appearance and operation. The principle upon which they operate may be illustrated by the "ladies' chain" in a quadrille. A number of bobbins are fixed upon a horizontal circular platform. They are placed upon spindles, and by an ingenious mechanism are made to cance around each other and around the platform, at the same time whirling on their axes like nothing that we can conceive of but the figure in the quadrille alluded to. The threads are thus interwoven into beautiful and intricate textures.

In closing this article we wish to make some remarks upon what seem to us causes of failure in some attempts to manufacture silk in this country. We have already mentioned the difference in price of labor in Europe and America, and it will be seen that when labor is worth in France only one fifth as much as in the United States, and in England only one fourth as much, that without protection the Americans could not compete with them. The present tariff on pure manu'actured silks is sixty per cent ad valorem; on mixed silks fifty per cent; on organzine thirty-five per cent, and on raw silk nothing. The conclusions from these facts are obvious; but there is another effect of protection that will not be so generally perceived. France and England manuf-cture for a foreign market; the United States manufacture for themselves. The French workman is forced to be content with his blouse and wooden sabots, the Englishman with his corduroys. This state of things is necessary that labor may be cheap. The system abroad depresses labor, our system el evates it. Here the producers are consumers also, and enjoy in large measure the comforts of the more affluent, including educational facilities which render them able to prepare their children for higher stations in life as such open to them. This is proved by the fact that in the city of New York at this time large numbers of wealthy and prominent men are the sons of hard-working and industrious mechanics, who have, by virtue of their talents and business energy, risen from the ranks, to honor and preferment.

A fruitful cause of failure has been in injudicious location. No one who has examined the subject can have failed to perceive that peculiar manufactures tend to centralization, and in all industries requiring such intelligence as is necessary to conduct the manufacture of silk, this is the natural law. Those who ignore it must eventually suffer from its violation. We might adduce instance upon instance to illustrate this point but it will not be necessary. The names of Lyons in France, Birmingham and Sheffield in England, will suggest many others to the minds of our readers. The attempt to distribute this growing branch of industry rather than to concentrate it around the nuclei already established, must in our opinion prove disastrous. Add to the protection offered by the Government, the mechanical genius of the American mind, and a recognition of the laws of industry, and the permanent establishment of the silk manufacture in this country will be placed beyond question.

LITERATURE FOR WORKINGMEN.

A Baltimore journal, devoted largely to a very light species of literature, puts forth a plea for the more extensive circulation of that class of reading among the working classes This is quite natural. Interest is too often an of stacle to correct opinion. We were not, however, prepared to see such literature put at the head of all others, as being the precise thing that the masses need to supply their mental and moral necessities, as is done in the following quotation :

"The putting into the hands of the workingman imagina tive literature is even a more important advantage than the cheapening of scientific books. The tendency of mechanical employments is to exercise the understanding alone; they afford no diet for the fancy or the feelings. They leave unfed no small portion of the intellect. They do not enlarge the world of observation or experience. They do not open any of the doors of history or biography. The artisan, like the student, requires the hours of leisure to stand in contrast with his daily employment. A few will find recreation even in severer studies, and will resort to it by a natural instinct; but we speak of the many who are use i to be led rather than the few who can guide themselves. And, for the many, nar rative, sometimes historical, but more frequently imaginative, holds out greater attractions than all the publications of the Useful Knowledge Society, or than all the excellent manuals of more recent date of mathematics, chemistry, or natural history."

The paper from which this is taken is a large and popular journal, and it is doing a great injury to the public by such false instruction. It is a tissue of unfounded, and as such, uncalled for assertion from beginning to end. The tendency of mechanical employments is not alone to the exercise of the understanding. Granted that there are many occupations that require little of understanding or fancy, or anything else but elbow-grease (sawing wood for instance, which is a mechanical employ ment), we assert that there are no employments except the fine arts and authorship in which fancy has greater scope, and none whatever that call into more active play all the mental faculties than mechanical occupations. They do not leave the intellect unfed any more than other work, and in they did, we fail to see why imaginative literature is the proper food for famished minds. Let us go down to the very root of this matter. All the useful arts are devoted to the supply of the wants of man The first of these is air; that nature supplies. The second is food. Agriculture is then the first and most essential of have had several inquiries about this matter. all occupations, and as such it employs the largest number of individuals. Is there no scope tor fancy and feeling here? Is all appreciation of the beauty of fruits and flowers, and billowy on a velocipede.

already in progress. The braiding machines are peculiar in meadows, and ripening grain, confined to poets, painters, and novelists? What say you, country lads and lasses?

After food, clothing. Is there no room for play of fancy here? From whence have originated the beautiful textures, the designs for jewelry, the general taste which pervades the civilized world for refinements of dress?

But perhaps we shall find the field narrowed when we come to dwellings? No. Architecture attained, long ago, the dignity of a fine art.

How is it about those who make the machines, the implements by the use of which mankind are fed, and clothed, and housed? Here we are on our own ground, and we know of what we speak. First, the motors. A steam engine, or a turbine wheel. Did ever Raphael paint, or Grecian sculptor carve a form of greater beauty than a first class steam engine ? Talk of the poetry of motion. The motion of the steam engine, and its influence upon the progress of civilization, is a grander epic than ever yet was written. We grant you that a turbine wheel has more mathematics in its compact framework than artistic taste, yet even in this triumph of hydraulic science, we may find curves upon which the eye can pleas urably linger. Pass from the motors to the lathes, the planes, the spinning jennies, the looms, the steam fire-engines; the carriages, railway cars, steamboats, and all the other paraphernalia of civilized life, and then say if you will that fancy is excluded from the mechanic arts. Every artizan is insulted by such a statement, and still further insulted by the statement that his mind can digest only the light and trashy im aginative literature which forms the staple of the paper that thus puffs its wares.

We do not believe in the entire exclusion of all the lighter kinds of literature; but we denounce such willingness to pander to a depraved taste as is manifested in the quotation we have cited. The silly love stories or the wonder-exciting tales of bloodshed, and crime, and narrow escape, with a spice of ghost stories thrown in for a relish, which abounds in many publications,-the most vapid, most diluted broth of literature is something we protest against as mental pabulum for any class of people whatever, especially for those young and intelligent mechanics and apprentices who weekly read the SCIENTIFIC AMERICAN.

WEATHER PROPHESYING.

That science will yet ascertain a way of foretelling storms, we firmly believe. Indeed, the telegraph is even now useful ly employed for this purpose, and its agency, we hope, will a some not distant date serve to warn our coast dwellers and coastwise crafts of an approaching storm in time to enable the one to pre are to assist the other. Since the publication of Prof. Espy's Theory of Storms, much attention has been devoted to this subject, and although a system which is entirely reliable and generally applicable, has not yet been perfected, it is to be hoped that the progress of scientific investigation will yet evolve such a system.

The weather propherying, however, of experts, who calculate by the phases of the moon, by the comparison of one season with another, by cycles of storms, by the variations of the barometer, and the fluctuations of the thermometer, we deem of no value whatever Nothing has ever yet been adduced to prove that the moon has any appreciable influence over the climate of this planet, or the temporary changes in he climate of localities The comparison of former years with the present afford no criterion. The changes on the surface of the inhabited earth, by the destruction of forests and the multiplication of civilized habitations have much to do with alterations of climate. The theories of storm cycles are yet in embryo. Sudden fluctuations from causes beyond our knowledge are not taken into account by storm theorists; or if so, these fluctuations upset all their calculations, and they are left in the dark. The variations, neither of the barometer or the thermometer, are to be confided in. They ere unreliable.

The astronomer, who from the top of his tower, or rom a mountain summit; or the sailor, who has a more exlended field of vision, may, from the appearance of the clouds and the condition of the atmosphere, prognosticate the advent of a storm and its direction. So, also t he farmer and the hunter, by long experience, necessitated by their pursuits. learn to read the heavens, or, rather, the atmosphere, to some penefit; but when our weather prophets presume to foretell a dry summer,a lean harvest, a cold winter, from their yearly observations, based only on observation, and not on a thorough knowledge of natural laws, we choose to place but little reliance on their prognostications.

----Hardening the Mondboard of Plows.

OFFICIAL REPORT OF Patents and Claims

Issued by the United States Patent Office.

FOR THE WEEK ENDING OCTOBER 13, 1868.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of tees; -

On anng each Caveat	\$ 10
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In addition to which there are some small revenue-stamp taxes. Resider	nt s
of Canada and Nova Scotia pay \$500 on application.	

cor Pamphlets containing the Patent Lans and full particulars of the mode of apply ng for Letters Patent, spec fy ng size of model required, and much mation useful to Inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American. New York.

82 913.—EEL POT.—George D. Allen, New York city. I claim the eel pot funnel, of india rubber, and perforated substantially as above set forth. Also, the eel not funnel, formed of india rubber, with a contracted mouth, substantially as hef ore set for: h.

Also, the eet not funnel, formed of india rubber, with a contracted mouth, substantially as before set for it. Also, the combinistion of the eel pot funnel, with needles pointing toward its neck, substantially as before set forth. Also, the eel pot funnel, having the twocharacteristics of perforation and a contracted mouth substantially as before set forth. Also, the combination of the body of the trap with a funnel of india rub-ber, substantially as before set forth. 8,914. —ALKALI CAN.—Christian Barry, Philadelphia, Pa. 1 claim an alkal, can, in which clay is used for producing a tight joint, sub-stantially in the manner described. 90.015. — (Uspr., Christian Chair Burgrupe, Ohio,

Stanti-liv in the manner described. 82,915. — CURN HUSKING PIN.— Elias Blair, Bucyrus, Ohio. 1 caim an instrument for busking corn, constructed substantially in the manner shown and described. 82 916.— I'EN RACK.— Charles J. Bouche, Louisville, Ky. 1c1 in a pen rack, Composed of the sides. A B C D, coance ed by hinge joints, as shown, the binged root, H 1, brace, F, and racks, M. all constructed and arranged substantially as described, and provided with calendars, O P Q, and lips. S, for the reception of cards, substan ¹³ Uy as set fortb. 82.917.— CENTERING SQUARE.—George W. Brooks, Clinton, Mase.

Mass. I claim, in combination with the square, the adjustable slotted bar, b, when constructed as and for the purpose substantially as described. 82,918. — Co KN PLANTER. — John A. Burchard, Beloit, Wis.

1 claim, ist, Broadly, the employment of the dropping divide. Dwhen constructed and arranged substantially as herein described and set for h, and usen for the purpose of enabling (ne operator to Know by ocular demonstratuments) and methods with device b, the paw, K, and stop latcness, g and l, when used for the purpose bereins t forth.

82 919.-HOLLOW WINDOW CROSS BAR OF SHEET IRON.-T

82 919.—HoLLOW WINDOW CROSS BAR OF SHEET IRON.—T A. Cambensy, Chicago, Ill. I claim, as a rew article of manufacture, the hollow sheet metal window oars, const ucted substantially as shown and described. 82 920.—BLIND HINGE.—Charles B Clark, Buffalo, N. Y. I claim forming the "Vindrical ointle, a, with the depress d slot. b, and the circular eye c, with outside cascit, d, the whole com ined and arranged as nearched, and one acust in the manner and for the purposespecified, 82.921.—METALLIC COUNTER BRACE.—John L. Cooper, Pres-ton, Conn., as ignor to bimself and Joshua E. Fellows. I claim the new article of ma ulacture of a sour socker, in combination with a C-uniter brace, when made and applied substantially as herein de-scribed. 83.442.—OX YORE.—William Cooper, During T

scribed. 82 922.—OX YOKE.—William Cooper. Paris. Me. 1 claim the sudiog slottedplate, a, beld by snaples, b b', and adjusting nuts, c c', and carrying the shaft ring, i, as and for the purpose set forth, 82 923.—HARR')W. -Alu'rew J. Craig, Ashmore Station. Ill. 1 claim the b at teeth, A A, pivot d together as described, so as to form a har, with flexible sides, substantially as and for the purposes herein set forth. forth

hari w with Dexides substantiany as and for the purposes herein set forth. 82,924 — WASHING MACHINE.—C. H. Cramer, Rutland, N Y. I clam the combination of the argustable frame, B, and the treadle, I for raising the same and the survey, H, hor regulating its pressure, substantially in the manner and for the our use dearthed. 82,925. — HYDROCABBON BURNER,—Sutton Edward Crow, Straford, England. Patented in England, June 14, 1567. I claim the arranging the apparatus in such manner that a jet or jets of steam, under pressure, or, it may oe of air, issues into the turnace in a direc-tion parallel, or nearly parallel, o a pipe or passase by which combustiole inquit is led into the turnace, substantially as described. 82,925. — MORTENIG MACHINE. — Franklin A. Deland, and Luke Phillips, Memphis, Mich.

the mouto of stand pipe of "assage, substantially as described. 82, 92 i - MORTISING MACHINE. — Franklin A. Deland, and Luke Phillips, Memphis, Mich. We drain, it, the commination of the vertical guide, C', bed, C, slotted lever, D', and pin, E', substantially as and for the purposes herein set forth. 21, The independent p-forate guide plate, C, in combination with the jaw guide, N, and vertical or r. E, when constructed, atranged, and operat-ing, substantially as and for the purpose herein set forth. 22, PC - ATTACHING ROEETTES 'TO HARNESS. — William L, B2,927. — ATTACHING ROEETTES 'TO HARNESS. — William L, B2,929. — ATTACHING ROEETTES 'TO HARNESS. — William L, B2,928. — ATTACHING ROEETTES 'TO HARNESS. — William L, B2,928. — PARACHING NOEETTES 'TO HARNESS. — William L, B2,928. — PARACHING NOEETTES 'TO HARNESS. — William L, B2,928. — PARACHING NOEETTES 'TO HARNESS. — William L, B2,929. APPARATUS 'S 'D'B2. — Charles H. De Vine, Buffalo, N. Y., assignor to De Vine Bro'bers. I claim the curved or Mge, A, composed of veneers, as a, and b, having the iv ry or equivalent top plate, F, attached, as her in described. 82,929. APPARATUS FOR S'"TING AXLES TO WAGONS.— David Ducharne, Mechances Vile, N.Y. 1 claim 1st, The hook of jack, B C, and the upright fulcra or studs, E and E', no combination with the borizontal cross bar, F, each Devide constnucted 't oppert d substantially in the manner and for the purposes berein de-cribed and set torth. 21, 1, the triangular "Anaped suide, H, in combination with the jack, B, studs, f' and the shards, F, and but the bards of the purposes berein de-erribed and set torth. 21, 1, the triangular "Anaped suide, H, in combination with the jack, B, studs, f' and the purposes berein de-erribed and set torth. 21, 1, e triangular "Anaped suide, H, in combination with the jack, B, and the purposes berein de-erribed and set torth.

or ibed and set forth. 21, (),e triangular shaped guide, fl, incombination with the jack, B, studs, and E', and cross bar, F, an becattally in the manner and for the purposes erem described and set forth. 82,930. MOUNTING SPECTACLE AND EVE-GLASSES.-Charles

N. Dunham, Philadelphia, Pa I craim the glasses, A A having the pieces, B B, D D, cemented to them, as a new article of manufacture. 82,931. — CORE BAR FOR CASTING PIPES.— John Enright

(as-ten or to humselt, William Wall, and Thomas Enright). Louisville Ky, I claim the collapsable metallic core rod or cylinder, having tour longitu-linal segments, A, so constructed and arranged as to be operated independ-inity of each other, as herein shown and described. 32,932.—STUMP EXTRACTOR — R. B. Ferris, Holland, Mich.

ently of each other, as herein shown and described. 82,932.—STUMP EXTRACTOR — R. B. Ferris, Holland, Mich. We claim the combination of the lever, Habeave, F, chain, I, rope, J, sheave blocks. 3 and 4, sulls, A, p. st, B, the of this, standards 0, pulley. Each of the stranged, and operating substantially as de-scribed and for the purposes set forth.

