Scientific American.

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NEW YORK, FEBRUARY 6, 1858.

Remarks on Commissioner Holt's First Annual Report.

It is with no ordinary satisfaction that we appropriate two pages of this number to the publication of the Annual Report of the Commissioner of Patents. To attempt to criticise this admirable document—so frank, so manly, and so outspoken in the support of the high claims of inventors—would be a work of supererogation. In our judgment, it is above all carping criticism, and at once places the Commissioner in the position of a champion of those rights which he is called upon to foster and encourage.

We republish a single quotation for the purpose of calling especial attention to the just conception which he entertains as to the manner in which the duties of the Patent Office should be administered. In comparing our system with that which prevails in European States, he says : "It eschews that stern, unsympathizing, and distrusting temper which would receive the inventor as a stranger beneath the roof of this magnificent edifice, which has been reared at once as a monument to his genius and as a depository of the trophies of his labors. That better policy, which adopts the happy medium between two equally pernicious extremes, which, while welcoming the inventor as a friend and patron, in that frank and free conference with him enjoined by law, kindly and anxiously sifts from his invention its minutest patentable features, is a policy essentially American in its origin and aims, and must be inflexibly maintained in the administration of this Office, so long as it remains faithful to the high mission with which it has been charged."

Compare this spirit and language with the repulsive, miserable and forbidding system which had possessed the Office previous to the appointment of Judge Mason, and we shall be able to account for the upward spring which has been given to the ingenuity of our countrymen. The murky atmosphere which prevailed in the Patent Office when Judge Mason entered upon its duties was enough to stifle the generous impulses of any ordinary man who had not the nerve and practical ability to apply some judicious system of ventilation. He susceeded, and before he left the Officeregretted by all-most of the rough corners were knocked off, and the inventor is now received beneath the roof of the Patent Office as a friend and patron in frank and free conference.

This system has been most happily extended by Commissioner Holt, and yet in spite of his endeavors to render the Patent Office the friend instead of the enemy of the inventor, he has met with a sullen, mulish opposition from certain quarters where he had a right to expect encouragement and support. His policy has been scouted, and efforts are working to subvert it, by an under current of opposition too cowardly to show its hand in fair and open warfare. Instead of a system of mutual conferences, designed to carry out the wisest and best measures to encourage the progress of invention-and which should prevail in the Patent Office-would-be-wise men are planning a breakwater to check its uninterrupted flow, and are endeavoring to hedge it in by the old system of mismanagement and illiberality which has so nearly met its death.

In the exercise of that sound discretion which rests in him, Commissioner Holt has already commenced the removal of such subordinates in the Office as are known openly to oppose his comprehensive policy. In this course he will be sustained by an enlightened public judgment; and we hope it will be carried on until the Office is thoroughly purged of this refractory element, and the Commissioner's policy fully vindicated.

We cannot now spare the space necessary to the full discussion of this subject, but we in-

tend soon to refer to it again, and will then endeavor to show from what sources the opposition springs. It has only two heads, but the sooner they are lopped off, the better. We now say, unequivocally and unqualifiedly, that, in our intercourse with inventors and the public in respect to patents-and we venture to assert that it is more extensive than that of any other establishment, save the Patent Office itself—not one word or syllable has ever been written or uttered in our hearing, condemnatory of the liberal spirit which Commissioner Holt is endeavoring to establish. We therefore know that he is right; and we urge him, by every consideration of duty and policy, to go forward !

We solicit a careful examination of this admirable report, believing that its spirit and language will give general satisfaction.

Sugar Canes and African Imphee.

At a recent meeting of the United States Agricultural Society, as noticed by us in our last number, Mr. Leonard Wray, an English gentleman who has seen considerable of the world, having lived for several years in the East Indies and in South Africa, brought up the subject of the African Imphee. This plant resembles the Chinese sugar cane, and he asserts that it is the parent of the latter, having been caried by the Portuguese, in the palmy days of their kingdom, from Africa to China, and there cultivated. While living in Port Natal, he found it growing wild around the huts and in the fields of the Kaffirs, (who merely sucked it for its sweet taste) and was induced to try a series of experiments with its juice, as he thought it might yield sugar. In this he was successful, and collecting a considerable amount of seed, he then sailed to Europe, being convinced that it could be cultivated in temperate climates, and sugar raised profitably from it. In France he obtained a silver medal, at the Exposition Universelle, for the specimen of his sugar and cane seed : and at the invitation of Governor Hammond of South Garolina, he came to the United States, in April last year. All the seed of the Imphee which he brought with him was planted on the Governor's plantation, and from choice selections about four hundred bushels of new seed have been saved. In a letter recently written by Governor Hammondwho is a thorough and enterprising agriculturist-he says, "I think this seed well worth distributing. They produce a sugar cane at least equal to the Sorgho in all respects, and some of them are twice the size. I am inclined to think, we shall ultimately find several of them (ripening at different periods) superseding the Sorgho altogether. I plant this year (1858) 60 acres, 4 of Sorgho, the remainder of Imphee."

