; W. H. B., of N. Y., \$30; J. C. A., of Ohlo, \$40; A. H. P., of Mass., \$25; W. R. A., of Wis, \$22; R. C. F., of N. \$30; D. A., of N. Y., \$20; S. & M., of N. Y., \$30; J. C. W., of Mo.,\$25; W. D. J., of N. C., \$75; H. R. B., of N. Y., \$30; J. K., of '.Y., \$35; G. W. B., of Ga., \$35; F. S., of Mich., \$30; S. F. Van C.,of Cal., \$20; B. & C., of N. Y., \$30; J. M. C., of Ky., \$30; J. H., ofMich., \$35; W. & S., of V., \$30; N. W., of Wia, \$55; L. H., ofMich., \$35; W. & S., of V., \$30; H. S. L., of Ill., \$25; I. MCC.,Jr., of Mass., \$30; Van H, & A., of Mo., \$20; A. T., of Conn., \$27;G. C. B., of Ill., \$20; C. & B., of Conn., \$10; C. C. B., of Ohio, \$20;S. & C., of Maine, \$30; P. K., of Conn., \$10; I. A., of N. J., \$40; J-H. F., of Ohio, \$25; R. T. C., of Ill., \$10; H. W. B. R., of La, \$70;H. M., of Va, \$25; J. A. C. O, of N. Y., \$25; L. & V., of N. Y., \$55;F. G. L., of N. Y., \$30; J. M., of Mass., \$30; A. L., of Maine, \$30;B. & C., of Pa., \$30; J. M., of Mass., \$30; Y. M., of Maine, \$30;B. & M., of Iowa, \$30; L. & H., of Ill., \$30; W. M., of Maine, \$30; B.S. M., of Iowa, \$30; H. W. H., of Conn., \$100; J. S. L., of PA., \$30; B.F. & C., of Pa., \$30; L. & H., of Ill., \$30; W. M., of Maine, \$30; B. S. M., of Iowa, \$30; H. W. H., of Conn., \$100; J. S. L., of Pa., \$30; J. S. D., of N. J., \$10; W. & C., of Ind., \$30; W. M. H., of Vt., \$25; W. & F., of Mo., \$25; A. L. F., of N. Y., \$30; O. C. McC., of Ohio, \$30; E. K. B., of Conn., \$25; W. C., of Ill., \$30; J. W., of S. C., \$45; J. & F. E. H., of N. Y., \$350; P. B., of N. Y., \$55; J. H. L., \$55; J. M. of Maine, \$26; J. H. G., of KY., \$30, L. & V., of N. Y., \$55; J. M. C. of N. Y., \$250, P. B., of N. Y., \$55; J. H. L., \$55; J. M. C. of M. C. of KY., \$30, L. & V., of N. Y., \$55; J. M. C. of N. Y., \$55; J. M. C. of N. Y., \$55; J. M. Son, Y. M £55; C. W. C., of Ill., \$26; E. K. B., of N. J., \$29.

Specifications, drawings and models belonging to par ties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Aug. 20, 1859:-

N. W., of Wis; C. & B., of Conn.; A. T., of Conn.; A. H. P., of Su Mass; C. W., of Iowa; E. & R., of Mich; I². C. L., of N. Y.; J. H. F., of Ohio; H. M., of Va; W. & S., of Vt; P. B., of L. I.; W. R.

A., of Wis; H. S. L., of Ill; W. & S., of Vt; L. H., of N. Y.; W. & F., of Mo.; A. B., of N. Y.; W. D. J., of N. C. (three cases); J. M., of Ill; J. H. L., of N. Y.; I. W., of Mass.; T. G. G., of Ill; D. A., of N. Y.; S. & C., of Maine; W. M. H., ot Vt; E. K. B., ot Conn.; J. M., of Maine; H. & T., of N. Y.; E. K. B., of N. Y.; A, & B., of N. J.; C. W. C., of Ill., L. & V., of N. Y.; A. L., of Mich.

Literary Notices.

THE EDINBURGH REVIEW. Published by L. Scott &

Co., this city. The present number is the first of a new volume (LL.), and is a teriing issue. It contains 11 able articles, one of which on "Fossil outprints" — is full of interest to American geologist. MANUAL OF HEALTH: a Treatise on the Anatomy of the Human System. Copiously illustrated with colored engravings. This manual is a book which should be found in every household. Grasfenberg Company, publishers, No. 32 Park-row, New York. Price by mail (paper covers), 25c.; bound copies, 50c.

-History of the Scientific American and Important Information to Patente

We have printed a supplementary edition of the SCIEN-TTROAMENCAN, in which there is a history of its rise and progress, with illustrations of the building, externally and internally, showing the spacious rooms in which our immense patent business is conducted, and with life-like representations of the artists, engi-neers and specification writers at their daily labors. The same pa**per contains information on the many intricate points arising in** patent law and practice, and comprises the best popular treatise on the subject ever published; it should be in the hands of all who are interested either in procuring, managing or using patented inven-tions. The legal information contained in this paper is the result of FOURTEEN YEARS' experience as patent solicitors, and it cannot be found in any other treatise on patent law. It also contains infor-mation in regard to Foreign Patents and Extensions. It is published in octavo form, sixteen pages, and mailed upon receipt of two three-cent stamps. Address MUNN & Co., publishers of the Ser-ENTRYC AMERICAN, New York City.

IMPORTANT TO INVENTORS.