82 933. - ADJUSTABLE SQUAKE AND BEVEL.-E. B. Foster, and John G. Witt, Elmira, N Y.

A new method has been discovered for the manufacture of he moldboard of plows, which gives them all the hardness and temper of steel, in combination with the toughness of iron. The moldboard (good iron) is heated and dipped into molten iron. It remains there ten seconds, when the two surfaces become heated to a white heat, while the center is not heated through. It is then immediately dipped into water; the surfaces come out harder than the highest tempered steel, while the interior is still iron and retains all the toughness and strength of the iron. The advantages claimed or this invention is that the plows made by this process will ake the finest and hard st polish, while they will be tough nough to endure any reasonable knocking about in stony soils.

We find the above in one of our exchanges. What is the new method? and where are such plows manufactured? We

A MAN in England recently made fifteen miles in one hour

Gotool. It Along I and the interaction of the pawl arranged substan-ially as shown and described, the loose collar or disk, h baylong an inclined slot, mowhich the pawl pin projects, rotation of the pawl pi are in one direc-tion for diog the pawl up into engagement with the rato het teeth, and its ro-tation in the opposite encetion carrying it out of engagement therewith; and shown in combination with theratchet wheel and pawl and the loose collar, the stud, l, and adjustable screw or pin, n, operating substantially as shown and described. describ 82,936.—STEAM ENGINE PISTON VALVE.—Richard Gornall. Baltimore, Md. I claim, ist, The combination of the main valve, C. with the interior sliding alve, D, having it e flarges, e e, substantially as and for the purposesspeci-Add. D. Having the half est, e.g., debaarding as and to the perpension of t The combination of the chaus, E, bars, F, guard bars, B, shield, H, and , C, all operating substantially as set forth an 1 shown. 82,938.-CrLTIVATOR PLOW.-B. F. Guy and J. V. Guy, Ma-

comb. Mich. We claim, 1st, In combination with plows thus hung in a frame, the spring ars and contecting chains or corte, as and for the purpose set for h. 2d, in combination with the plows, then infurcated rods, and spring bars, he shoes, e, substantially as and for the purposees forth.

Sd. In combination with spring bars, and plows of described cultivator, the rack, i, with its handle, i, as and for the purpose described. 4th, The cultivator plow when constructed of the several parts, all arranged to operate substantially as and for the purposes set forth. S2.939.—BUTTER I UB — Earl Guyer, Wolcott, Vt. I claim the combination of the builer tub, A, cover, B, keys, C C, cross bar D, and bent metal bars, E E, or their equivalents, substantially as andfor the purposes herein setforth.

284

poses herein setforth 82,940.—Anchor.—J. W. Habberley, South Malden, Mass.

52,540.—ANCHOK.—J. W. HADDELEY, South Datact, Mass. I claim an anchor when constructed of the shank. A, of wrought iron, in-seried into the cast, hub, B, which latter is provided with sockets for the re-ception of the square inner ends of the flukes, D, which are secured by pins or keys, substantially as described. 82,941.—DEVICE FOR CHANGING THE SPEED OF MACHINERY. The C Harverse Boston Mass assigned to himself Wm B Charlton

-Tho. C. Hargrave, Boston, Mass., assignor to himself, Wm. B. Charlton, and H. K. Mo ore. auu n. k. moor. I claim the pulleys, B C, secured to independentshafts, d L, revolving one within the other, and connected by means of gears, 1 K and g M, to the driv-ing shaft of the inachine, the pulley, A, and belt shipper, E, by means of which the rate of speed may be expeditionally changed, the whole combined and arranged ambatantially as described.

82,942.—COMBINED HARROW AND CULTIVATOR.—David M.

Harkrader, Chill, fll. I claim, 1st, The knives or cutters, Q Q, combined with the frame pieces, B C D and E, and the shovels, P P, teeth, Q Q, handles, K K, cross pieces, R R, bows, S S'', and hitchiug device, T T U; constructed and arranged as de-scribed and for the purpose set forth. 2d. The combination of the frame, A F, substantially as described, with the frame, B C D and E, constructed and arranged as described and for the pur-pose set forth.

proce set forth.
82.943. -SAW HANDLE.-Wm. T. Harvey, Jr. (assignor to himself and Peter Grimes), Philadelphia, Pa.
I claim the combination of the handle, A, metallic plate, M', with lug, L, for fitting into the notch, N, plates, M M, pln, P, confined by screws, S S, for retaining a saw black, the whole constructed to operate in the manner and for the purpose set forth and described.

82.944.--ELASTIC GORING FOR BOOTS AND SHOES.-John

12,944.—ELASTIC COMBINE FOR BOOKS AND SHOLL. CC__ Haskin, Boston, Mass. I claim as a new article of manufacture a goring for boots and shoes, made of periorsted rubber sheets, with stays, B B, saturated with an elastic var-ing as and for the purposes described and specified. 22,945.—HEATING STOVE AND FIRE PLACE.—A. J. Haswell, Charlengia Otto, Astedgeto Oct 5, 1863. 82.945

OZ, 940. — HEATING STOVE AND FIKE FLACE.—A. J. HASWEII, Circleville, Ohio. Antedated Oct. 6, 1868. I chuma, let, The division plate, b, applied in connection with the stove, A, in the rear of the fire plate, a, to produce the passages, h and i, in the man-ner and for the purpose explained. 2d, The division plate, b, provided with the tubes, b' b", and the orifices, d, agnotestically as described.

82.946. -BOOT AND SHOE BOTTOMING .- Cyrus Hay, Stone

ham, m a shoe set forth.

82.947.—CHURN DASHER.—Martin Heliker and Orsamus A

ite (assignors to themselves and J. W. Bostwick). Norwalk, Ohio, claim the concentric circles or colls of wire, C, as arranged in combi with the radial argins, B, for the purpose specified. We claim -Hot AIR FURNACE.-John I. Hess, Philadelphia, Pa 82.948.

32,948.—HoT AIR FURNACE.—John I. Hess, Philadelphia, Pa. Antedated Sept. 26,1863.
I claum, ist, The combination and arrangement of bed plate, B P, fire chamber, F G, heating drums, H D and H D, and C D and C D, with their spirals. connecting pipes, P iP2PSP47576 and P7, turn table composed of parts L P and T P, water box, W B, for the purpose specified.
32,949.—COMPARTMENT CANE.—L, C. Heylin, Philadelphia, Pa. Comparison of the service of t

82,949.—COMPARTMENT CARE.—I.C.IteyInit Interconfinet in Iclaim a cane arranged as herein described, wirerby one portion thereof is adapted to be used as a ripe, the handle of which is contained in a com-partment formed in the same and other portions of the body of the cane be-ing provided with receptacles for cigars, tobacco, and matches, the whole constructed as herein described. 82,950.—POTATO WASHER.—D. K. Hickok, Morrisville, Vt.

82,950.—POTATO WASHER.—D. K. Hickok, Morrisville, Vt. Antedated Sept. 30, 1668,
I claim the arrangement of the arm, D, and shaft, C, with the vessel, B, when provided with a lid and feet and perforations, as described, the several parts being constructed and used as and for the purpose berein set forth.
82,951.—LAST.—Benjamin Hitchings, Lynn, Mass.
I claim attaching the block of a last to the body of the same by means of a continuous avertailed-formed bead, C'D', said bead being curved longitudinally, forming an arc of a circle, which its into corresponding dovetailed for one purpose set forth.
82,952.—Nx ave. — Horace B Hooker Rochester N Y App.

82.952

32,952.—SKATE.—Horace B. Hooker, Rochester, N. Y. An-tedated oct. 6, 1658. I chim, ist, A skite having a heel plate, H, with its flange, q, and spurs, d, n combination with the bail, D, and cam, v, all acting conjointly, as and for 2d. The through the lot accent The tripod heel plate support, composed of the posts, F, as herein de-

Scribed. Scribed. 3d, The adjustable toe plate,B,In combination with the self-adjusting clami d, as and for the purposes shown.

62, 953. — SKATE. — H. B. Hooker, Rochester, N. Y. Antedated

52,900.— DEALAS. Sept. 23, 1868. I claim a skate having a heel plate, D, with its fisnce, a, and spurs, b, in combination with the adjustable clamp, G, and jam nut, C, all acting conjointly, as herein shown and for the purpose set forth. 82,954.—GIG SADDLE.—John Hughes, Newark, N. J. Ante

dated Oct. 8, 1868. I claim, 1st, The seat, A, with the recesses, B and R, the piece, C, and back

plece, E. 2d, The crupper loop, F, arranged with the recess, and plece of leather, I. 3d, The plate, L, with the plas, M, or their equivalents, in combination with

the frame, G. #th, The construction of the jockey, P. by incasing the extra plate, L, and fitting the upper end of the jockey to the shape of the seat, A, substantially as and for the purpose specified. 5 b, The whole in combination substantially as and for the purposes speci-

fied. 82,955.—FOLDING CAMP STOOL.—James Ingram, Troy, N.Y I claim the arms, D D', legs, E E', hinged to the center piece, A, and the springs, F F', each and sll being constructed, arranged, combined, and oper ated as a whole, in the manner and for the purposes substantially as herein described and set forth. 82,956.—EXPANSIVE BIT FOR WOOD BORING.—W. A. Ives

82,956. — EXPANSIVE BIT FOR WOOD BORING. — W. A. IVES, New Haven, Conn.
1 claim the mode of holding in place the adjustable cutter, C, by its upper edge, by means of the groove, B. the wedging screw, a, and slot, b, in the cut-ter, C, and set screw, d, constructed and arranged substantially in the man-ner as above specified.
Also, the substable cutter, when constructed in such a manner as that all the wood is removed without the necessity of the ordinary fixed central cut-ters upon the stock, substantially as set iorth.
82,957.—HoLLOW AUGER.—W. A. Ives, New Haven, Conn. I claim the combination of the circular stock, A, slot. H, and screw, E, and two movable jaws or knife holders, C C, constructed and operated substan-tially for the purposes and manner as above specified.
90 058 EFroure Durgungsep Daniel J. Johnson York-

82.958 -FLOUR DISPENSER. — Daniel L. Johnson, York

ville, Mach. I claim the construction and arrangement of the hopper, A, tube, B, and vertically adjustable spindle, D, baving disk, F, and wing, w, a the ched there to, with the casing, C, and guard, L, all combined and operated substantially in the manner and to the purposes set forth. 82,959 — PLOW. — G. W. Keeler, New Haven, Ohio.

N. J. assignor to Frank K. Hipple, Philadelphia, Pa. Antedated Uct 8, 1868.

..

City, Pa. I claim the grate bars having a broad upper face with sidestapering down-ward, when made hollow, for the passage of water through them, substan-tially as and for the purpose hereinbetore described. 82,966.—CAR COUPLING.—S. Madden, Eureka South, Cal.

I claim the above described combination and arrangement of devices to form an automatic car coupling, consisting of the silding bumper. E, with the slots, G and G, opening, J, and spring, F, the pin, I, with collars, H and H' and the guiding plate, K, with or without the rollers, D, at the end of the link, adbatanially as specified.

-WATER LEVEL DETECTOR FOR BOILERS.-John Mas-82.967. lin and David Hirdsall, Jerser City, N. J. I claim the combination with the stem or plug, D, ot the cam, K, disk, L, the valve, d. of the whistle with its stem and the spring, f, as described. 82,968.—BUOYANT PROPELLER.—Elisha Matteson, Brook-

82,968.—BUOYANT PROPELLER.—Elisita matteson, Lister lyn, N.Y. I claim the cylinder, A, air tight and provided with independent air tight V-shaped buckets, C, arranged on the exterior of said cylinder, and within a suitable frame, B, to operate substantially as set forth. 82,969.—(AGE.—Lafaycthe H. Mayott, Springfield, Mass. I claim the construction and arrangement of the graduated beam, A, hav-ing a thread cut thereon, in combination with the sliding arm, B, and nut, C, engaging there with, set serve and stationary arm, the whole constituting an adjustable side rage, substantially as described. 82,970.—SAW MILL.—Alex. McCreight, Tranquility, Ohio.