We really hope that the Imphee is a superior sugar producing plant, and that either from it, or the Sorgho, sugar may be manufactured with profit. We caution our farmers, however, in every section of our country, not to get so excited on the subject as to enter upon the very extensive cultivation of these plants, in the hopes of making fortunes by engaging largely in their culture-let them be *generally* but not too extensively cultivated. If these plants are adapted to our varying climates, and if sugar can be made from them so as to be sold at remunerating prices, steady and cautious experiments will be more likely to establish their success than hasty and excited efforts.

Weatherology-Vegetation-Gulf Stream.

The mild and beautiful winter weather in this section, to which we have already alluded in a former number, has continued up to the present period. In the parks and gardens, trees and shrubs have budded and thrown out leaves. Probably we shall yet have frost to cause them injury, but the spring will call them forth to bud and bloom again. Fears have been expressed regarding the killing of the winter-wheat by its exposure to frequent frosts and thaws, it not being covered with its usual warm mantle of *cold* snow. We would advise our farmers to go over their

wheat fields with rollers in the spring, so as to press down all the roots of the grain which may be thrown out of the soil. This practice is pursued regularly in England, where the winter seasons are similar to our present one. Our farmers should also take measures for sowing spring wheat in situations where the winter kind may be kille?

This surprising mild season has exercised the fancy of some of those learned pundits who are always so ready to advance reasons for things which neither themselves nor anybody else understand. They assert that the recent warm weather has been caused by the Gulf Stream flowing about fifty miles nearer our coasts than formerly, according to the reports of some sea captains. It is well known that this wonderful stream does flow nearer the coast some seasons than others, and it may be the case this winter ; but, while this would undoubtedly influence the atmosphere on the Atlantic coast, it never could affect that beyond the Alleghanies, in Canada, or the West and Northwestern regions, where the thermometer has been seldom much below the freezing point this winter, whereas it was thirty and forty degrees below it the last one. It is folly to pretend to be wise beyond actual knowledge. No person really knows why there are such variations in the seasons. Observers may yet detect causes, and science arrange the weather influences, but at present weatherology is very far from being reduced to a science.

Harbor Navigation and Dirty Streets.

The engineer-Charles H. Haswell-of the Board of Underwriters in this city has presented an interesting report in reference to the condition of our harbor. In it he sets forth the danger to be apprehended of the channel growing so shallow that its navigation, at some future day, not very far distant, may be stopped, and our great commercial mart become desolate and forsaken by its thrifty merchants, and those who go down to the "great deep" in ships. It is complained that the vast amount of gravel, sand and filth, washed down from our dirty streets through the sewers, is one great cause of the evil; these being deposited in the channel, thus tending to shoal it up. In the main ship channel 2,532,000 cubic feet of sand have been deposited in twenty years.

Great quantities of mud are deposited from the water in our city docks; this is lifted by dredging machines, but the practice of removing it has simply been to carry it away on *punts* and dump it in the lower part of the channel, from whence it is brought back again by returning tides. This operation forcibly reminds us of the wisdom displayed by that Gothamite who employed the effectual method of destroying a hornet's nest in his barn by setting the building on fire.

It is recommended as a remedial measure that the streets of the city be kept very clean, and that the dredged mud from the docks be removed in the *punts*, and be wheeled on shore to fill up low lands adjacent to the rivers or harbor. The remedial measures proposed must meet the approval of every person, without any reference to the probable shoaling up of the main ship's channel—an event which we think is very far distant.

The Boston Steam Yacht.

It is acknowledged that the steam yacht Voyageur de la Mer, built at Boston for the Pasha of Egypt, has proved a failure. About the why and the wherefore of this, there are sides to the story. One side is that failure was caused by defective boilers, which were made in New York: the other side is. that it was owing to defective machinery, which was built in Boston. A correspondent from Medford, Mass., who is a ship-carpenter, informs us that the model of this vessel is good, having been drafted by Samuel Pook, Naval Architect, Boston, but that both boilers and machinery are defective. We sincerely regret that any vessel built in our country for a foreign potentate or plebeian should (as in this case) have tarnished the reputation of

Application for Patent Renewals. Truss Frames for Bridges.—C. & T. W. Pratt, of Newton, Mass., have applied for an extension of the patent granted to them on the 4th April, 1844, for the above invention. The petition is to be heard on the 22d of March next, at the Patent Office.

Hay Presses.—Joseph Eaton, administrator, applies for an extension of the patent of Charles F. Paine, deceased, for a hay press, granted April 25, 1844. The petition is to be heard on the 19th of April next, at the Patent Office.

Lock Gate.—Henry McCarty, of Pittsburgh, Pa., has applied for the extension of his patent for "suspending, opening and closing lock gates," which expires on the 16th of March next.

