

51,774.—Apparatus for Graining Wood.—Robert A. Adams, Chicago, Ill., assignor to himself and Edwin Lee Brown, of the same place. Antedated Dec. 13, 1865.

First, I claim the hollow elastic air bag or drum to be used in a graining machine, in the manner and for the purpose substantially as above described. Second, The combination of the said endless graining belt and elastic air bag used and operating for the purpose and in the manner substantially as above described.

Third, The device substantially as described for inflating and collapsing the hollow bag or drum by means of the hollow axle and valve. Fourth, The device substantially as described for regulating the width of the hollow bag or drum by means of the packing box, axle and set screw.

51,775.—Method of Preventing Incrustation in Steam Boilers.—Wm. Brown, Morrison, Ill., assignor to M. G. and F. H. Jacobs, of the same place.

First, I claim in the construction of the filter the space left above the tops of the partitions, F G and H, and the cover for the free passage of steam from the cylinder into the filtering compartments, B C and D, for the purpose of heating the water, as herein set forth and described. Second, I claim the application of hay as filtering material to be put into compartments B C and D, for the precipitated lime to adhere to, as and for the purposes herein set forth and described.

51,776.—Manufacture of Lenses for Spectacles.—Charles Buckley, West Meridian, Conn., assignor to Charles Parker, of the same place.

I claim forming the lenses by casting the blanks therefor in molds which will give to the edge of the blank the exact form and finish which it is desired that the edge of the lens shall have, and finishing the lens by grinding and polishing the faces of the blank, substantially as set forth.

51,777.—Animal Trap.—G. E. Clarke, Racine, Wis., assignor to himself and Sylvester Bullen, of the same place.

I claim the combination of the pivoted bar, H, levers, b, F, K, d, d, connecting bars (E L), and doors, D D, when arranged as and for the purposes specified.

[This invention relates to a new and improved animal trap, designed more especially for catching rats and mice, and of that class which are self-setting.]

51,778.—Elastic Syringe.—Herman E. Davidson, Gloucester, Mass., for himself, and as administrator of the Estate of C. H. Davidson, deceased, late of Charlestown, Mass.

I claim the improved elastic syringe bulb having flexible pipes made of one piece therewith.

51,779.—Machinery for Grinding Knives.—William Foster, Meriden, Conn., assignor to The Meriden Cutlery Co., of the same place.

I claim a cylinder arranged with fixed matrix or matrices revolving in the manner substantially as described, in combination with the bearings L, cam wheels, K, and the projections thereon, constructed and arranged to operate substantially in the manner and for the purpose described.

51,780.—Turn-out Wagon Seats.—George Gregory, New Haven, Conn., assignor to Lawrence, Bradley and Pardee, New York City.

I claim the above described construction and arrangement of a turn-out seat, for wagons or other vehicles substantially as, and for the purpose set forth.

51,781.—Manufacture of Artificial Leather.—W. W. Waite, South Natick, Mass., assignor to Flax, Leather Manufacturing Co., Boston, Mass.

I claim as a new article of manufacture an artificial leather made of animal and vegetable material combined, substantially as set forth.

52,782.—Postage Stamps, Etc.—George W. Bowsley, Monroe, Mich.

I claim the construction of the postage stamp by tearing a portion of it by the postmaster before it enters the mails. I also claim the preparation of the stamp in the manner substantially as described so that this may be done.

51,783.—Portable Hog Scald.—Arthur Clarke, Philadelphia, Penn.

First, I claim the combination of the table, C, and roller, D, with the boiler, B, arranged and operating substantially as set forth. Second, The furnace, A, and boiler, B, and table, C, in combination, when the latter can be raised as a cover for the boiler as well as a table, substantially as set forth.

REISSUES.

2,134.—Door Bell.—H. H. Abbe, Chatham, Conn. Patented July 11, 1865.

I claim the employment or use in a door bell or gong of a lever or clapper stem, operated under the pull by a grooved slide or other suitable mechanism, having a spring attached to it whereby the lever or clapper stem, although operated after the pull by the spring is not directly connected with the latter.

2,135.—Corn Planter.—John H. Alexander and David R. Alexander (assignees by mesne assignments of John Gross), Decatur, Ill. Patented June 6, 1865.

I claim, First, The employment or use of four seed holes, b, in seed plate, K, from which the seeds are discharged consecutively while the remaining holes are being filled or charged, substantially as and for the purpose described. Second, The employment or use of circular intermittingly rotating plates, N, provided with openings or holes, J, J, in combination with the vibrating seed plates, K, substantially as and for the purpose specified.

Third, The vibrating bars, O, placed below or underneath the plates, N, connected with the plates, H, and receiving their motion therefrom, and provided with pawls, M, for the purpose of operating the plate, N, as set forth.

Fourth, The circular gages, P, placed underneath the plates, N, as arranged substantially as shown for graduating the capacity of the holes, b, in the plates, K, as set forth.

Fifth, The arrangement of the cut-offs or strikers, d, with springs or elastic rods, N, in the manner substantially as, and for the purpose specified.