52,970.—SAW MILL.—AIEX. MCCTEIGHT, ITALQUILITY, OHD. I claim, lat, The ratchet bars, g g, ratchet wheels, h h, and bar, K, when combined with the fixed frame, b b b' b', moving frame, d d d' d', and opera-ted substantially as described. 24, The shaft, C, of the described mill, in combination with the shaft, H and H', with their connecting bands with roller, M, all as and for the ob-jects described. 82,971.—MACHINE FOR CUTTING SOAP.—Peter B. McKelvey, Albary N, Y

Becka described.
B2,971.—MACHINE FOR CUTTING SOAP.—Peter B. McKelvey, Albany, N.Y.
I claim, ist, The carriage, I, constructed and operated substantially as bereinhetore specified and set forth.
20. The solid carriage, when combined with stationary wires. In the manner and for the purposes above described and set forth.
3d, The commination of the stationary wires with the notched plates, B and C, the screws, G, and nut, F, substantially in the manner and for the purposes hereinhefore specified and set forth.
32,972.—HORSE RAKE.—G. M. L. McMillen, Dayton, Ohio.
I claim, 1st, The adjustable fasteningfor the rake teeth, consisting essen-tially of the luge, D and G, and screw boit and nut, H, the luge being con-structed with the finances and arms as described, and the whole operating to rether in the manner and for the purpose set forth.
2d, The guide standards, J, when constructed with the head, j, and the and nut. or any equivalent device, and operating in connection with the spring, K, and the rake teets, substantially as described.
23,973.—BOLT HEAD.—Franklin S. Miles, Philadelphia, Pa.
I claim, as a new article of manufacture, a bolt head, constructed as above described.
24,974.—Low WATER INDICATOR.—William Moore. Koko-

82,974.-Low WATER INDICATOR.-William Moore, Koko

'mo, Ind. I claim the combination and arrangement of the chamber, A. index level ind scale, with the water regulator, all for the purposes and substantially as even described and set forth.

berein described and set forth. 82,975.—MATTRESS.—Albert G. Morey, Chicago, Ill. Ante-dated September 30, 168. I claim, let, A mattress or cushion composed of alternate layers of elastic spouge and some semi-elastic material, substantially in the manner and for the purpose set forth. 2d. Supporting one or more layers of elastic sponge with some less elastic substance in the construction of mattresses or cushions, substantially in the manner and for the purposes (escribed. 82,976.—COFFEE AND TEA STEAMER.—Charles G. Murch, Chicago III.

Chicago, Ill.
 Iclaim, in a coffee or tea apparatus, the inner vessels, A A G, with the stop cocks and the upper vessels, B , pipes, E, and strainer. C, the whole combined and arranged substantially as and for the purposes shown.
 82,977.—RAILWAY FROG.—William H. Nobles, St. Paul, Minn.

Antedated October 10, 1863. I claim a railway frog, when constructed with the rails, B B, with their figance grooves and facings, C C, all arranged as described and for the pur-poses set forth.

poses set forth. 82,978.—CAR WHEEL.—William H. Nobles, St. Paul, Minn.

82,978.—CAR WHEEL.—William H. Nobles, St. Paul, Minn. Antedated October 10. 1868. I claim the construction of the wheel, A, with two flanges, B B, and three treade, C C G, as shown and described, and for the purposes set forth. 28,979.—HORSE HAY FORK.—J. K. O'Neil, Kingston, N. Y. I claim the two levers, A B, with their beaks, a b, and spring detent, c, con-nected and operating in combination with the prongs, G G, of the fork, sno-stantially as and for the purpose herein specified. 28,980.—BLIND SHUTTER FASTENING.—Oscar Paddock, Wa-terrown N.Y.

56,500.—DLIND SHUTTER FASTENING.—OSCAT FAULUCK, Wa-tertown, N.Y. I claim, lst, A device for opening or closing and fastening bind sites, com-posed of the herein described toothed segment, and endless s rew for opera-ting the same, the said parts being applied to the blind sists or shutter or blind frame, respectively, and ombined for operation in the manner shown and described.

and described. 2d, The combination with the hollow plunger, or sliding rod and set screw. or equivalent device, upon the same, of an auxiliary adjustable rod, support ed in said plunger, and provided with a follower, for engaging with the blind slat fastener, substantially as described, for the purposes shown and

specified. 82,981.—VOLTAIC BATTERY.—Henry Palmer, Evanston, Ill. 1 claim the combination of the plates, B, and the positive and negative ele-ments when arranged to operate in the manner and for the purposes specified.

for the purpose described.
83.002.—HORSE RARE.—John B. Smith, Newton, assignor to himself, J. B. Stevens, and U. G. Stevens, Jasper county, Ill.
I claim the levers, D. D. in connection with the slides, f, and clutches, Dx. oblique arms, h. at the front ends of the levers, the crank ends, i, of shat, Ex, and the projections on the slides, f, and thills, all arranged to operate in the manner substantially as and for the purpose specified.
83.003.—DUMPING WAGON.—George R. Sneath and C. H. Sneath, wilmington, Del.
We claim, ist, The combination, in a dumping wagon, ot the box, A, hung on transmistant shaft, v, and this exclusion, and the def frame timbers, h, cross bar, t, bent arise tree, s, sli on transmistant shaft, v, and hing ed bolts, v v, arranged to operate as herein described.
24, The crank shaft, v, and hing ed bolts, v v, arranged to operate as herein described.
36, The bed frame of a dumping wagon, when composed of the parts, h h, till, u. and j, arranged as berein described.
38,004.—Toy PistoL.—Greenleaf Stackpole, New York city. I claim apletol or gun, having the spring trigger, E, and slot, A, in combination with the rubber band, B, and plunger, F, when the parts are constructed and operate as therein described. ments when arranged to operate in the manner and for the purposes specified, 82,982.—APPARATUS FOR DYEING HAIR.—William Patton, Sprine field, Mass. I claim, in combination with a comb, H, or other suitable device for apply-ing them to the hair, beard, or moustache, simultaneously, for the purpose of coloring either, alternate coats of nitrate of sliver and galife acid, con-veyed and attached to such comb, or other device, by means of suitable ve-hicle, such as gum-arabic, gum-tragicum, caoutchouc, substantially in the manner herein described. The combination of the nitrate of sliver with the gum-arabic, or other suitable gelatinous vehicle for the purpose, prepared and applied substan-tially in the manner described.

arangement of the comb, H, with two rows of opposite teeth, one prepared with nitrate of silver and the other with gallic acid, in the er described.

The ari ow prep 82,983.-MANUFACTURE OF GLASSWARE.-John P. Pears

Birningham, Pa. I chaim a mold for making footed or footed and stemmed glassware, whereof that part in which the body, stem, and foot are formed is in a single piece, without part or division, in combination with the bottom plate having a projecting core, substantially as and for the purpose described. 82.984.—MERIDIAN TIME INDICATOR.—Edward Prevear, Leo-

minster, Mass. I claim the meridian arm, g, fitted to swing, in combination with the lens 1, and inder, k, substantially as specified. 82,985.—CLAMP.—Elijah K, Purdy, Schoolcraft, Mich.

oo, UU (. — HAY ELEVATOR. — Nelson C. Thomas and Jacob H. Cobe, Brighton, Mich. Wechaim the converger, H, when constructed as described, traveling on therope, D, provided with stop, F. having pivoted in it the lever, N, and operating in combination with the ropes, S and J, screw holts, A. with hand nuts, E, and blocks, G G, all arranged and operating substantially as described. Best need. 83,008.—School DEeK AND MUSICAL INSTRUMENT.—W. O. Trowbridge, Newton Corner, assignor to "Mason and Hamilto Organ Company." Boston Mass. I claim, in combination with a desk a keyed musical instrument, so ar-ranged that its keys may be concealed from view, or may be brought into position for playing substantially as set forta. I claim, let, The floor claimp, consisting of the claimps, A, hinged together at B, and provided with promes, C, the curved lever, D, and slotted lever, E, with boles, F, all constructed and arranged substantially as and for the purpose set for the

urposes set forth. 24, in combination with the above, the brace, A, provided at its lower end 7th a scarp serrated edge and hole, I substantially as and for the purpose escribed.

82,986.—CLAMP FOR SADDLERS, ETC.—William K. Rairigh

Rural Valley, Penn. I claim the shart, B, with its ratchet, D, the chamber, C, pawi, e, and pring, g, when arranged upon and made to operate the jaws of a clamp ubstantially as and for the purposes specified.

83,010.—BRICK MACHINE.—Peter Walrath and Jesse Wal-rath, Chittenango, N. Y. We claim the grind mill and crowding devices, a b c, endless chain of molds, D D, with movable bottoms, d, delivering wheel, L m, press, I H, with the intermittent operating devices, F 20 GR, and ratchet, e, with throwing de-vices, F 1G, all constructed and operating as herein described for the pur-voces set forth. 82,987.—HARVESTER.—Amos Rank and Joshua H. Cox salem, Ohio.__

Solor.—Intervention, and the stand and a solution in the standard standard

ose set forth. 83,011.—ANIMAL TRAP.—A. L. Waring, Coshocton, Ohio. I claim the described trap, consisting of the box, A, having the hinged co

83.007.-

82,965.-GRATE BAR.-William S. Mackintosh, Allegheny 82,991.-HARVESTER RAKE.-Thaddeus S. Reeve and Chas.

OCTOBER 28, 1868.

82,991.—HARVESTER RAKE.—Thaddeus S. Reeve and Chas. D. Smith (assignor to themselves and Wm. Schwartz), Chicago, Ill. We claim, ist, The adjustable plate, C, in combination with the standard, D, sleeve, J, and lever, H, for supporting the reel, avfully set forth and shown.
2d, The boxed sleve, J, oscillating on the standard, D, in combination with the atjustable lever, H, or supporting the reel, avfully set forth and shown.
2d, The boxed sleve, J, oscillating on the standard, D, in combination with the atjustable lever, H, or supporting the reel, avfully set forth and shown.
3d, The siding section of the reel, M, slide. N, and lever, G, as fully set forth and shown.
82,992.—BABY JUMPER.—Charles Rich (assignor to Sarah A. Rich), Poughkepsie, N.Y.
I claim, ist, The rocking yoke, C, pivoted to the base, A, supporting the seat bar, D, and connected with the up and down adjustable spring. E, all made, arranged, and operating substantially asherein shown and described.
2d, The box, B, which carries the spring. E, when arranged in combination with the base, A, yoke, C, and seat bar, D, all made and operating substan-tially as herein shown and described.
3d. The bow shaped swinging railing, F, when attached to a standard, f, which is pivoted to the underside of the seat, and when fastened with its ends to the fixed horn, de, substantially as and for the purposeherein shown and described.
4th. The projecting lugs, h, and the pin, i, m combination with the swingfing ranged, ed. operating substantially as herein shown and described.
5th. A baby jumper, wonstating of the base, A, post, B, swinging Yoke, C, spring, E, seat bar. D. saddie, G, horn, d, e, and swinging rail, F, all made, arranged. and operating substantially as herein shown and described.
6th. The sidding foot rees, H, in combination with the wedge, J, and seat bar D, of a baby jumper, substantially as and for the purpose herein shown and described.
82,

82,993.-PUNCHING MACHINE.-W. T. Richards, Bridgeport,

I claim the arrangement, herein described, of the gage levers, k and l, slotted plate, H, lever, I, and the punch stock or gate, C, as and for the pur-

blocked block, and the second second

Safford, Hope, Me. I claim, 1st, The manner of hanging the pieces, DE, loosely in the top piece, 2d, Theyoke, L. 8d, The combine

2d, Theyoke, L. 3d, The combination of the link, T, the yoke, L, the pieces, D E, and the top piece, A, substantially as and for the purpose set forth. 82,996.—GRAPE TRELLIS.—Abisha Scofield, Starkey, N. Y. 1 claim, in combination, the post, A, socket, B, set screw, G, standard, C, arins, E F', and bars, D, arranged as and for the purpose set for the. Co. 990.—CHAPE TRELLIS.—ADDSDA SCORED, STAFKey, N. Y. I claim, in combination, the post, A socket, B, set screw, G, standard, C, arms, F F', and bars, D, arranged as and for the purpose set for th. 82,997.—TOMBLER WASHER.—M. SCRANAGE, Boston, Mass. I claim, Ist, The swivel, K H H H, on the stem, E, arranged and operating as descrabed, and for the purpose set forth. ^{2d}, Thé rose, D, when provided with tangentially discharging orlifces, d d', etc., operating in combination with the swivel, K H H H, arranged substan-tially as described, and for the purpose set forth. 82,908.—SWING.—George A. Soaver, Now Work site.

83,000.

taily as described, andfor the purpose set forth. 82,998,—Swing.—George A. Seaver, New York city. I claim the combination of the propelling rope or ropes with the movable handles or sliding sockets, substantially as described. 82,999.—WASHING MACHINE.—N. M. Shafer, New York city. I claim the method of squeezing the suds through the clothes, by means of unresisting wire boxes, B and L, or their equivalent, in combination with the pump, H, E, and, D, as herein described and set forth.

pump, H, E, and, D, as herein described and set forth. 53,000.—Horse KAKE.—Geo. C. Shaler, Gilboa, and Harry Barlow, Herbert, N. Y. We claim the platform, a, rigidly attached to therevolving axle, b, in which the curved teeth are fixed, and the platform, c, hung between the projections d d, of the axle tree, and carrying the clearers, e, as herein shown and de-scribed, whereby, as the driver steps from a to c, the latter is depressed, the axle partially turned, and the teeth and clearers operated as set forth and shown.