Persons opposing these extensions are required to file in the Patent Office their objections specially set forth in writing, at least twenty days before the day of hearing: all testimony filed by either party, to be used at the said hearing, must be taken and transmitted in accordance with the rules of the Office which will be furnished on application.

Terrible Stcamboat Explosion.

The steamer Fanny Fern, bound to St. Louis from Pittsburg, exploded her boiler eighteen miles below Cincinnati on the 28th ult. Fifteen persons are reported to have lost their lives, and thirty were severely injured; the boat was set on fire by the explosion, and burned to the water's edge. This is the most severe accident of this character, we believe, which has taken place on any western river since the new law for protecting life in steamers went into force. We are afraid that the western steamboat inspectors are becoming somewhat careless; and we have good reasons for believing that is also the case with those in the eastern districts. We exhort these officers to look well to their regulations, or they may soon find their situations too hot for them.

A Question in Patent Law.

MESSRS EDITORS :—As there are no lawyers here who are acquainted with Patent business, I wish to enquire if a man is not liable in an action of damages, in the Supreme Court of this State, for making a patentedarticle when it is his intention to sell the same, even though he sells to those who own territory? Or suppose I own a county right to make and sell, can any other make in said territory and sell to others out of said county or in it? Please answer through the SCIENTIFIC AMERICAN. A. S. RICE.

Waverly, N. Y., Jan. 27th, 1858.

[The Supreme Court of the State of New York has no jurisdiction in patent cases. Suits for damages can only be brought in the United States Courts. A patent is the monopoly of the right to make, sell and use the article secured by the grant of Letters Patent —therefore no one can manufacture a patented article upon territory owned by another without infringing the right of the latter.— Eps.

Activity among Inventors.

During the week ending Saturday, January 30, we filed into the Patent Office from our New York Office, *twenty-six* applications for patents, exclusive of those presented through our Branch Office at Washington. This is a cheering proof of the impetus which has been given to inventive skill by the frank and generous encouragement extended to inventors at the Patent Office.

The special correspondent of the New York *Tribune* announces the removal of Dr. Everett from the position of Chief-examiner in the Patent Office—a post he has long filled. The reason assigned is "for preparing a patent bill restricting the sphere of the Commissioner."

See advertisement of Luther Tucker & Son in another column. These veteran publishers of agricultural works are sure to offer something valuable in that line.

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Issued from the United States Patent Office FOR THE WREE ENDING JANUARY 26, 1858.

[Reported officially for the Scientific American.]

POTATO PLANTEES-J. R. Albertson, of Allegheny, Pa.: I claim the arrangement of belt, Z, and fingers, f, with rods, r, and hopper, h, in the manner and for the purpose described.

PLOWS-Joseph Banks, of Dadeville, Ala. : I claim ne combination of the triple-branched coulter, I, bars, G H, and point, L, constructed and arranged as spo-

Rotary Pumps-J. S. Barden, of New Haven, Conn.: I do not claim a rotary pump constructed with a cylin-drical case, an annulus or ring piston, and a wing or slide either hinged or fastened firmly to the piston, and made to slide through a rocess in the edge of the case, the said ring piston being moved around in the case by an eccentric pla ed within such piston, this principle of construction being common to the pumps or propellers, described in the specifications of the United States Pat-ents numbered 13,979, 14,599, and 18,814, and also in the slyceifications of several foreign patents. But what I do claim is the above described applica-tion or arrangement of the reciprocating cylinder, D, and its claimber, C, with the case chamber, B, the in-duction opening, d, and the slide wing, E, fixed perma-nently to and so as to vibrate with thering piston, and slide up and down in accordance with other movements thereof, and have a water passage through it, as speci-fied.

Thereof, and have a waive to be a set of the induction and educ-if and in a set of the set of the induction and educ-tion passages in the slide wing, as this is shown in the pumps described in the said patents, 13,979 and 14,599. But I do claim arranging one passage only in the slide wing, and the other in the reciprocating cylinder, D, or through the case as specified.

Unrough the case as specified. WASHING MACHINE--Nicholas Bennet, of New Leba-non, N. Y., assignor to David Parker, of Shaker Vil-lage, N. H. : I claim the arrangement of two or more washing chambers, with a traveling frame carry ing two or more rubbers, one for each chamber, said traveling frame resting on, and supported by the sides of the washing several kinds or qualities of clothes at the same time, without allowing the sude or water in one chamber to flow, or be dashed over into the next one to it, as described.

PEPTER-BOX-Edmund Brown, of Lynn, Mass. : I claim making a spice and pepper box air-tight and self-closing, substantially as described, and for the object specified.

MACHINERY FOR OBTAINING AND PRESERVING POWER FROM TRAINS WHILE PASSING RAILWAY STATIONS-E. T. Russell, of Shelbyville, Ind. : As I am well aware that there is no noveity in running machinery by Weight, no claim is laid on blatscore. But I claim the catching or swing of power from a train of cars in its flight through the curved planes, 6 6, and the appended mechanism, or any other equivalent device, substantially as set forth.