IMPORTANT TO INVENTORS. MERICAN AND FOREIGN PATENT SOLICI-TORS.—Messis. MUNN & O., Proprietors of the Sommution American, continue to procure Fatents for Inventors in the United States and all foreign countries on the most liberal terms. Our expe-rience is of thirteen years' standing, and our facilities are unequaled by any other Agency in the world. The long experience, we have had in preparing Specifications and Drawings has rendered us perfectly conversant with the mode of doing business at the United States Patent Office, and with most of the inventions which have been pat-ented. Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office. Tousultation may be bad with the firm, between NYFS and your Volce, duity, at their PENNERAL OFFICE, No. 37 Paten Row, NEW YORZ, We have also established a BRANCH OFFICE in the CTry or Washingston, on the constra of F Asyn Swyzenie structure, opposite the Patent Office to all such cases as may require it. Inventors and others who may visit Washington, having business at the Patent Office, are cordially invited to call at our office. We are very extensively engaged in the pre-mendence of one of the firm, and 26 Rue des Eperonniers, Brussels, We think we may asfery say that there-foruths of all the European for fatents in the various kinged in the pre-mendences we have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris, and 26 Rue des Eperonniers, Brussels, We think we may afely say that three-foruths of all the European Patents is coursed to American citizens are procared through our Agency. The the submers we have file was in the area through our Agency. The other we have a file was the reaction and securing of the business we have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris, and 26 Rue des Eperonniers, Brussels, We think we may asfely say that three-fourthe of all the European Patents accured t

Patents secured to American cuizens are processed unough our Agency. Inventors will do well to bear in mind that the English law does notlimitthe issue of Patents to Inventors. Any one can take out a Patent there. A pamplitet of information concerning the proper course to be pur-sued in obtaining Patents through our Agency, the requirements of the Patent Office, &c., may be had gratis upon application at the Principal Office or reign Patents. Communications and remittances should be addressed to MUNN & COMPANY, No. 37 Park-row, New York.

SOUTH CAROLINA INSTITUTE FAIR, TO BE held in Charleston, November 15, 1859. Competities SOUTH CAROLINA INSTITUTE FAIR, TO BE held in Charleston, November 15, 1859. Competition open to all. Fair for the promotion of Art. Mechanical Ingenuity and Indus-try, at fuel' large and commodious building in the city of Charleston, S. C., commenoing on Tuesday, Nov. 15, 1869. Suitable premiums will be given for the best specimens in Art, Mechanism, and other branches in Industry. Also, for Cotton, Rice, Sugar, Tobacco, Corn, Wheat, Rye, Oata, Potatos, and other Agricultural Products. The ladies, to whom the Institute is so much indebted, are respectfully informed that suitable premiums will be provided by the committee, and awarded for the best specimens in avery department of ladlest work. All articles entered for premiums must besentin on orbefore Friday, the 11th day of Nov. next, directed to the care of Mr. THOS. AIMER Clerk of the South Carolina Institute, Charleston. Articles may be sent after that day for exhibition only. Contributors to the Fair are respectfully requested to send full descriptions of the arti-cles, and such general information as may be of use to the Judges, and eutable for publication. Every attentions of the arti-clessent for exhibition. 9 3t

JOHN WILEY,

JUTIN WILLEY, 66 WALKER-STREET, NEW YORK, Publishes Hatfield's American House-Carpenter. 1 vol., 8vo. \$2.50. Downing's Cottage Residences. 1 vol., 8vo. \$2.50. Downing and Wightwicks' Hints to Architects. 1 vol., 6vo. \$1.50. Fairbairn on the Application of Iron to Building Purposes. 1 vol., 8vo. \$2. Lesley's Iron Manufacturer's Guide to Furnaces, &c., &c. 1 vol., 8vo., #about Stiril Prostances in the furnaces, ac., &c. 1 vol., 8vo., Habout Stiril Prostances in the furnaces, ac., &c. 1 vol., 8vo., 100 pp. \$5.

Lesley's from Manufacturer's Guide to Furnaces, &c., &c. 1 vol., 8vo., 760 pp. \$5. Mahon's Civil Engineering. 1 vol., 8vo. \$3. Mone's Civil Engineering in vol., 8vo. \$3. Moseley's Mechanical Principles of Engineering and Architecture. I vol., 8vo. \$3.50. Reid on Ventilation of American Buildings, &c. 1 vol., 8vo. \$2. Smith's Topographical Drawing. 1 vol., 8vo. \$1.50. Smet's Dieterto-metal Drawing. 1 vol., 8vo. \$1.50. Smet's Electro-metal Urgy. 1 vol., 2vo. \$1.50. Kemp's Landscape Gradening, &c. 1 vol., 280. Kemp's Landscape Gradening, &c. 1 vol., 210. **Copies mailed and pre-paid, on receipt of the price.

NEW YORK MACHINERY DEPOT.—MILBANK & ANNAN (successors to A. L. Ackerman), manufacturers and dealers in Woodworth Plagers, Wick's Patent Re-sawing Machines; Saah, Door and Bilind Machinery, Steam-engines and Boilers, Ma-chinists' Tools, Flies, Leather and Rubb r-beiting, and findings of every description, No. 222 P arl-street, New York. 9 24

SCIENTIFIC BOOKS AND PERIODICALS. English, French and American Scientific Books and Periodicals supplied promptly to order by JOHN WILEY, Catalogues gratis. Foreign orders forwarded as often as once a week. 94