83,001.—Jacob J. Smith, Philadelphia, Pa. Antedated Octo-

ber 1, 1863. I claum, 186, An elastic bed bottom, consisting of a series of separate wood-en slats, B, arranged parallel with each other and with the side rails of the bedstead, and having a round knob, b', fixed near each end, in the middle of the width of the underside of each slat, B, and the said slats suspended by means of two single cords, C and C', which respectively pass in a strained or stretched manner from the knobs, b', of the slats to like knobs, a'', fixed in the bad and the foot ralls, A A', in the zigzagged orlaced manner shown and described, for the purpose specified. 2d, In combination with the mechanical devices claimed in the preceding four the winding apparatus, D, arranged to operate substantiality as and for the purpose described.

83,002.—HORSE RAKE.—John B. Smith, Newton, assignor

83,005.-WAGON AND CAR UNLOADER.-Noah Swickard,

ObjUUJ.— WAGON AND CAR UNLOADER.— Item United as a construction of the provided balance bars, B, board, C, end bars, II, and stops, H, all constructed ani operating substantially as and for the purposes berein set forth. 2d, The pivoted balance bars, B, provided with one or more self-acting dogs, G, in combination with the spring toggie keys, EE, and key, F, all constructed and operating substantially as and for the purposes herein set forth. 2d, the arrangement of the slotted platform, A, balance bars, B, B, and idd, D, to the hopper, substantially for the purposes set forth.

83,006.—RAILWAY CAR BUMPER.—Joseph Tanney and John H. Brown, Bangor, Me. We claim the rubber spring, D, when constructed as described, and insert-ed into the drawhead, C, substantially as and for the purposes herein set torth.

83,009.-WATER WHEEL.-Jesse Tucker and Abel B. Palmer, Adrian, Mich. We claim a water wheel, having threeseries of buckets, C d and e, con-structed as shown, and arranged in relation to each other, substantially as and for the purposes set iorth.

-HAY ELEVATOR.-Nelson C. Thomas and Jacob H.

band, crupper loop, and saddle hook pass, substantially as described and for	3d, The combination, substantially as set forth, of the reel shaft and its driving shaft, with tangentially toothed gearing, for the purpose specified.	ers, b b b, arranged as described, and diaphragm, B, with points, z z, arranged as described, the whole being combined as and for the purpose set
the purpose set forth. 2d, The affixing the burrs or nuts of the terrets to the back pad, and con-	82,988.—CLASP FOR TRUNKS, ETC.—Louis Ransom (assignor	forth.
veying it beneath the bridge, to receive the screw end of the terrets, substan- tially as described, and for the purpose set forth.	by mesne assignment, to Louis Ransom and Eugene Hyatt), Lansingburg,	83,012. — RECLINING CHAIR.— John W. Wetherbee, Charles-
82,962.—WRENCH.—E. J. Leyburn, Lexington, Va.	I claim a trunk clasp, consisting of the two parts, A and B, the clasp	town, assignor to himself and Richard Rowse. Chelsea, Mass. I claim, in combination with the stationary seat frame and stationary arms,
I claim, 1st, Tbe arrangement of the arms, EE, and jaws, FF, in relation	tongue, c, and spring, d, constructed, combined, and operating substantially as described.	the swinging back, e, and foot and leg frame, f, pivoted to the side frame
to the unbroken ratchet (which ratchet is capable of being turned through a complete circle), so that said jaws are adjustable for large and small nuts.	82,989.—GRAIN SEPARATOR.—P. N. Recker and Jos. Recker,	and jointed together by links, k, and moved from vertical to inclined or borizontal position, or vice versa (one frame by the other), substantially as
within the capacity of the wrench, without a corresponding enlargement of the ratchet wheel being necessary, substantially as described.	Dayton, Ohio.	described. Also, in combination with the adjustable back and foot piece and station
2d, The combination of the pivoted right-and-left pawl, a a, with the arms,	We claim, 1st. The triangular shaped horizontal bars, mm, and perpen- dicular bars, n n, coastructed as described, and forming a frame, to be cov-	ary seat, the links, k, the notches, m, and latch, n, arranged to operate sub
EE, and adjustable jaws, F F, substantially as and for the purpose de- icribed.	and mith mine - stain - for the number of account of main endetentially of	stantially as set forth.
3d. The jaw-holding portion, D1 E E, hub, D2, ratchet wheel, D, adjustable	and for the purposes herein set forth. 2d. The wire netting. N, when constructed in sections, or otherwise, of	83,013.—AUTOMATIC BOILER FEEDER.—John R. Widgeon and Fred. E. Frey. Bucyrue, Ohio. Antecated September 26, 1868.
aws, FF, bandle, A, and pawl, C, a a, all combined and arranged substan- lally as described.	square wire, and used substantially as and for the purposes herein set forth.	We claim the combination of the case. U, with the chamber, A having
32,963.—AGRICULTURAL LOCOMOTIVE WITH SPADING APPA-	3d, The arrangement of the valve, a, rod. b, slotted bar, c, and screw, d, for the purpose of regulating the discharge of grain out of a tube, substan-	ports, 1 m, and the seat, B, provided with holes, d e f g, substantially as here-
RATUS.—Conrad Locher, Oroville, Cal. I claim, 1st, The application of equalizing gears between the axles of a	tially as and for the purposes herein set forth. 4th, The arrangement of the chamber, D, with valve, e, and valve, g, cov-	83,014AUTOMATIC PUNCHING MACHINEJohn E. Wiggin,
vagon, so, in turning a curve, each wheel adopts the speed which the curve	ering the entrance to the chamber. G, constructed as described, and operat-	Stoneham, Mass. Antedated September 26, 1868.
earing, or their equivalent.	ingsubstantially as and for the purposes herein set forth. 5th, The arrangement of the hopper. H, passage, I, and valve, h, construct-	I claim, 1st, in combination with a punching device, an automatic inter- mittent moving feed, to which the material to be punched is affixed, substan-
2d. The gearing and connection through the bingholts. Sd. The spaders, so constructed that they enter the soil like a pick, (nearly	ed as described, and operating substantially as and for the purposes herein set forth.	tially as and for the purpose described.
vertical), cut off a slice like a spade, and turn it over like a plow.	6th, The arrangement of the passage, Q, chamber, R, with its valve, w, and	2d, Also, the combination of the coupling, i k, with the work feeding device through the piece x , the rocker, y , lever, il', latch pull, o, and spring,
4th, Turning the spaders in the same direction as the wagon, thereby assisting locomotion.	the valve, y, covering the entrance to the chamber, S, constructed as de- scribed, and operating substantially as and for the purposes herein set forth.	n, or their equivalents, substantially as described. Sd, Also, the combination of the brake, m, with the lever, i l', spring, n.
Sth, The combination of the whole, in the way and manner herein set orth.	7th, The arrangement of the chambers, C D G Q R and S, passage, I, and the hopper, H, carrying the different currents of air through the chamber,	and fixed part. K. of the coupling.
13.964.—Apparatus for Producing Reciprocating Mo-	E, and into the drum, F, substantially as and for the purposes herein set	4th, Also, the combination of a segmental rack with clamping jaws, sub- stanually as described.
TIONJ.J. P.Lyon, Ypsilanti, Mich.	forth.	5th, Also, the combination of the piece, h', with the pull, o, for throwing the pawl, w, out of gear with the rack.
I claim the wheel, A, support, B, lever, C, connecting rods, D, and counter- olse weight, F, when used in connection with pump rods, E, and weights, G,	82,990.—PLOW.—Francis Reese, Elyton, Ala.	6th, Also, the employment of a friction applying device arranged to oper-
	I claim the guide plate, and the combination of the scraper, hilling-plow, and other parts, as described.	ate on rack, t, to steady its movement, and to prevent it from moving beyond the distance intended, substantially as described.

October 28, 1868.]

83,015.-CHURN DASHER.-Samuel Yates, Marshall, Mo.

I claim the combination of the hollow or tabular shaft. A, with air cham-ber, B, valve, C, dasher, D, and air tubes, E, as constructed and arranged substantially in the manner and for the purpose described. 83,016.—STEAM GENERATOR.—V. D. Anderson, Milton, Wis. 83,016.-

I claim, ist, The arrangement of the parts, A and B, when constructed and oined together, substantivily as set forth.
 24, The arrangement of the boilers, A and B, and the reservoir of the superheater, Q, substantially as escribed.
 83,017. — GAITER BOOT. — W. H. H. Babbitt, New Corner,

Ind. I claim, 1st. In combination with a gatter, the plates, A and E, and the olding leather, D, arranged substantially as described, for the purpose set

forth. 2d,Thefiap, G, in combination with the plates, A and E, arranged and operating substantially as described, for the purposes set forth. 83,018.—DEVICE FOR UNLOADING HAY.—Joseph Backus,

83,018.—DEVICE FOR UNLOADING HAY.—Joseph Backus, Greenvale, III. I claim the derrick, A BC, in combination with the beam, D, chain. 4, and hooks, can dF, all made and operating substantially as herein shown and described, and for the purpose of unloading hay from wagons, as set for th. 83,019.—WIRE CLOTH.—Thomas Baggott, Baltimore, Md. I claim the production of wire cloth, constructed as herein described whether the ends of the webs are joined together ornot, as an article of man-nfacture.

83,020.—LEACH TUB.—Wm. Banzett, Brooklyn, N. Y.

I claim a leach tub, constructed as described, amely: with the cover, C, battened around its edges on top, and having the hinged portion, c, and held by the clamps, B, having beveled forward ends, said clamps being hinged to the ears, a, which are secured to the sides of the tub, all arranged ashere in shown for the purpose specified.

83,021.-Combined Hatchet, Hammer, and Scraper. Arthur Barbarin, New Orleans, La. I claim, as a new article of manufacture, a combined hammer, nail puller, atchet blade, and scraper, formet of one piece of metal, substantially as erein shown and described.

herein shown and described. 83,022.—Box OPENER.—Arthur Barbarin, New Orleans, La. I claim the herein-described tool for opening cigar boxes and other articles as a new article of manufacture. 83,023.—SHOEMAKERS' IMPLEMENT.—Arthur Barbarin, New

Orleans, La. Orleans, La. I claim as a new article of manufacture, a tool, the shank and handle of ich are combined with the hammer head, claws, and rotary cutting disk, th or without the screwdriver, in the manner and for the purposes set

83.024. -- LIQUID SAMPLER. - Arthur Barbarin, New Or-

1010...
83,024. — LIQUID SAMPLER. — Arthur Barbarin, New Orleans, La.
1 claim, 1st, The combination of the induction tube of a siphon with a discharge pipe provided with a throat for receiving said induction tube, a vacuum creating rubber bulb, and stop cock, d. "Jocate d, one on each side of said throat, with or without the reservoir, C, between them, substantially in he manner and ior the purposes shown and set forth.
24, The receiving chamber or reservoir, C, arranged between the induction end of the pipe and the rubber bulb, substantially in the manner here in shown and for the purpose described.
34, Providing the liquid-receiving chamber or reservoir of the siphon or liquid sampler with a sucharge tube and cock, as shown in fig. 4, of the accompanying drawings, by means of which the liquid in said chamber can be trawn off, substantially as and for the purposes specified.
45, A liquid sampler, consisting of a hollow rubber bulb, in combination with a tapering tube provided with a stop cock at or near the point where it is united with the said bulb, with or without a reservoir of glass or other suitable material interposed between the said stop cock and the open end of the said bulb, with or without a reservoir of glass or other suitable material interposed between the purposes here in shown and set forth.

fied. 83,025.—SOFA BEDSTEAD.—W. P. Barclay, Chicago, Ill. I claim, 1st, Constructing the back of a sofa so that the same forms a com-plete bed, substantially as specified. 24, The trame, C C D D', in combination with the seat and ends of the sofa, and forming the back thereof, and pivoted to the ends, so as to turn forward, substantially as and for the purposes specified. 34, The folding head and foot boards herein described, in combination with the frame, C C D D', and ends and seat of a sofa, substantially as and for the purposes specified.

Ath. The solution of the sola, substantially as and for the purposes specified. Ath. The supporter, f, in combination with the headboard herein described, and trame of the back of the sola, substantially as and for the purposes set forth. 5th. The iointed arm I. I construct the

. The jointed arm, IJ, constructed substantially as and for the purpose

5th, The jointed arm, I J, constructed substantially as and for the purposes specified. 6th, The pieces, C C', in combination with the end pieces, E, of a sofa, and slats, a, when so constructed as to form both the back of a sofa, and also a complete bed, substantially as described. 83,026.—GAs GENERATOR.—J. A. Bassett, Salem, Mass. I claim an apparatue for charging air with hydro carbon vapor, automati-cally revolved by the weight of the column of vapor, and used in combina-tion with the chamber, C, substantially as set form 83,027.—PUMP.—W. D. Baxter, New York city. I claim the pistons, e, and yoke pieces, p, actuated by the rollers, o, and lever, i, in combination with the pumpset d, and water way, f, provided with stuffling boxes for the piston rods, n, and a nir vessel, k, the parts being ar-ranged and constructed substantially as specified. 83,028.—PIPE-MOLDING MACHINE.—Benjamin S. Benson, Bal-timore, Md. I claim, in combination with a revolving flask, a non-revolving but rising and falling scree packer, which rests upon and rises with the sand packed in the flask, and is guided in its rising, substantially as a for the purpose set forth.

83,029.—Packer for Packing Sand in Molders' Flasks.-

60,023.—1 AOREM FOR TACHTAG BARD IN INCOMENT TRANSMIT B, S. Benson, Baltimore, Md. I claim the packing instrument, with a screw thread of gradually diminshing pitch from the first end, and a zinc or other soft meral or alloy of meal fillet under and around it, as and for the purpose herein described and repre-cented.

sented. Also, in combination with the screw thread and fillet, the sectional and removable steel plates, D and E, substantially as and for the purpose de-scribed.