APTARATUS FOR DYEING YARNS IN THE SKEIN-M. APTARATUS FOR DYEING YARNS IN THE SKEIN-M. Delany, of Clinton, Mass. : I claim combining with the vat, A, and the movable frame, B, two series of sup-porting rollers, K K K L L L, the pressure rollers, I J, and the key shafts, C'C', and their gears or mechanism for rotating such supporting rollers when the ske ne are lowered into the yats, the whele being made to operate together, substantially as described. I also claim combining with the supporting rollers and their sustaining frames, the mechanism for separating the skenus or keeping them separate, and from over-riding one another while they are in revolution. I also claim the mode of constructing such skein sepa-rating mechanism, viz., of a combination of crossed lovers, and two slide frames arranged so as to operate together, substantially as a set forth. I also claim the mode of making the dipping frame, viz. of a frame, B, and two twining frames, M, ap-pied so as to operate together, substantially as de-scribed.

GAS HEATING APPARATUS—P. S. Devlan, of Cam-den, N. J. : I claim the arrangement of the tank, gene-rator and radiator, with each other, and with a gas burner, substantially as set forth, and for the purpose of making a gas heating apparatus for warming rooms, chambers, &c., as described.

chambers, &c., as described. RAILBOAD CAR COUPLING-G. W. Doolittle, of Rich-field Springs, N. Y.: I do not claim as new the general form of the building frame, as shown and described, nor do I claim the use of the draft link of the plainform as here used, as these are now in common use. But I claim the mode I have described for inserting the draft bolt, and catching the link, while the operator is standing on the platform, as woll as the mode of lodding the holt down by the clasp, h. beneath, while drawing, as is also described. I also claim the mode of releasing the hold on the draft bolt which I have de-scribed, by the self-operating agency of the pin, V, and the thumb-piece, w, acting as a self-uncoupler as de-scribed, the whole being combined and arranged sub-stantially as set forth.

MUSICAL WIND INSTRUMENTS—C. H. Eisenbrandt, of Baltimore, Md.: I claim the construction and arrange-ment of wind musical instrument by the addition of compensation sliding extension crocks or curved tubes, $D \in F G$; the auxiliary transition valve, II, the key-bar, L I, the secondary keys, M N, the connection ac-tuating rods and arms, $O \neq Q R S T \cup V$, together, and in combination with the valves, tubes and pipes, sub-stantially as set forth, shown and described.

CURRY-COMES-E. L. Evans, of Providence, R. I. : I do not claim separately the flexible back, A. But I claim constructing the eurry-comb with a fiexi-ble back, A, formed of india-rubber, and flexib e teeth a, formed of the same mrterial as the back or other pli-able or flexible substance which may be monided with the india-rubber, substantially as shown and described.

[In a former patent the inventor formed the backs of curry-combs of india-rubber, with metallic teeth. This patent is for forming the whole, teeth, handle and back of india-rubber or other plastic substance, so that the whole is flexible and much more efficient.

MACHINES FOR PLOWING-J. W. Fawks, of Chris-tians, Pa.: I claim the employment of the barrel-shaped wheel or driver, E. constructed with spurs, K K. in the manner described in combination with guiding wheels, C G, and screw, D, and segmental rack, b, for the pur-pose of drawing the plow frame and plows described in the manner set forth in the specification.

the manner set forth in the specification. MANNG BROOMS-Thomas Floyd (assignor to himself, D. K. Wunderlich, and B. F. Nead), of Chambersburg, Pa. : I do not claim clamp plates, stamped up of sheet metal, as this is not new. But I claim the cast metallic clamp plates, B, with points d, between which is placed and compressed the material used, by means of the bolt and screw, b, which passes through the plates and material, and which is firmly secured by means of said boltand screw, as de-scribed, and for the purpose of making brooms or brushes, without sewing as set forth.

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BLADES FOR PANOIL SHARPENERS—W. K. Foster, of Bangor, Me. : I claim for supporting small pieces of metal, and aiding in their reduction to wedges or knife-blades, under the action of a grinder or grinding wheel, a gage bed plate or holder constructed with recesses made so as to operate substantially as described, such bed being moved along under the grinder, or the grinder moved over it in such a manner as to succes-sively reduce each of the blanks that may be within its recesses.

recesses. RAILEOAD CAB BRAKES-Samuel Gumaer, of Chicago, II.: I disclaim all combinations of shoes and rubbers for breaking upon both rail and wheels, when such combinations are designed and arranged to act either simultaneously or first upon the rail. I also disclaim all shoes acting rigidly upon the rail as forming no part of my combination. I further disclaim the use of cams in applying brake rubbers. But I claim the loosely hung rubbers and spring bot-tomed shoe, connected as described in combination with the tri-branched ean, when the lower toe of the cam acts upon the spring, and the said parts are all rela-tively so arranged that the rubbers are applied to the wheels prior to the application of the shoe to the rail, substantially as and for the purposes set forth. Device For Supervise rue Ta-

DEVICE FOR SHIFTING THE BOLT TO EFFERT THE TA-TER IN SHINGLE MACHINES-W, D. Guseman, of Mor-gantown, Va. : I claim the rocking pieces, N N, with their adjustable tongues, u u, and boxes, m m, for forming a bed to receive the bolt, and reverse its in-clination, so as to cut off the shingles' butt and point, and adjust their taper and thickness, as set forth.