Sixth, The scrapers, Q, Q, at the outer ends of the arms B, R, which are connected by rods, t, to treadles u, substantially as and for the purpose specified.

2,136.—Meat Mincer.—Albert W. Hale, New York City. Patented March 15, 1859.

I claim, First, The use and application of a flanged cylinder or cylinders, having the grooves between the flanges tapering and diminishing in depth, substantially as set forth.

Second, The use and application of a cylinder or cylinders having spiral flanges with grooves between them diminishing or tapering in depth, substantially as set forth.

Third, The combination of two cylinders with spiral flanges so arranged that the flanges of one cylinder overlap those of the other, so that the cylinder operated by the power or crank will give motion to and rotate the other without the interposition of other gearing.

Fourth, The combination of a cylinder or cylinders having spiral flanges or tapering grooves with a shearing knife, and a case having spiral ribs on its inner surface, substantially as set forth.

Fifth, The combination of two cylinders or cones, frusto-conical, straight or spiral flanges, or tapering grooves, with a knife or case with or without spiral ribs.

Sixth, The combination of two cylinders having spiral flanges and tapering grooves with a shearing knife and a case having spiral flanges.

2,137.—Cotton Picker.—George A. Howe, Brooklyn, N. Y. Patented Dec. 4, 1855.

I claim, First, In a hand cotton harvester, an endless toothed chain, with a rotary motion, to detach and gather the cotton boll from the boll, substantially as described. Second, The endless toothed chain or gatherer, F, in combination with an exterior case or frame, A, or stirruper, H, and a bag or other receptacle, B, constructed and arranged substantially as and for the purposes described.

2,138.—Cotton Picker.—George A. Howe, Brooklyn, N. Y. Patented Dec. 4, 1855.

I claim a toothed chain, constructed substantially as herein described. 2,139.—Punching Press.—Norman C. Stiles, Meriden, Conn. Patented Jan. 26, 1864.

I claim, First, The compound eccentric, D, consisting of an eccentric wrist pin, a, adjustable disk, b, and clamp, d, or its equivalent, constructed and operated in the manner and for the purpose substantially as set forth.

Second, The V-shaped faces, g, on the slide, E, in combination with the laws, G, cast solid with the stock, A, and with the triangular gib, h, all as and for the purpose specified.

Third, The touch-off device, k H, arranged in combination with clutch pin, m, substantially as shown and described, so that said clutch pin is thrown in either direction by the direct action of the cam.

Fourth, The loose clutch pin, m, applied in combination with the band wheel, C, and shaft, B, in the manner and for the purpose substantially as specified.

Fifth, The button on the shaft, B, in combination with the spring catch, k, clutch pin, m, and n, and cam, H, arranged substantially as described, so that the cam is released automatically after the punch or cutter has completed his stroke.

Sixth, The yielding coupling pin, p, in combination with the clutch pin, m, and touch-off device, k H, constructed and operating in the manner and for the purpose substantially as specified.

Seventh, The yielding fulcrum pin, j, arranged in combination with the cam, H, clutch pin, m, and band wheel, C, substantially as and for the purpose set forth.

DESIGNS.

2,234.—Design for a Fan.—Gustavus Anton (assignor to himself, Jacob Hirner and F. Brurein), Philadelphia, Pa.

2,235.—Design for a Masonic Group of Statues.—William Christiaensen, New York City.

2,236.—Design for a Floor Oil Cloth.—James Paterson, Elizabeth, N. J. assignor to Edward Harvey, Brooklyn, N. Y.

2,237.—Design for a Hasp Hook.—Samuel M. Richardson, New York City.

2,238.—Design for a Trade Mark.—William P. Weyman and Benjamin F. W. Weyman, Pittsburgh, Pa.

THE FOLLOWING PATENTS BEAR DATE DEC. 19, 1865.

51,568.—Manufacture of Paper.—John W. Dixon, Philadelphia, Pa.

I claim the process of treating wood or other vegetable substances by boiling in soda ash (carbonate of soda) under pressure as a process or preparatory process for making pulp for the manufacture of paper from wood, straw, or other vegetable fibrous substances, substantially as described.

51,569.—Process for Bleaching Paper Pulp.—John W. Dixon, Philadelphia, Pa.

I claim, First, The process of bleaching pulp by the action of a solution of chlorine or chloride of lime at a high temperature and under pressure. Second, Circulating the bleaching solution through the mass to be bleached, in the manner and under pressure by means of a pump or its equivalent, substantially as above described.

Third, I claim pulping, washing and bleaching wood, straw or other vegetable fibrous material, in the same digester, under pressure. 51,570.—Manufacture of Paper Pulp.—John W. Dixon, Philadelphia, Pa.

I claim the process of treating wood or other vegetable substances by boiling in a solution of chloride of lime or chlorine, in highly heated water under pressure, as a process or preparatory process for making pulp for the manufacture of paper from wood, straw, or other vegetable fibrous substance, substantially as described.

51,571.—Manufacture of Paper Pulp.—John W. Dixon, Philadelphia, Pa.