83,030.—PLOW.—M. Berdan, Maumee City, Ohio. I claim the slotted bar, F, and screw rods. E and H, so arranged that the share, G, can be adjusted both vertically, laterally, and longitudinally, as specified.

83,031.—Compound for Insulating Telegraph and Elec-TRIC WIRES.-S. C. Bishop, New York city. I claim the msulating compound for telegraph and other electric wires or conductors, composed of the ingredients described, in, or about in, the pro-

portions specified. 83.032.—WAGON BRAKE.—S. R. Bolton, Prescott, Wis.

I caim. 1st, The brake shoe, e, constructed as described, with its rear face inclined downward, and sliding by the dovetalled edge, i, and bent plate, h upon the rollers, g, in the box, i, all arranged as described for the purpose

upon the rollers, g, in the vox, i, an arrange set of the set o

83,033.—Corn Husking Machine.—David Bookwalter, Gar-

dner, Ill. claim the combination of the rollers, A, provided with the grooves, a the teeth, B, and the shields or cleaners, C, all constructed and arranged shown and described. 83,034.—Folding Chair.—Asahel C. Bovd. Grafton. Mass.

55,054.— FOLDING CHAIR.—ASafiel C. BOyd, craiton, Mass. I claim the standards, A AB B, pivoted at a a, and provided with strength-ening rounds or cross bars, in combination with the pieces, H H, curved hinges. I I, or their equivalent and hinged connecting rods or plates, J J, when the several parts are constructed to operate in the manner and for the purposes above described. S3,035.—VELOCIPEDE.—Chas. K. Bradford, Lynnfield, Mass. John the Generation had brade at a planing to the during a before the several parts are bound as a planing to the during a before the several parts are bound as a planing to the during a before the several parts are bound as a planing to the during a before the several parts are bound as a planing to the during a before the several parts are bound as a planing to the during a before the several parts are bound as a several part of the several parts and the several parts are bound as a several part of the several parts and the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several parts are bound as a several part of the several part of the several part of the several parts are bound as a several part of the several part

I claim, ist, Connecting the body of a velocited to its arriving shaft, it such manner as to vary the position of such body, and its seat, with respec to such arriving shaft, in manner and for the purpose as hereinbefore ex

83,041.—HAMES FOR HARNESS.—D. Clemons, Scranton, Pa.

Scientific American.

30,041.—ITAMES FOR TARRESS.—D. Cleffinders, Scratton, r.a., I claim the lever, E, hook, F, and holding ring, G, in combination with the chain, D, and the lower endof the hames, A, substantially as shown and de-scribed, and for the purposes specified. 83,042.—CAR BRAKE.—Joseph Cockshoot, Jr., and Henry We claim the combination of the longitudinal bar or plate. 0. and its racks, the pinions on the axles, and the springs, m m, the whole being ar-ranged and applied to a railway car, substantially as and for the purpose herein set forth.

herein set forth. 83,043.—AIR SPRING.—Jackson Corriston, Sandusky City, O. I claim an air spring, constructed as herein described, and provided with the valve, f, in combination with the spring, A B, composed of metallic disks, substantially as and for the purpose set forth. 83,044.—WATER WHEEL.—Gardner Cox, of Pierpont, N. Y.

out of the source of the state of the state

described. 3d. The combination, with the same, of the sliding jaw, F, when fitted to operate in connection therewith, and provided with the nut, G, substantially as and for the purpose described. 3d, The arrangement of the cap, I, and screw, L, and stationary jaw, B, with the remaining vise, in the manner and for the purpose described. 83,046.—GATE.—Stephen S. Davis, Edgerton, W is. 1 claim the combination of the wires, a a, levers, F, F, and handles, G, G, or their equivalents, for the purpose of opening and closing the gates, C, 83,047.— Frepring Dorot tep FOR Curpout AP SAWS.— F. C.

substantially as herein set forth. 83,047. — FEEDINO ROLLER EOR CIRCULAR SAWS. — E. C.

Dicey, Montague, Mich. Dicey, Montague, Mich. I claim the feed roller for edging saws, provided with V-shaped grooves and projections at right angles to its a xis, for the purpose of preventing late-ral movement of the board while being fed to the saws, as herein shown and described.

83,048.-FISH BAIT CUTTER.-Valentine Doane, Jr., Har-

wich Port, Mass. I claim a mill for cutting ish bait, having cylinder, A, plates, f and h, and the zeres of knives connected therewith, as described and shown; plank, C, plock, D, bottom, E, and cover, K, constructed and arranged substantially as precified.

83,049.—COAL STOVE.—C. S. Doolitell, Mansfield, Ohio. I claim, ist, The arrangement of the air pipe, C, fire chamber, B, slotted pipe, H, and flattened flues, F, whereby the current of air entering the pipe, C, is beated in its passage through the fire chamber, and distributed through the slotted pipe, H, into the series of flattened flues, E, where it mingles with the cool air entering said flues through the pipes, D, as here in shown and described.

bed. The flattened air flues, E, constructed as described, and arranged in re-the flattened air flues, E, constructed as described, and arranged in re-

24. The flattened air flues, E, constructed as described, and arranged in respect to the outer case, F, and egress draft openings of the fire chamber, B, substantially as here in shown and described, and for the purpose set forth. 3d. The combination of the slotted pipe, H, with the flattened flues, E, and with the pipe or pipes, C, passing through the fire chamber, B, substantially as here in shown and described, and for the purpose set fort. The combination and arrangement of the air pipes, D, with the fire chamber, B, and with the flattened flues, E, substantially as here in shown and described, and for the purpose set fort. Substantially as here in shown and described, and for the purpose set fort. Substantially as here in shown and described, and for the purpose set fort. Joint Dett, Bochelle, III. Joint 1 at The double double inc. or substantial when onstructed sub-

83,050.—CHURN.—William C. Douthett, Rochelle, III. I claim, ist, The double oscillating or swing joint, when constructed sub-stantially as above described, and for the purposesset forth. 2d, The hub, P, in combination with the adjustable rod, F, arms, H, ring, I, piece, K, and rod, O, all operating to revulate the length of the stroke of the dasher, c, as well as to produce the stroke itself, substantially as described. 83,051.—PUMP.—C. H. Dreyer, Nashville, Tenn. I claim the fixed piston, D E, constructed of two parts, and provided with the valves, a and b, c and d, and their passages, e fg, and h i, leading to the lower and upper parts of the cylinder, and the passages, k i, all substantially as and for the purpose described.

86.052.

-Automatic Car Coupling.-Albert J. Elder, Kan-

80,092.—AUTOMATIC Call Construction sas city, Mo. I claim the spring bar, D, when provided with the hook, m, and arranged in the open draw head. A, to operate in connection with the tooth, a, in the manner and for the purpose specified. 83,053. — WINDOW SHUTTER. — Frederick Engel, Romeo,

Mich. Iciauu a window shutter, composed of metal plates, C, which are separ ately formed with rolls and overlapping edges, and connected by metal roles D, forming hinges that work in opposite directions, and when folded up, con stituting a roof to shield the window from snow or rain, all as herein shown and described. Described.

33.054. — OAT-DUSTING MACHINE. — Richard Exelby, and George W. Marshall (assignors to themselves, John S. Lacy, Jr., and John A. Seymour), Buffalo, N. Y.
We claim the arrangement of the hopper, K. rodand valve, J w. vibrating screen, R. operated by eccentric, t. and rod, u, pipe, k. fan, J. distributing board, x, beaters, i, crank, q and gearing, p o m 1, forming a portable oat dusting machine, constructed as herein set forth.
83,055. — SAFETY BRIDLE. — E. R. Ferry, New Haven, Conn. I claim, 1st, The check bars, E. E. provided with the levers, c. for the passage of the driving reins is adjusted to be pulled to guide the horse, without pressing the check bars against the sides of his mouth, as herein shown and described.
2d, The combination of the detachable check rein. J. with the data of the set of the statement of the detachable check rein. J. with the data of the set of the set of the set of the set of the constructed set of the set of t

reins, I, when said parts are used in connection, or applied with the check straps, D D, and the bit, F, all arranged substantially as and for the purpese

specified. 83,056. — CARRIAGE CURTAIN FASTENING. — John C. Fish Barnstable, Mass. I claim a carriage curtain having button holes, each with an inserted elastic across the head of the slit thereof, substantially as shown and de-

elastic across the head of the slit thereof, substantially as snown and ue-scribed. In combination with each button having an oblong crown shaped bad, an elastic, which holds the edge of the eye close to the sides of the shank, substantially as shown and described. 83,057.—CHURN.—Nathan C. Folger, New Orleans, La. Tclaim the arrangement of the churn. A, with relation to the rockers, D, when the latter are provided with the springs, F, and all the parts are con-structed and united in the manner and by the means substantially as herein described, for the purpose set forth. 83,058.—Toy PISTOL.—Wilmer D. Gridley, New Britain,

Conn. Conn. I claim the barrel and stock, a b, in one piece, spring, e, trigger spring, i f, spring, g, and orifice, d, substantially as and for the purpose described. 83,059.—HORSE POWER.—John A. Haffner, Commerce, Mo.

I claim the combination of the shaft, C, wheel, F, or casing, D, and colled spring, a. when saidspring is provided with an interior colled rubber spring, e, to support the exterior spring, and relieve the strain thereon, all substan-tially as shown and described.

83,060.-ENGINE GOVERNOR.-William S. Henson, N.Y. city I claim the revolving spindle. A, collar, F, and ball, K, connected to which are the forked arms, C C, cross heads, M M, balls, D D, and pivoted bars, I T the several parts being constructed, arranged and operating substantially in the manner as specified.

83,061.—Plow.—Rozander S. Higgins, Olney, Ill.

I claim the combination of the prolonged colter, I, with its rearwardly curved cutting point, i', and the obliquely presented share, D, so arranged that its sole does not run in contact with the floor of the furrow, all con structed and operating as and for the purposes herein specified. 83,062.—Iron Door.—Lewis Hover, Chicago, Ill.

50,052.—IAUN DOUG.—Lewis Hover, Ohncago, In. I claim the combination of the outer and inner doors, B B, an cogged hinges, A A, when secured by the double latch. D, or its equ all substantially as and for the purposes here in shown and specified. , and their eqvivalent,

83,063.-Horse HAY FORK.-C. A. Howard, Pontiac, Mich LIGHT INTER INAL TORK. - U. A. HOWARD, PONTIAC, Mich. I Claim, 1st, The parts, A and B, of a horse hay tork, provided with corru-ated, grooved, or otherwiserougnened surfaces, arranged to be locked to ether in any preferred position. by a lever and include ways, substantially s and for the burphese described. 2d, The combination with the parts, A and B, arranged to be locked as de-cribed, of aspringfors separating them for unlocking, substantially as and or the purpse described.

83,071.-SPADE.-Johan Linnemann, Copenhagen, Denmark. I claim, 1st The blade of a spade constructed with one or both of its verti-cal edges serrated, substantially as described. 24. In combination with the blade and handle socket of a spade, a detach able handle, B, substantially as and for the purpose set forth.

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83,072.-WORK TABLE APPLIANCE.-J.G.Lucas, Newark, N.J. Leium the device or appliance composed of the annular spool holder, B, c cashion, A, mirror, E, scissors housing clasps, d, emery case, C, serving so as a thimble holder, and thread cutter, D, the whole arranged substan-ily as and for the purpose specified.

83,073.-COMPOUND FOR TANNING.-Samuel Lusten, Lines-¹ ville, Pa. I claim the compound composed of the above ingredients, combined in the proportions set forth.

83,074.—ANIMAL TRAP.—Wilson McClure, Sinking Spring,

Ohio. I claim the described arrangement of the spring. H. roller, G. bar, D. cross head, E. spikes, F. spring, K. roller, J. trip lever, f. and bait rod, L. with re lation to each other, the bottom, A. posts, B. sides, C. and removable casing M, all operating as described, for the purpose specified.

83,075.-LINE HOLDER.-D. W. C. McMaster, Southborough,

Mass, I claim the disks, B C, constructed as described, with the radial ribs, and rranged with relation with each other and thefixture, A, in the manner nerein set forth, for the purpose specified.

83,076.-DEVICE FOR HEATING RAILROAD CARS.-Francis

Meddock, Mainsville, Ohio. Iclaim the steam chamber, B. beneath the car floor, traversed longitudi-naily by steam pipes. D, which are attached, as between adjacent cars, by fexible connections, E. and which are provided in the chamber of each car with branch pipes, F, and vares, g, operateable from the inside of the car, and adapted to be closed or opened, as the necessities of each car in the train may require, substantially as described.

83,077.—GRAVE MOUND.—Jonathan Meley, Trenton, Tenn. I claim the grave mound, when formed by coating the raised portion. A, with a layer of cement, enclose by the brick border, and covered with a compact coating of shells, G, as herein shown and described.

83,078.-MACHINE FOR BENDING WOOD.-Joshua Merrill,

Boston. Mass. I claim, in combination with the toothed feed roll, b, the concave shaper block, c, constructed and arranged relatively to the roll, substantially as shown and described. Also, in combination with the toothed feed roll, a sharper block, made adjustable, substantially as set forth.

83,079.-BALING PRESS.-John F. Milligan, St. Louis, Mo.

I claim combining the screw threaded shaft, D, sectors, D', and platen, the togglelevers, G, and rods, E, in the manner herein shown and describ

83,080.-CHURNING APPARATUS.-Ed. J. Moore, Westfield,

N. Y. I claim, 1st, The combination of the pivoted bars, J, H, F, and G, with the ever, E, and dasher shaft, I, substantially as described, for the purpose speci-

fied. 24. The combination of the connecting roal, L, with the heavy or weighted lever, K', and with the parallel levers or bars, F, substantially as here inshown and described, and for the purpose set forth. 3d, Extending the pivotes bars, H, above the lever, E, and connecting them with the dasher handle, L, by means or the short connecting bars, J, substan-tially as herein shown and described, and for the purpose set forth. 4th, Extending the heavy or weighted ever, K, knough the upright, D, and pivoting it at or near its center, substantially as herein shown and described.