Pug MILLS-James A. Hamer, of Reading, Pa. : I am aware that screws of different kinds have been used for tempering and carrying clay luto brick machines, I therefore do not claim the screws separately. But I claim the arresting plungers or their equivalent in combination with the screw, the whole being con-structed and arranged for operation in the manner and for the purpose set forth.

MacHINES FOR PLANNG AWAY IOE IN RIVERS-R. W. Heywood, of Baltimore, Md. : I claim. first, The bevel-edged plane irons, E, connected with the series of grooving beveled cutters, C C, for the purpose of groov-ing and planing away ice on navigable waters, substan-tially as set forth. Second, The peculiar arrangement consisting of the adjustable standards, D D D', pulleys, i, endless chain, I, Pin, pinions, ff, crank shaft, K, in combination with the ice-grooving and planing mechanism, substan-tially as and for the purposes set forth.

TIDAL ALARMS—A bel Hildreth, of Thomaston, Me.; I would remark that I am aware that a fog beilhas been sounded by a striking apparatus whose motive power has been obtained by the tidal movements of a float, therefore I do not claim such as my invention. What I claim is my improved tidal alarm, construct-ed with the two windlass barrels, the ratchets and pawls, the reversing chains and weights, and the two float chains, arranged and applied in connection with the striking mechanism, and the float and its stem or rod so as to operate therewith, substantially as de-scribed.

HEATERS OR COOLEES-J. C. Hoadley, of Lawr Mass. I claim constructing heaters or coolers by i ung the tubes, tube sheets and case thereof of hon neous metal and without joints uniting said parts.

CORN PLANTERS-P. C. Mosier. of Homer, Ill. : I claim the beam, A, when shaped, as specified, and pivoted to the axle, C, by its for ward end, and has its rear end which carries the tubular furrow opener cov-ering shares, seed hopper, and driver's seat, arranged to run directly upon the ground, substantially as and for the purposes set forth.

for the purposes set forth. SHINGLE MACHINE—Elijah Morgan, of Morgantown, Va. : I claim, in combination with the traversing car-ringe, G, the horizontally semi-rotating piece L, with its flanges, m n, and m'n', operated in the manner and for the purpose set forth. I also claim, in combination with the carriage, G, the auxiliary carriage, H, when made susceptible of adjust-ment as set forth, for the purpose of changing the line or angle at which the bolt broughtagainst the saw, as described.

STRAW CUTTERS-J. H. Mumma, of Harrisburg, Pa. : I olaim the arrangement of the feed rollers, e ø, oper-ated on by tappets, o o, crushing cylinder, d ď, pro-vided with gum springs, n n, cutter bar, g and h, and cutter, 11, substantially in the manner and for the pur-poses set forth.

TANNING LEATHER-B. G. Noble, of White Water, Wis. : I am aware that sulphate of soda, chloride of so-dium, alum and nitric acid, have been used in different proportions and combinations in other processes of tan-ning, and therefore I do not claim their use in any manner differing substantially from my own. But I claim the fixing bath composed of nitric acid and glycerine diluted with water, in the proportions specified, or therehouts, and employed substantially in the manner set forth.

RAILEGAD CAE SPRINGS-Henry Waterman, of Hud-son, N.Y. : I claim the combination of a series of bars or leaves of steel, as specified, with the end bearings, d d, and distributor, b, or their equivalents: substantially in the manner et forth.

COTTON PRESS-D. G. Olmstead, of Vicksburg, Miss.: I do not claim the employment of a fusee wheel, single or double, for the purpose of pressing. But I claim providing the fusee wheel with holes or equivalent means of attachment at intervals from end to end of the fianges thereoi, so that the leverage of the press may be readily varied when desired, substantially as specified.

STRAN THEOTTLE VALVES—J. W. Osgood, of Colum-bus, Ohio : I claim the plate, J, and rocker, K, ar-ranged in connection with the performated valve east. H, operated substantially as described, for the purpose of increasing or diminishing the area of the steam pas-sages in the valve seat.

RAILROAD CAR COUPLING-John Pearson, of Ster-ling, Iowa: I do not claim the use of a single spring link as a coupling. Nor do I claim draft pieces held together by an ex-

Not do I claim drait pieces held together by an ex-terior spring. But I claim the combination link made up of the spring, c. bent as specified, iron piece, a, and arms, b b, connected therewith by interior projecting points, as described, when used in combination with the levers, h, and pins, i i, substantially as and for the purpose set forth.