83,081.-NUT LOCKING DEVICE.-Wm. Morehouse, Buffalo, N. Y. I claim theforked nutlocking device, D, constructed with a shoulder, b', and with separated portions, b b, substantially as and for the purpose $\mathfrak{k} \mathfrak{e}$ scribed.

83,082.-MACHINE FOR TURNING BROOM HANDLES.-G. M.

CO, OCZ.—MACHINE FOR IURAING DROOM HANDLES.—G. M. Morrow, Clarksville, Ohio. I claim, 1st, Controlling the cutters, through the medium of the plates, sliding at right angles to each other, the catches, n n', and the cam wheels.E, constructed to operate substantially as described. 24. The combination of the shiding plates, M M', N N, catches, m m', n n', wheels. E, having flanges, n'', and shaft, E', with the hollow mandrel, K, pivoted lever, ra, link, r', cutters, l l', and springs, s', substantially as de-scribed for the purpose specified, 92.002. Construction Link, and the state of the stat

83,083 — COMBINED HUB AND BOX FOR WHEELS.—Samuel Mosper, Winchester, Ill. I claim the combination of set screws. e, with flange, C, and washer, s, the whole constructed and arranged substantially as specified.

Leham the rail, A. spreading teet, Al, sliding teet, A2, truss rods, b, cross bar, ri, angle blocks, b2, and hook, G, the whole being combined and ar ranged in the manner described and for the purpose set 101th. 83,085.—Cooking Stove.—Alexander G. Patton, Troy, N. Y. I claim, 1st, A stove, so constructed ast, embrace within itself a water-heating reservoir, and a warming closet, both of which form a constituent part of said stove, the same being arranged substantially as shown and de and of the second second in the water reservoir, substantially as and for the 2d. The flue, 8, formed in the water reservoir, substantially as and for the 24. The fulle, s, formed in the water reservoir, substantially as and/or the purposes how nand described. 34, The construction of the vertical descending flue or flues, 2, for direct ing the greatest portion of the heat towards the ends of the over, by means of the curved form of the fixed reservoir plates, as shown and described. 4th, The arrangement of the lixed water reservoir, with reference to the flues, 6 and 7, which surround said water reservoir, substantially as shown and described.

flues, 6 and 7, which surround sales where 4 and 4, which is a surround sale where 4 and 4, which is a surround sale where 4, 6, 6, 6, 6, 7, and 8, substantially as and 6 the maximum described

83,086.—Cooking Stove.—Alexander G. Patton, Troy, N. Y.

Co. Octomer Countries Stoves.—Alexander G. Fatton, 1 Foy, N. 1. I claim, ist, A stove, having combined within it a second or extra oven and a water heating reservoir, which form constituent parts thereof, substantial ly in the manner shown and described.
24, The combination of the water reservoir, E, and the second or extra oven F, when forming fixed or permanent parts of a cooking stove, and arranged substantially as and for the purpose specified.
3d, The arrangement of the fives, 12, 3, 45, 6, and 7, with reference to the ovens, C F, and water reservoir, E, when constructed as herein shown and described.

83.087.-HAMES FASTENER.-Wm. H. Payne, Janesville, Wis.

I claim, 1st, Drawing the hames together by means of a levered cog wheel D C, and toothed bar. A, substantially ashere in shown and describes. 2d, The combination of the toothed bar. A, c-up, B, cog wheel C, (having a lever, D, formed upon or attached to iD, and slotted bar, F, with each other substantially as herein shown and described, and for the purpose set forth.

83,088.-DAMPING APPARATUS FOR COPYING PRESS.-Adolph

Peari, New York city. I claim the combination of the leather covered dampening roller, B, the moistened cushon. D, and the water bath in the case, A, substantially as de-scribed, and for the purpose herein set forth.

83,089.—PLANING MACHINE.—F. K. Plumbly, Buffalo, N. Y. I claim the combination of the hand plane, A, with the suspending rod, B, box, D, rest pin, C, and gage block, E, all constructed to operate substantial-iy as described.

83,090.-Awning.-Royal P. Pratt, Hartford, Conn. Ante-

83,090.—A WNING.—ROYAI F. FTALL, Hartlord, CONIN. Antle-dated October 6, 1868. I claim, 1st, The combination of the pulley, D, and end block, G, with the rods, I and J, when constructed and arranged substantially as herein de-scribed, for the purpose of winding up and sustaining an awning. 24, The cords, m n o p d, arranged as herein described, for the purpose of raising and folding under the end flaps of an awning. 36, The combination of the cord, m n o p q, the slotted tube, K, and the spring, so rise equivalent, constructed and operating substantially as here in specified.

83.084.-LADDER.-P. M. Papin, St. Louis, Mo.

4th, flue

for the purpose described.

I chaim, 1st, connecting the body of a velocipede to its ariving shart, in	as and for the purpose described.	in specifica.
such manner as to vary the position of such body, and its seat, with respect to such driving shaft, in manner and for the purpose as hereinbefore ex-	2d, The combination with the parts, A and B, arranged to be locked as de- scribed, of aspring for separating them for unlocking, substantially as and	83,091.—ELECTRICAL AMALGAMATOR.—Julio H. Rae, Syra-
plained. 2d, Combining with a velocipede a compound crank, or series of cranks,	for the purpose described.	cuse. N. Y. I claim the drum, A, provided with a lining and with a beater, representing
or eccentrics of different radii, for enabling the speed and power of the vehi-	83,064.— GEARING FOR GRINDSTONES.— Francis Howlett,	the two elements of a galvanic battery, said beater serving also to bring all
cle to be varied, essentially as berein shown and described.	West Rupert, Vt., and Charles R. Sherman, Salem, N. Y.	the particles of the pulverized ore in intimate contact with the mercury substantially as herein shown and described.
3d, The arrangement of the rope, n or its equivalent, as affixed to the forked bar, m, and supported and guided by the guides, o of 0203 04 05, or	We claim the slotted adjustable block, G, carrying the wheel, E, and adapt- ing it for adjustment with the pinion, D, substantially as and for the purpose	
their equivalents, substantially as before described, and herein shown.	described.	83,092.—CONDENSER.—Franklin Ransom, Buffalo, N. Y.
4th, The combination, with the body of a velocipede, of a seat adjustable thereon, substantially in the manner and for the purposes set forth.	83,065PUMPChas. W. Hovt, South Norwalk, Conn.	I claim, 1st, The arrangement with the condenser, A, and main induction- pipe, B, of the overflow pipe, d, and small pipes, d1 d2, as herein set forth.
5th, The combination of the body of a velocipede, formed as described,	I claim the arrangement hereinshown and described of the operating lever	2d. The arrangement of the secondary injection pipe, I, in relation to the
and its adjustable seat, with a compound crank, or its equivalent, substan- tially as and for the purposes set forth,	E, chains, D, pulleys, ab, and brake, C, with relation to the double acting	partitioned condenser, A, and boiler feed pipe, J, as set forth.
	pump, A B, all as set forth, for the purpose specified.	83,093.—CORN CULTIVATOR.—Edward F. Rate, Cedar Coun-
83,036.—PLOW.—James Campbell, New Town, Ill.	83,066.—FUEL FROM SPENT TAN BARK.—Benjamin Irving,	ty. Iowa.
1 claim, 1st, The partially revolving square beam, B, carrying plows or shovels, secured to the plow frame at an acute angle to the line of the	New York city. I claim the new manufacture of compressed fuel from spent or refuse tan	l claim the levers, A and J, roller, F, and regulating bars, D, when con- structed and arranged substantially as and for the purposes herein specified.
draft, constructed and operating substantially as and in the manner set	bank by the method on nuclease of forming it into blocks on other enitable	
forth. 2d, In combination with the above, the stirrups, F F, lever, D, notched	shapes, for fuel and transportation, substantially as hereinbefore described.	83,094.—ANIMAL TRAP.—Edward Reichard, Washington,
bar, E, brace chains, M M, cross piece, P, and the angle axles, N N, the	83,067.—Machine for Grinding the Cutters of Mowing	I claim, 1st, The trap, formed of the base, A, the fixed lobe, B, journal, D,
whole arranged and operating substantially as set forth.	MACHINESD. W. Jameson, Warren, Ohio.	spring. E, and movable lobe, C, substantially as and for the purposes set
83,037—COMPOSITION FOR FORMING BUILDING BLOCKS, PAVE- MENTS. TILES. ETCSamuel E. Carr. Dapyille. Pa.	I claim the standards or arms, F, hinged or pivoted to the bridge tree, E, in combination with the adjustable frame, G, arranged and operating conjoint-	forth. 2d, The combination of the trip lever, f, the spring, C, its cam, c1, and de-
I claim an in-proved composition for forming building blocks, pavement	ly, as and for the purpose substantially as set forth.	tent spring, b, substantially as and for the purposes set forth.
tiles, etc., formed of the ingredients, and in the proportions and manner	83,068.—HORSE HAY FORK.—C. H. B. Kellogg, Tontogany,	3d, The spring catch, G, in combination with the lobe, C, when arranged to secure said lobe to the base plate, A, by the detent, g, substantially as set
substantially as herein set forth and described. 83,038.—FENCE.—J. M. Chaplin, Middleport, N. Y.	Ohio.	forth.
I claim the wires, C C, with the wheels, E E, spring, D, and pickets, B, all ar-	I claim a hay fork constructed and operating substantially as shown and described, that is to say, with the head, A, central rod, B, hooks, C C, rods,	83,095.—Valve Motion for Steam Engines.—Hugh Reid,
ranged in connection with the posts, A A', substantially as and for the pur-	E E, catch. i, and lever, K, arranged substantially as described, for the pur-	St. Louis. Mo.
pose set forth.	poses set forth.	I claim, 1st, The forked rod, D, its ends, d, slotted at d', the pins, e, with
83,039.—CHILD'S PEDAL FOR PIANOS, ETC.—Carl August Class. St. Louis. Mo.		the toggle links, E, cross head, F, and spring, G, combined substantially as
I claim the stool, A, and the pedal slides, B, when employed as and for the	I claim the arrangement of the beater, D E, and the quadrangular yoke, E, bearing the standing fingers, G, suspended from the cover, B, in such a man-	set forth. 2d, The rock shaft, B, in combination with the rod, D, links, E, valve stem,
purpose described and set forth.		c. and valve, C, substantially as set forth.
83,040.—DROPPER FOR HARVESTER.—George R. Clements,	remain stationary, as herein described, for the purpose specified.	3d, The combination of the valve, C, the exhaust pipe, A, the discharge pipe, H, and atmospheric valve, I, as set forth.
Prescott, Wis.	83,070.—PACKING CAN.—N. P. Lindergreen, Boston, Mass.	83,096.—FANNING MILL.—Geo. Richards and David Strick-
I claim th elever, H, composed of two parts, 11', connected by a pivot m, in combination with the cut-off and grain discharger, connected to said		land, Richland Center, Wis.
lever inithe manner substantially as and for the purpose specified.	nected by joints, constructed and arranged as herein shown and described.	We claim, 1st, The adjustable sliding flanged board, K, constructed

arranged substantially as herein shown and described, in] combination with the shoe, I, as and for the purposes of forth. 2d, Suspending the sloe, I, in the sense of the shoe chamber, by means of the springs, J, substantially in the manner herein shown and described, and for the purpose set forth. 3d, The c mbi ation of the sliding gate, M. connecing rot or rods, N. lev-er, O, and ratchet bar, P, with each other and with the opening in the top of the case, A, substantially as herein shown and described, and for the pur-pose set forth. 4th The rect vigular hopper, Q, constructed and arranged substantially as herein shown and described, in combination with the hopper shaped top of the case, A, as and for the purpose set forth. 5th, The fans, D, formed with projecting wings, d', upon their central parts, substantially as herein shown and described, and for the purpose set forth.

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parts, forth

forth. ftp, The bag-holder, W, constructed substantial'y as herein shown and de-scribed, in combination with one of the posts, B, of the frame of the mill, as and for the purpose set forth. Th, The receiving measure, formed by the combination of the sliding gate X_i and rod, Z, with the box, X, substantially as herein shown and de-scribed, and for the purpose set forth.

83,097.—Pocket Safe for Friction Match Cord.—Wm.

H. Rogers, New York city.
FI claim the match afe, A, constructed substantially as described, or in any equivalent manner, when-ny the coll match and the tube, E, may be properly sectored and used, sub shintally as set forth. In combination with a friction match cord, the tube, E, either binged or attached to a match-aste or box. or n d, and either cut away on one or both sides, substantially as ad for the purposes described.

83.098.-FBUIT PICKER.-Jeremiah Schroy, Fortville, Ind.

83,098.—FROIT FICKER.—selectinan Controy, Fortyino, Int. Antedate O-toher 2,1968. I claim the curved meta plate, C, connected to the onter ends of the irreg-ular shaped hoor, B, and provided at its upper portion with a series of nar-row slots for forming the comb teeth, point d as shown, and used in combi-nation with the pole, A, and conveyer, F, to operate substantially as set for the set of the s

73,099.-BEER COOLER.-Louis Schulze, Louisville, Ky

73,099. - BEER COOLER. - Louis Schulze, Louisville, Ky. I claim, ist, A heer cooling apparatus, consisting of a series of contrguous and connect, g double bottomed pipes or channels, one above another, in vertical line, and included towards each other, when said pipes or channels are mase with "quare sides and bottoms substantially as and for the pur-poses set forth.
2d, A beer cooling apparatus, CODSISTING of a series of contiguous and con-necting double bottomed pipes or channels, one above the other, in vertical line, the water channels of which, at the conliguous ends, are so construct-ed that they can be opened, substantially of a series of contiguous and con-necting double bottomed pipes or channels, one above the other, in vertical line, the water channels of which, at one conliguous ends, are so construct-ed that they can be opened, substantially as and for the purpose, set forth.
3d, A beer cooling apparatus, constructor of heat, substantially as and for the purposes described.
4d, h. In a beer cooling apparatus, the application, in combination with water for cooling apparatus, to its flow, substantially as and for the purposes settorthe.
5d, the combination, in a beer cooler, of the double bottomed channels, by the combination, in a beer cooler, of the double bottomed channels, for the combination, in a beer cooler, of the double bottomed channels, by the combination in a beer cooler, of the double bottomed channels, for the combination in a beer cooler.

forth. 6th, The combination in a beer cooler, of the rollers, j, provided with pad-dles, k, with the double bottomed channels, B, substantially as and for the purposes d scribed.