HEEL SPUR TO PREVENT SLUPPING ON ICE-Horatio Pollard, of Boston, Mass. : I claim the combination of the screw socket and screw stud, or spur, as described, and for the purpose specified.

LANDIDWO Jeach U Doigh LANTERRS-Jacob H. Reighard, of Birmingham, Pa.: I claim attaching the top and bottom trimmings of lan-terns to the globe by means of lugs, fitting on a bead around the upper and lower neek of the glass globe, so that they may be more readily attached or removed, or a new globe inserted when necessary, in the manner described.

PARLOCK-John Schneider, of Chicago, Ill.: In pad-locks wherein the bolt is shot through the staple of the shackle by the direct action of the shackle itself, I claim ine peculiar mechanism described, consisting of a bolt and tumbler rotating upon a common sationary spin-dle, in combination with an auxiliary trigger, the said parts being constructed, arranged and operating in con-nection with each other, in the manner substantially as specified.

specified. APPARATUS FOR TANNING SKING-C. A. Shaw and J. Clark, of Biddeford Me. : We make no claim whatever to the invention of Wattles, as patented by him May26, 1867, or any part thereof. We claim the use of the horizontal movable frame rode or sticks, c c c, the toothed bars, m m m, and the rosts, d d d, or their equivalents, for the purposes set forth and specified.

PREPARING MASH FOR DISTILATION—George Seitz, of Easton, Pa. : I claim at ceping or infusing the maize and rye or other grain or malt separately, so that each may be subjected to the degree of temperature neces-sary for the proper separation or dissolution of their parts, and then uniting or mixing the two infusions, substantially as and for the purpose set forth.

[Two mash tubs are provided, the one raised above the other, and each is furnished with rotary mixers, so that when they are both thoroughly digested, they can be mixed in the bottom tub.]

be mixed in the bottom tub.] HYDRANTS-W. Race and S. R. C. Mathews, of Seneca Falls, N. Y. : We do not claim, broadly, for we are raware that hydrants have been constructed, and their parts arranged in various ways, so that they could be removed/for repairs without excavating, the parts being rendered capable of being withdrawn from the case. But we are not aware that an arrangement like ours has ever been used for effecting the purpose. Neither do we claim the casing of hydrants, when the case and base or pipe. D, are in one piece, and perma-nently attached to the pipe from the "main," as that has been previously done. Neither do we claim, separately, the arrangement of the valves, B'G. But we claim, first, The annular valve, B', and the disk valve, G, attached to the rod, C, in combination with the escape or leak-opening, j, and seat. F, the above partsbeing arranged to operate as and for the purpose set forth. Second, The combination of the case, A, induction pipe, D, provided with fianch, K, and the jacket, E, when arranged as hown and described, to effect the desired end, to wit, the ready removal, when necessary, of the case and working parts of the hydrant forre-parts.

(This hydrant contains certain improvements, by whose means the valve rod can be operated without removing the cap, the waste pipe or orifice is opened as the induction pipe is closed, and vice versa, and the parts are so arranged that the hydrant may be readily detached from its base, for cleaning or other purposes, without any excavation.]

GALVANC BATTERY-Ebenezer Seaver, of Boston, Mass. : I claim the employment of two or more porous cups, the one within the other, in the manner and for the purpose substantially as set forth.

RAEING AND BINDING DEVICES FOR HARVESTERS-Allen Sherwood, of Auburn, N. Y.: I claim bending the grain by means of the wire, Y, placed on a spool or pulley, J, and carried partially around the grain by the hooks, g, of the arm, M, the hooked arm being used in connection with the stationary fork, n, and the rotating forks, m m', and cutter, I, said parts being arranged to operate in relation to each other, as shown and de-scribed.

(With this attachment, and the aid of an assistant, e grain can be gathered into sheaves and bound just at the same rate at which it is cut by the harvester.]

at the same rate at which it is cut by the harvester.] NITPLE GUARD OF FIRE-ARMS-David W. Smith, of Boston, Mass. : I do not claim applying a cover guard to the percussion nipple. Nor do I claim applying the cover guard directly to the lock, so as to turn on a pin or fuldrum pro-jecting therefrom, and operating and throwing up the said guard by a lever separate from it, and actuals do or moved by a cam on the lower part of the hamme ror concerned by a cam on the lower part of the hamme ror concerned and operating the cover guard to the lock in manner, and operating it by means substantially as de-scribed, that is to say, by jointing the cover guard by means of the tongue, k, and the lever, in connection with the arm, d, or is equivalent, extending from the cock or hammer, substantially as described.

cock or hammer, substantially as described. WATEL-WHERL-Frederick Smith, of Buffalo, N. Y.: I do not claim, broadly, admitting air into the bucket case to secure the full percussion, reaction, and free dis-charge of the water, irrespective of the peculiar manner in which the air is introduced, and the peculiar manner in which the air is introduced, and the peculiar con-struction of wheel in connection with which this princi-ple is employed. But I claim the peculiar construction, arrangement, and combination of the hollow perforated vertical shaft, C, radial and spiral buckets, A, B, and the scroll and cylinder case, D. E, whereby the two actions of the water, to wit: the full percussion and the full reaction are employed in the same wheel, without one interfer-ing with the other, and whereby also a continuous draft of air is admitted into the bucket case a boove the water, so as to fill the vacuum or space between the water and perforated chaft, and the force and gravity of the water in its reat ion thereby greatly increased, and a free discharge secured, substantially as set fortil. [By this improvement the water enters the scroll, and [By this improvement the water enters the scroll, and

acts with its full percussive force upon the radial buckets, then glides smoothly onto spiral buckets, and gives a full reaction force, aided by the pressure of air above, which is induced to enter the bucket case through a hollow central shaft, by the suction of the buckets, and a vacuum existing between the water and the hol-low shaft. The water having performed its full duty discharges through the bottom of the cylinder, without having had its course reversed after it gave the first stroke, which result, it is believed, has never been attained so perfectly, owing to the fact that in all instances where the two actions are combined, the buckets are more contracted at the point of discharge than at the entrance, which defective construction tends to kill the percussion stroke by causing the water to strike into a solid body, and then to force itself through the contracted part of the buckets.]

CANVAS SHEETS CONNECTED WITH LIFE-PRESERVING RATTS-LOTENZO TARGERT, Of Philadelphia, P.a. : I do not claim the formation of rafie by the union of water casks, or other buoyant articles. Nor do I claim using casks partially filled with water. I claim using casks partially filled with water, y considered.

separately considered. But I claim the canvas sheet provided with tubes, a, and serving the double purpose of awning and water receiver, and connected with the raft, substantially as set forth.

set forth. WEATHER-STREP FOR DOORS-Joseph Tinney, of Westfield, N.Y.: I am aware that weather-strips have been constructed with diagonal slots, taking plus in the door, in such a manner that an endwise motiongiven by shutting the door causes the strip to press against the sill or casing, but such I do not claim. Nor do I claim the employment of grining differently arranged, and otherwise combined, for giving a ielding or elastic pressure to weather-strips. But I claim the employment of curved slots in weather-strips, with upwardly curved or covex springs or bearings on the lower side thereof, substantially in the manner and for the purposes specified. AREANGEMENT OF PASSAGES AND VALUES FOR

ARRANGEMENT OF PASAGES AND VALVES FOR CUSEIONING THE PISTON OF STRAM ENGINES—NOTION W. Wheler, of New York City: I claim arranging the check valves in the steam pasages for custiconing the piston and balancing the steam valves with steam taken from Dehind the piston, substantially as set forth.

HARVESTERS-Samuel W. Tyler, of Greenwich, N. Y.: I claim the sliding head-plece, a, to which the in-ner end of the fingor bar is hinked, in combination with the lever, h and m, the movable standard, d, the pendulous lever, e, and driving wheel, A, when the said parts are arranged for joint operation in the man ner and for the purposes set forth.

CORN HARVESTERS-L. C. Wilder. of Lexington, N. C.: I do not claim, separately, or in themselves con-sidered, any of the described parts. But I claim the combination of the oblique reciproca-ting fianched cutters, V V, feedrollers, I. L, and tilting platform, H, arranged to operate substantially as and for the purpose set forth.

[This harvester has a projection on each cutter, which tilts the stalk on to a tilting platform when cut, and when the driver wishes, he can, by means of a lever, tilt all the stalks off the platform.]

tilt all the stalks off the platform.] SEED PLANTERS-J. D. Willoughby, of Pleasant Hall, Pa. : I claim first, The rubber spring, u, in combination with the chair, D, screw, T, and nuts, v, to hold the joint, c, in any desired position with any desired firm-ness, for the purpose of making bar S, a jlexible and ad-justable brace for grain drill tubes or showcis, which can be graduated to bear different de grees of resistance, and to hold the tube, G', at any desired angle, to regu-late the depth of the tube in the soil, when the seed is being planted. Second, The combination of the rod, g, with the in-clined standard, D, on the pole, for the purpose of cut-tug off the discharge of the seed, and elevating the seed tubes and cleaners, substantially as described. DAUBON CALL PRAYS. George W. Winderr of Al-

RAILROAD CAR BRAKES-George W. Windsor, of Al-legheny, Pa.: I claim the use of a brake constructed as described, and operating at the will of the brakesman, by means of levers working in the threads of a screw cut on the axie of the car or locomotive whecis, to pinch the rails on which the wheels travel, and thus re-tard the progress of the cars.

HYDRAULIC ENGINE—James S. Groynne, of New York City, (assignor to Samuel Nicolson, of Boston, Mass): I claim applying and arranging the roller passage, b, the roller, D, and the cam piston, B, together, and in the case, A, in such manner that a liquid, when ex-pelled from the pump, may pass out through the said roller passage, b, as described. I do not claim the combination of an air vessel with a nump.