83.100.—SolDERING VESSEL.—Conrad Seimel, G'np int,N.Y. I claim 1st, The stands, A, in combination with the tronghs, B B, and the gas applaratus, C, as berein described, for the purpose specified 2d, Th trongns, B, in combination with the shelves, b, as and for the pur-pose set forth.

83,101,-LAWN MOWER.-John Shaw, Brooklyn, N.Y. Pat ented in Ruzland Jacuary 23, 1864. I chaim folding the cuting rud of lawn mowing machines up toward the headle end, for the purpose of being used for rolling only.

83,102. -BUCK E -Perry W. Smith, Abingdon, Ill. I claim, as an article of mainfacture, the within described double buckle when constructed and operating substantially as and for the purposes herein set forth.

83,103.-MACHINERY FOR PRINTING YARN.-E. J. Stephens

83,103.— MACHINERY FOR PRINTING YARN.—E. J. Stephens Pawtucket, R. I. I datam, in combination with suitable ribbed printing evlinders, A A, a series of furnishing color rollers, D D, bung in yielding bearings, and oper ated by means of pinions, G, with teeth of variable appth, or the equiva lents thereot, in the manner substantially as described for the purposes speci

83,104.-GAS FURNACE FOR HEATING SOLDERING TOOLS.-

83,104.—GAS FURNACE FOR ILEATING SOLDERING TOOLS.— J. H. Stampson, Boston, Mass. I caum the gas hirasee for beating soldering tools, consisting of the double cones. A B, supporting the inclined cylinders, D E, containing the perforate -cylinders, FG, composed each of two parts, 11 f2 g1 g2, sold cylinders, D E, connected at their rear engs by the mouth pieces, d3 e3, and at their jorward en s by the curved pipes, h2 h3, all arranged and operating as described for the purpose specified.

83,105.—CORN PLANTER.—S. L. Sweeney, Morrison, Ill. I claim, 1st, The combination of the roller wheet, G, arm. H, rod, I, ar oscillating plate, F, arranged to operate substantially as and f.r the purpo

set forth. 2d, The combination of the wheel, G, the arm, H, connecting rods, I and N with the two oscillating wheels, F arrang d substantially as set forth 3d, The combination of the wheel, G, with hile', G', and arm H, with holes H', for connecting and disconnecting the wheels and the dropping mechan-ism, substantially as set forth.

83,106.-SUGAR-JUICE EVAPORATOR. - James Taylor, Can

ton, N. Y. Italian the described construction of the pan, A, having its sides extended I claim the described construction of the line box, the latter provided with the door, h, at one end, and the crimmey, B, at the other, all arranged to b moved upon the wheels e, a way from or over the Frate, D, formed between the ways, C, as herein set for th for the purpose specified.

83.107 .- SEAM JOINT FOR CANS, ETC.-E. A. Thomas, Phila

double, - Geam COMPT FOR CANS, ETC. - D. A. Thomas, Phila-nchhia, Pa. I.c. an as de seam or joint for sheet-metal cans or boxes, composed of a dovetail projection, a, struck or swaged upon the lapped edges of the metal, and then bammer or closes down, substantially as herein shown and de-sorthed.

83,108.-STEAM GENERATOR.-J. L. Thomas, Alliance, Ohio. **ED**₁105. — DIEAM UENERATOR.—J. L. HOIMAS, AHRANCE, Ubio. I clasm. lat. we combination of the float, B. chain, C. and \cdot eight J. with the serrated wheel, D. graduated wheel, E. adjustable plate, i, stolted arm, h. cock, G. and blue. F, as here in set forth. 2d, the arrangement of the pipe, O. lever. R, and adjustable pin, S, with reference to the wheel, D, and whistle, P, as herein described.

83,10,.-DEVICE FOR STRETCHING TELEGRAPH WIRES.-

M. Thompson, Roston, Mass. I claum the wilbin describ d instrument for stretching telegraph wires, con sisting essentially of the plate or bar, A, and jaws, C C, as set forth.

83,110.-HAY RAKE AND LOADER.-J J. Thompson, Rich

wood, Ohio. I claim the combination of the rotating device. F' H, rake, G, endless carrier p pins of ingers, w, and stationary plate, i i2, all constructed, arranged, and operating in the manner and for the purpose set forch.

83,111.-CULTIVATOR.-J. J. Thompson and V. F. Collier

Richwood, Ohio, Richwood, Ohio, We claim ble combination, in a quadruple plow or cultivator, of the inner ovable beams, B B, staples, h b, rod, F, blates, D D, onter stanonary beams 'B' tongue, A, plate, I, and handles, L L, all applied in the manner and for he purpose set forth.

83,119.-SASH LOCK.-E. H. Tobey, Bridgeport, Conn., as

signor to humself and A. R. Hale. I chain the arrangement of the bolt, A, within the sylnder, C, when the aid cylls der is provided with two solots, and d, and the bolt, with the stud, f, o operate in the said slots, substantially in the manner sp cified.

83,113.— DIAPHIRAGM BELLOWS FOR DRY GAS METER.—A. Tufis, Malden, Mass. Antedated Oct. 3, 1868. I claim a gas-meter bellows in which one bead is annular, with an attached flange, to which the flexible material of the bellows is secured, and in which head the opening through which the form is extracted in parts is closed by soldering the disk, 1, at its edge which is remote from the c-rd, h, which se-uments of the behavior of the the form a substant all work the secure of the best of the secure of the behavior of the b

plate, C, and washer, F, by means of the countersunk screw, E, extending centrally through the plate and washer, between the ends of the link into a nut, G, between the ends of the, link upon the plate, B, as herein described and shown.

83,118.—PIPE COUPLING.—William H. Yeaton, Philadel-

83,118.—PIPE COUPLING.—William H. Yeaton, Philadel-phia, Pa.
1 claum, 1st, The combination of the portions, A and B, of the coupling with the yoke, O, the whole being constructed and arranged substantially as and for the pure see described.
2d. The plug, C adacted to the portion, B, of the coupling, and having a handle, i, arranged in respect to be yoke, D, substantially as set torio.
31, The combination, with the yoke, D, of a lid or bonnet, F, having lugs, t , and hinged or otherwise adapted to the portion, B, of the coupling, for the purpose spec.2d.

82,119.-MANUFACTURE OF IRON AND STEEL. - Richard Yielding, Detroit, Mich. I claum, 1st, The process of fusing and refining metal, and decarbonizing

1 Claim, 1st, The process of Theme and the form. 2d, The converting of iron into carbonized steel. 3d, The converting firon into mannealable still, and the use of the fore-going articles, in the manner and for the purpheses herein set forth, and the general combination of the principles, and the use of the articles, combined and separately, and for the use of the old alone, in the manner and for the purposes set forth in the foregoing specifications. The purphese of the articles of the manner and for the set of the articles of the set o

83,120.-TABLE CLOTH PROTECTOR.-Mrs. J. H. Mott, Wash ington, D.C. I claim a table-protecting apron, formed with raised edges, a a, and attach-ing straps, c c and e. the whole constructed and arranged substantially as described, for the purposes specified.

83,121. - PROCESS OF ROASTING AND CHLORIDIZING ORE .-

Henry Tindall, Chicago, 111. I claim the process of treating ores, substantially such as is above de-cribed.

-FURNACE FOR ROASTING AND CHLORIDIZING ORE. 83.122.

Henre Tindall, Cblcago, Ill. I c ann, Isl, A fu hace for treating ores, in which the operation of desul hurizing and chloridizing or chlorinating such ores is performed simul-aneously with the roasting of the same, substantially in the manner de-

¹ ancousify with the roasting of the same, substantially in the manner described.
² 2d The chamber. E, of the furnace, as composed of a metal bottom, with metal sides and roor, said bottom, and other solution of the exclosed of the subpury substantially as shown and described.
³ 3d, The combination of the chamber, E, and the gas generating apparatus, substantially as shown and described.
⁴ to, The combination of the chamber, E, and the gas generating apparatus, substantially as shown and described.
⁵ th The arrangement of the sole or hearth with reference to the chute, P, substantially as shown and described.
⁶ the arrangement of the sole or hearth with reference to the chute, P, substantially as shown and described.
⁶ The arrangement of the wails or partitions, C C' by which they are made to support the sole or hearth, substantially as shown and described.
⁶ The arrangement of the car, R, whit reference to the chute, P, and chamber, E. substantially as shown and described.
⁶ Oth, The arrangement of the sole or hearth end the chamber, E, and the grave made to support the sole or hearth, substantially as hown and described.
⁶ Phone arrangement of the party of the chute, P, and chamber, E. substantially as shown and described.
⁷ H, The arrangement of the party of the chute, P, and chamber, E. Bayong Rep. Decouver Optime.
⁶ Phone are argued to the party of the sole or hearth in the reference to the chute, P, and chamber, E. Substantially as shown and described.

chamber, E. substatially as shown and described. 83,123 -- P. STON Rop PACKING.- Orrin Collier (assignor to idmself and Erva B. Stillman, Sacramento, Cal. I claim, 1st, The metal rings, a and n, as constructed, so that they have about the same annount of surface bearing against the rod, and both about the same amount of urface nearing against the face of the glaad, whereuy the two shall wear equally, substantially as described. 2d, The construction of the packing with reference to the stuffing box, whereby a free soarce is left around the ring, so as to allow thein to move freely wit the rod, if it should not work perfectly true. 3d, The glaid, c, and the hinng, E, with the oil cup, F, when arranged sub-tantially as and for the purpose here in described.

REISSUES.

35 925.—LAMP BURNER.—James Donning, Bridgeport, Conn. Dated July 22, 1862; reissue 3,158. I claim & d fiec or coole, having a flame slot, in combination with a slid ing support, the two being connected together, and removanie from the wick tune, and an air space b ing provided between the sliding support and the side of the wick tube, substa tially as specified.

67,355 - MACHINE FOR GRINDING THE CUTTERS OF MOWING Machings – Henry Richardson, New York, assignee, hy mes e assignments, of Edwin M. Scott, undurn, N. Y. Dated July 30, 1867; reissue

I claum. Ist, in combination with a revolving grinding wheel or stone, on the end of a shaft, the vertically, or nearly so, swinging frame. for holding the reaper k ife to be ground, so that it may be swinging frame. for holding the reaper k ife to be ground, so that it may be swing up to the stone or back. To be examined by the operator, substantially as described. 2d, in combination of the swing frame, the inclining of the clamping har, so that the sections or edges to be ground n.ay ne brought in their entire length to the grinding surface of the stone, substantially as described. 3d, The combination of the .isk, slides, and thumb screw, as and for the purpose set forth. 4tu, The combination of the disk, slides, bolt, and lever, substantially as and for the purpose described and represented.

65,963.-SLEEPING CAR-John Swan, Baltimore, Md. Da-

50, 903.—SLEWPING CAR — 10111 SWan, Baltimore, Mu. Date ted June 18, 1867, refssue 3.160. I claim, 1st, A s-ries of state r ome made orosswise of the ^ar, and provi-ded with a side passage and independent ventilstion, substantially as and for the purpose set forth. 2a. The reservor F, pipes, H H, and basins. J J, for supplying water to the statutorous, substantially as specified, combination with a series of cross berths or staterooms, as and for the purpose set forth.

EXTENSIONS.

IMPROVEMENT IN SPRING ROLLERS FOR WINDOW CURTAINS, ETC.-Benjamin Bray, of Salem, Mass.-Letters Patent No. 11,638, dated September 5, 1854. 1 claim providing he tubular or hollow curtain roller with a long, spiral spring witchn it, when said, pring is used for the purpose not merely of draw-ing ap the curtain op its recoil, as that is not new, bud of hala, cing it in any position in which it may be placed, substantially as herein described.

Reissues, -A reissue 8 granted to the original patentee, his heirs, or the assumees of the entire interest, when by reason of an insufficient or defective specific tion the original patent is invalid, provided the error has arised from inadvertence, accident, or mistake, without any fraughlent or deceptive intermon DESIGN FOR CLOCK CASE FRONT. -Elias Ingraham, Bristol, Conn.-Design No. 107, dated Sept. 3, 1860. I claim the design for a clock case, as bereinabove illustrated and set forth. Interior. A parentee may, at his option, have in his reissue a separate patent for each disting part of the invention compre-ended in his original application, by paying the required fee in each case, and complying with the other require-ments of the iaw, as in original applications. Each division of a reissue consultates the subject of a separate specifica-rion descriptive of the part or parts of the invention claime i in such divis-ion; and the draw may resent outparts. Address MUNN & CO., 37 Park Row, for full particulars.