I do not claim the combination of an air vessel with a pump. But I claim the airangement of the closed air vessel, G, on the case, A, and in respect to, and so as to operate in connection with, the opening, b b, and the roller, D, of the said case, or serve not only as an air vessel, but as a receiver and guide for the roller, substantially as set forth

REEPING TOP-SAILE—Donald McLean, of Boston, Mass., (assignor to himself, Samuel Green and Nathan Ames, of Sangus, Muss.): I claim the arrangement, substantially as described, of the revolving jack-yard, B, and the reef lines, C, whereby the sail is refet dby simply doubl ng overitself, instead of being rolled or that wo tied up.

WINDOW SHADE FIXTURES—Charles S. Schleier, of Brooklyn, N. Y., (assignor to John H. Bonn, of Wee-hawken, N. J.) : I claim'as an improved article of manufacture, a window-shade fixture having the swivel pulley, A, atlached to the screw rod, c, which is fitted in or passes through the nut, D, on the plate, E, sub-stantially as described, and for the purpose set forth. (This is described, and for the purpose set forth. [This is described and illustrated in another column.]

[This is described and illustrated in another column.] SECURNG OF STRATS UPON BOOT LEGG-L. J. WOR-den, (assignor to himself and Edwin L. Swartwort,) of Uika, N. Y. : I am aware that metal plates have been used for fastenings in various ways in the construction of harnessee, carpet bags, book claspe, and the like, by plate by the use of separate rivets, and that boot straps and leafther belting have been fastened by riveting on the parts together by the use of separate rivets; I do not, therefore, claim any such devices. But I claim the fastening of straps upon boot legs by the use of the toothed clasp, A, as I have described if, formed of a simple flat piece of cheet metal with the points or teeth by which it is fastened, punched or pro-jected from the plate by the use of a punch, die, or other equivalent means, which, being angular in their shape, and pointed, are at once a subscitute for the separate nall or rivet, and caspable of being driven through the leather and casily clenched on the opposite side. BE-IBSUE.

Bide. EE-16SUE. MACHINE FOR NUMBERING THE PAGES OF ACCOUNT BOOKS-John McAdams, of Boston, Mass. Patented August 12, 1851: I claim the mode of arranging and operating the numeral types for printing the pages of the whole book, substantially as described, to wit: ar-ranging the types of the several numbers, from 1 to the bigiest number required, in a serial order, in one or more continuous lines, one behind another, and bring-ing them up successively and separately to the point of impression, so that the type of each number is indepen-dent of all others, and used alone, and but once in the paging of the whole book, and all odiers are out of the way; and this I cleim, whether said types are fixed in a claim or chains, or in any other manner by which they are arguet of operation is obtained. I also claim arranging the two type chains, or con-tinuous lines of type, parallel with each other, at a pro-per distance apart, and with the type in proper serial inder, and operating the same simultanceously, substan-tially as described, to print the numbers of two pages and of a heet. I further claim the arrangement of two pairs of type RE-ISSUE.

simultaneously on the two opposite corners of the same side of a sheet. I further claim the arrangement of two pairs of type chains, or continuous lines of type, substantially as de-scribed, to print the numbers of two pages on each side of a sheet while the sheet is passing once through the machine.

[This machine will page sheets of paper in colored ink, and in the proper place when fed to it, giving each sheet its proper number, increasing one number for each sheet, exactly in the co rect order. These paging machines save a great amount of time, and are reliable and accurate.]

ADDITIONAL IMPROVEMENTS.

ADDITIONAL IMPROVEMENTS. COVERING FOR DRAWING ROLLS-JOSEPH M. Smith, of Manchester, N. H. Patent dated.uly7,1857; I claim the employment of gutta perchain combination with black lead as a material for draft rolls, as set forth.

MILL-STONE DRESS FOR HULLING RICE-Charles R. Barnes, of New York City. Patent dated February 20, 1855 I claim the bed-stone, with radial and curved furrows, as specified, when combined with a runner-stone having the curved furrows, substantially the same as in the before-mentioned Letters Patent before-mention

---Literary Notices.

THE BIRLIOTHECA SACRA-The number of this able theological review for this quarter, published at Ando-ver, Mass. by W. F. Draper, contains an essay on Dr. Arnold's theological opinions, and eight other cosays or reviews on various interesting subjects, all character-ized by the usual profundity and ability which distin-guishes this periodical.

THE ECLECTIC MAGAZINE for February has been re-ceived, and it contains, as usual, the cream of the for-eign journals. We have also received the "Knicker-bocker Magazine," each new number of which keeps up its old reputation.

THE PHOTOGRAPH AND AMBBOTYTE MANUAL-By N. G. Burgess: Wiley & Halsted, publishers, New York. The fourth edition of this valuable little work has just appeared, and we can recommend it to all who do, or who would, preserve the scenes and faces which they ad-mire, by the aid of the photographic art. 9

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