CALENDAR CLOCK.-Wm. H. Akins and Joseph B. Burritt,

CALENDAR CLOCK.—Wm. H. Akins and Joseph B. Burritt, Itaara, N X.-Lett-rsPaten No 11,711, dsted Sept. 19, 1854. We claim, 1st, The arranarment of the four rows of teeth on wheel, L, as shown 10 ff. 8, in combination with the corrugated plate, N, the detent X. at due arm, O, the Prockure shaft. P, and the slotter arm, Q or the equiva-lent of said arms and rocking shaft, and for the parposes set forth. 24, Rasing the click, 37, over four or more of the teeth of the wheel, L (when run down), on the first day of the month, thereby acquiring a retain-ing power sufficient to be used in the short months, thus moving the wheel, L, carryi g the haod, I, on the dial, from the 28th of February, past the 29th, 50th, and Sis divencies of the wheel, L to the ffs. 1, or the 1st day of March, those teeth (the 29th, 30th, and Sist) being removed, the detent, X, stopping the wheel, L, at the polat marked, on of g.S. Indicating the 'frist day of every month, one tooth only being used, except at the last day of a short months, the rod, 30, slippong through the club of M'' ever, Y. 30, W, also Chaim the combination of the heilix, V, the lever, Y, Infing rod S0, the detent, A, the pin, 55, the click, 37, the wheel, L, and spiner, f, and for the pin poseg described, that is, giving movement to the wheel, L, the rollers, F G and H, being moved by similar devices.

SAFETY WASHER FOR SECURING WHEELS TO AXLES .- Wm Thornley, Phil delphia, Pa.-Letters PatentNo.11,705, dated Sept 19,834, 1 datm a washer having a projection flage and stop or «tops; also the cap, with the stop or st tops. As thereinbed, for the purpose specific.

and thus place them on an equal rooting before the courts and the plane, **Caveats.**—A Caveat gives a limited but immediate protection, and is par-tcularly useful where the invention is not fully completed, or the model is not ready, orfurber time is want, dior experiment or study. After a Caveat has been filed, the Faten Office will not skue a patent for the same invintion to any other person, without giving notice to the Caveator, who is then al-lowed three months time to file in Shappilottion for a patent. A Caveat, to any value, should contain a clear and concise description of the inven-tion, so far as it has been compreted, illustrate by drawings when the ob-ject admits. In order to file a Caveat the Invention, with a description in his own words. Address MUNN & CO., 37 fark Row, New York. Additions can be made to Caveat as & my time. A Caveat runs one year, and can be renewed on payment of \$10 a year for a slong a period as desired

with the slop or stype, as described, for the purpose specified. MACHINE FOR WASHING PAPER STOCK.—Horace W. Peaslee, Milden Bridge, N. Y.-Letters Parent No. 12238, dated Jan. 23, 1855; anie-dated Sept 20, 1854; reissue No. 340, dated Jan. 8, 1856; reissue No. 2,515, d te March 19 1867. I claim a rotating pervious cylinder, provided with projecting teeth on the inside and monu-ed substratily as herein described, so as to be sub-tained and rotated without a stuart and arms, that the inside and ends may be unob-structed for the passage of the stock, substantially as and for the purp-se defined by the substantian with a pervious scienting rest.

OCTOBER 28, 1868.

pose of tur ing or moving the grate when necessary, and this without danger of ashes escaph got of the sup pit, pr vided it, door be closed. I also claim the combination of a fire pot, a dome surmounting it, a series of flurs (I ad ng from the base or lower part of the dome), the whole being substantially as predicted or substantially substantially as predicted.

NEW PUBLICATIONS.

MANUAL OF PRACTICAL ASSAVING. By John Mitchell, F.C.S. Third Edition. Edited by Wm. Crookes, F.R.S., etc. London: Longmans, Green & Co., 1863. A

We are indebted to the publishers for a copy of the above work, the merits of which have been thorough γ recognized by solentific men. The present edition contains all the important discoveries necessary to bring it completely up to the requirements of modern assaying, special attention having been paid to the Volumetric and Colorimetric Assays, as well as to the blowassays. The portion of the work devoted to the subject of oil and gaspipe blastfurnaces is of greatvalue. The work has been carefully and ably edited, and is printed in clear bold type. It is the best, in fact the only comnlet English work upon the subject. The old nomenclature has been retained, but as the work is written rather for pract cal assayers than as a text book, this is hardly a defect. It would be difficult find any fault with the book, still more so to suggest any improvement.

ATENTS. The First Inquiry that presents itself to one who has made any improve-ment or discovery is " Can a obtain a Pat-ent? A positive answercould be had by presenting a commissioner of P tents. A positive answercould be had present to the Commissioner of P tents. An application consists of a Mo et Draw-ment of the the had one of the second when Pettinn, Oant, and fall specification. The observed. The efforts of the in-ventor to discrete. The efforts of the in-ventor to discrete. The reforts of the in-general by with not success. After a seed and the work done over again. The best plan is to solicit proper advice at the beginning.

beginning. If the parties consulted are honorable men, the inventor may safely con-fif the parties consulted are honorable men, the inventor may safely con-fide his ideas to them: it.ey will advise whether the improvemen's proba-bly patentable, and will give him all the directions need ul to protect his rights.

bly patentable, and will give him all the directions negative proversions rights. Messrs, MUNN & CO., in connection with the publication of the SciENTIFIC AMERICAN, have been actively engaged in the business of obtaining patents r. over twenty years—nearly a quarter of a century. Over Fitty The usand inventors have lad benefit from our counsels. More than one third of all patents granted are obtained by this firm. Those who have unade inventions and desire to consult with us ari cor-dialy invit d to do so. We shall be nappy to see them in person, at our office or to advise them by litter. In all cases they may expect from us an honest opinion. For such consultations, opinion, and advice, we make no charge A pen-and-ink sketth, and a description of the invenion should be sent, together with stamps for return postage. Write plainly, do not use pencil in the shorter. All business committed to our care, and all consultations, are kept by us exert and strictly confidential. Address MUNN & CO., S7 Park Kow, New York.

Preliminary Examination.—In order to obtain a Preliminary Examination, make out a written description of the invention in your own words, and a rough pencil or pen-and-mk sketch. Sont these with the tee of ξ_5 by unal, addressed to MUN & CO., ST Park Rew, and an due time you will receive an acknowledk, ment thereof, followed by a written report in regr rd to the patentability of your imployeement. The Pr liminary Examination consists of a special search, which we make with great care, among the models and patentas the Washington, to ascertain whether the improvement presented is patentable.

ment presented is patentable. In Order to Apply for a Patent, the law requires tha a model shall b: furnished, not over a foot in any dimensiona-smaller if possible. Send the model by express, pre paid addressed to Muan & Co. 37 Park Row, New Y Jrk, together with a description of it operation and merits. On receipt thereof we will examine the invention carefully and advise the party as to its natenability, free of charge. The n-odel should be neatry made of any suitable materials, strongly faste ened, with ut gue, and neatry painted. The name of the inventor should by-engraved or painted upon it. When the invention consists of an imprin-ment upon some other machine, a full working model of the whole mache as with not be necessary. Bat the model must be sufficiently perfect to show with clearness, the nature and operay ion ϕ the invention distributions, are paten able. When the invention consists of a medicine or compound, or a new article of manufacture, or a new composition, samples of the article must b fur-nished, neatly put up. Also, send us a full statement of the ingrements, pro-portions, mode of preparation, uses, and merits. Refissures.—A refissure sg ranned to the original pa'entee, his heirs, or the

Interterences, — When each of two or more persons claims to be first in-ventor of thesamething, an "Interference" is declared between them. and a trial is had before the Lorum issioner. Nor coses the fact that one of the par-ties has already obtained a patent preven; such an intrference; ior although the Commissioner has no power to cancel a patent already issued, be may if he finds that another person; was the prior inventor, give him also a patent, and thus place them on an equal footnig before the courts and the public.

83,113 DIAPHRAGM BELLOWS FOR DRY GAS METERA.	dated Sept 20, 1034; reissue 100 330, dated Jall. 8, 1030; reissue No. 2,515, d tea March 19 1867.	and can be renewed on payment of \$10 a year for as long a period as desired
05,115 DIATHRAGH DELLOW FOR DATI ONS METERII.	I claim a rotating pervious cylinder, provided with projecting teeth on the	Quick Applications When from any reason parties are desirous of
Tufis, Malden, Mass. Antedated Oct. 3, 1868. I claim a gas-meter bellows in which one bead is annular, with an attached	inside and mounted substantially as herein described, so as to be sustained	applying for Patents or Caveats, in GREAT HASTE, without a moment's loss
flange, to which the flexible material of the bellows is secured, and in which	and rotated without a shaft and arms, that the inside and ends may be unob-	of time, they have only to write or telegraph us specially to that effect, and
head the opening through which the form r is extracted in parts is closed by	structed for the passage of the stock, substantially as and for the purpose	we will make special exertions for them. We can prepare and mail the
soldering the disk, 1, at its edge which is remote from the C. rd. h, which se-	described.	necessary papers at less than an hour's notice, if required.
cures the flexible material, g, to the flange, e, substantially as described.	And I also Claim, in complication with a pervious lotating cylinder, armed	
	with teeth on the inside, subs antially as described, the means, substantially	Foreign Patents.—American inventors should bear in mind that, as a
53,114.—CALORIC ENGINE.—H. D. Wallen, Jr., Fort Colum-	as described, for the introduction of water through the meshes of the cylin-	general rule, any invention that is valuable to the patentee in this country is
Tous, N. Y.	der to the stock inside, as and for the purpose described.	worth equally as much in England and some other foreign countries. Five
f clo m, 1st. The two Darallel Cylinders, A B, when arranged side by side.		Patents-American, English, French, Belgian, and Prussian-will secure an
and provided at both ends with air-heating chambers, A' A' B' B', and the	FURNACE OR HEAT AND GENERATOR RADIATOR.—Gardner	inventor exclusive monopoly to bis discovery among ONE HUNDRED AND THIRTY MILLIONS of the most intelligent people in the world. The facilities
valve gear to cause the alternate movement and resting of the pisto.is, all	Chilson, Boston, MassLetters Patent, No. 11,718, dated September 26,	of business as a steam communication are such that patents can be obtained
substantially as shown and ce: cribed. 20. The rocks shafts, P P', having srms, e R R', the connecting rods, S S' T,	1854; reissue No 1,782, dated September 27, 1864.	abroad by our citizens almost as easily as at home. The majority of all pat-
and angular hver 1', substantially as herein shown and described in com-	I claim, in combination with one or more tapering tubes, substantially as	en's taken out by Americans in foreign countries are obtained through the
bination with and arranged with relation to the shaft. M, slotted plate, U,	described made to communicate in the fire chamber essentially as specified,	SCIENTIFICAMERICAN PATE AGENCY. A Cicular containing invitier in-
slotted arm, V, and cro sheads, R", as se' forth.		formation and a Synopsis of the Patent Laws of various countries will be
	fire, and made to open near its base in the said tapering tube or tubes, and to operate, with respect to them, and the fire put or chamber and the sur-	furnished on application to Messrs MUNN & Co.
83,115PAPER CUTTER AND KULERS. W. Wilcox, Men-	rounding air or medium to be warmed or heate f, substablially as specified.	For instructions concerning foreign Patents, Reissues, Interferences,
don, Mass.	I also alarm arranging the feed or fire place door within the trank or	Hints on Seiling Patents, Rules and Proceedings at the Patent Office, the Pat-
I claim, 1st, A paper cutter, provided with a series of parallel slits for rul-	mouth piece to the fire pot or place, and so as to operate as specified.	ent Laws, etc., see our instruction Book. Set free by mail on .ppl cation.
ing parallel lines, substantially as herein described,	And in combination with the mouth piece, and the door a ranged in it as	Those who receive more than one copy thereof will oblige by presenting them to their transfer
2c. The construction of a ruler with a perforated scale, substantially as and	specified, I claim the passage in the month piece and its plate, c, for the thin	Adaress all communications to
for the purpose herein set forth.	shee or stratum of air to pass under the door, while it is wholly closed, and	MUNN & CO.,
83.116.—STOP MOTION AND INDICATOR FOR KNITTING MA-	said plate. c. and be heated by contact with the plate before it, the said air,	No. 37 Pa. k Row. New York city
		Office in Washington, corner of F and 7th streets.
CHINEElihu Wilder, Chicopee Falls. Mass.	And in combination with the inclined door of the fire place, the plate, c, and the air passage directly under it. I claim the ledge or flange, a', arranged	
I ciaim, 1st, i be shaft, H, carrying the adjustable fingers, b h' h", substan- tially as described	as described, the same being not only for the purpose of regulating the ad-	Patents are granted for Seventeen Years, the following being a schedule of fees:
" ² d The combination of the holt G with the nawl G' and ratchet G" and		Schedule in rees;
shaft. H. carrying the fingers, h h' h'', made adjustabl , and held in position	and over the plate, c, while the ledge is below the level of the top surface of	On filing each Caveat
by set screws or thumb screws, and operating upon the pawl of a ratchet, for	the place.	Ou issung each original Patent
the purpose of stopping the machine at any number of rounds or statches,	1 aise claim the arrangement of the register hole (viz., in line of or axially	On appeal to Commissioner of Patents\$20
substantially as set forth.	1 with respect to the shalt of the grate), in combination with the arrangement 1	Ou application for Reis-ue
3d, The combination of the shaft. H. baving the adjustable fingers, h h'h"	of the outer end of said shart. viz . entirely within the throat of the ash pit,	On app ication for Extension of Patent
	or in rear of the registry plate or opening as specified, the said arrangement not only emabling me to dispose the grate shaft entirely within the ash pit	On granting the Extension
E, and the cam grooved cylinder, C, applied to a knitting machine, substan- ially as described.	mouth (the end of said shaft, when projecting from the front face of the fur-	On filing a Disclaimer
•	nace, being, generally speaking, more or less in the way, besides presenting	On filing application for Design (seven years)
83,117.—CHAIN PUMP VALVE.—Orrin O. Witherell, Lewis-	an appearance often disagreeable to the eye), but to make the registry open-	On filing application for Design (four teen years)
ton. Me.	ing answer the purpose not only of admitting air to the fire when required.	In addition to which there are some small revenue stamp taxes. Residents
I claim the plates, A B, having the links, DD, secured upon the elastic	but of enabling a person to place a key or crank upon the shaft for the pur.	of Canada and Nova Scotla pay \$500 on application.