First, I claim the combination of a pump, P, to force highly heated fresh water into and through the wood or other material contained in a digester with a strainer and an exit pipe for the escape of water at the bottom of the digester, strained from the woody fiber. Second, The combination of a pump, P, for forcing heated fresh water into the digester containing the material to be pulped by highly heated water under pressure with a coil, R S T N, or equivalent heating apparatus to heat the fresh water thus forced into the digester.

Third, The combination of the pump, P, for forcing fresh water into the digester containing the vegetable fibrous material to be pulped by highly heated water under pressure, with the intermediate heating boiler, K, or its equivalent, in which the fresh water is heated by the escaping effete water from the digester.

Fourth, The combination with the digester, A, of the pump, P, for forcing fresh water into and through the material in the digester to be pulped by highly heated water under pressure, the heating tank, K, or its equivalent, and the coil, R S T N, or its equivalent, for further heating the incoming fresh water.

Fifth, The combination of the pump, P, and the heating coil, R S T N, and intermediate tubing for forcing into the digester heated fresh water and the pump, X, for producing an auxiliary circulation of highly heated water from the bottom to the top of the digester. 51,572.—Process for Making Paper Pulp.—John W. Dixon, Philadelphia, Pa.

I claim the process of treating wood or other vegetable fibrous substances by boiling in a solution of caustic lime, under pressure as a process or preparatory process for making pulp for the manufacture of paper from wood, straw or other vegetable substances, substantially as described.

J. T. B. asks:—"If a patent is granted for a composition to be used in the manufacture of certain articles named in claim, can the holder of the patent sell the right of territory to manufacture one or more of those articles without invalidating the balance? For instance, I have taken out a patent for the manufacture of picture frames, busts, and other ornamental work, besides match plates and follow boards in foundries. Can I sell the right of territory for match plates and follow boards, reserving the remainder, without invalidating the claim to the other portion of my patent?"

ANS.—Yes. You can subdivide your patent and sell as many different rights as you choose. J. R. W. asks:—"Will you have the kindness to state the best apparatus for an amateur photographer; also the best process?"

ANS.—For an amateur the best instrument will be a stereoscopic, so that stereoscopes can be taken, or single pictures. An amateur should commence with the wet process, which is that commonly practiced in the galleries, and after becoming familiar therewith, take up the various dry processes, of which the tannin process is the best. In either process the first thing to be learned is to make negatives. Then comes printing. In the latter branch

the production of porcelain pictures will be found very simple and interesting. Buy your apparatus from the first establishment whose advertisement you find in the SCIENTIFIC AMERICAN.

J. H. W. asks:—"Suppose a man has two patents, both designed to accomplish one object, but one or either can be used independently, can he sell one for any special purpose, and yet reserve the use of it for other purposes?"

ANS.—Yes. "Suppose a man has one patent adapted to two or more different purposes, as for example, a furnace which may be used by a tinner, and also by a blacksmith, can he sell the right for the use of one mechanic and reserve the right to himself to sell for other purposes?"

ANS.—Yes. J. F. asks:—"If one or more of a certain person's claims, in a combination patent, can be used by another party in another combination for the same purpose, or for another purpose, can it be done without first obtaining consent?"

ANS.—We do not fully understand the above inquiry. What do you mean by a combination patent? No person can use a patented device without the consent of the owner of the patent.

J. H., of Kansas.—A good "dip" for cast brass is sulphuric acid, 1 qt.; nitric acid, 1 qt.; water, 1 qt. Gold lacquer for undipped brass is alcohol, 4 gals.; turmeric, 3 lbs.; gamboge, 3 oz.; sandarach, 7 lbs.; shellac, 1 1/2 lbs.; turpentine varnish, 1 pint. Green bronze dip is wine vinegar, 2 qts.; verditer green, 2 oz.; sal ammoniac, 1 oz.; salt, 2 oz.; alum, 1/2 oz.; French berries, 8 oz.—boll together.

E. C., of Pa.—A horse-power is the power that will raise 33,000 lbs. one foot in each minute; 33,000 lbs. of water falling one foot in each minute exerts one horse-power. A cubic foot of water weighs 62 1/2 lbs. To get the horse-power of a stream, there fore, multiply the number of cubic feet which flow in a minute by 62 1/2, and by the height of the fall in feet, and divide by 33,000.

G. L.—If you correspond with the advertisers of the mills which, from time to time, you see in the SCIENTIFIC AMERICAN, you will get the information you desire.

W. T., of S. C.—British subjects can obtain patents on the same terms as American citizens. T. H. Mc. asks:—"If an inventor assigns an invention to another party, on condition of receiving a certain sum when the patent is issued, and if the assignee transfers the invention to a third party, whose interest it is not to have the patent issue, can the inventor apply independent of the other parties and take out the patent?"

ANS.—Yes. It is not new to attach runners to wheeled vehicles, as you propose. D. F. W., of R. I.—We have found ground slippery elm very efficacious in preventing scale, such as forms in your boilers. Try it. The scale you send us seems to be chiefly mud. You might prevent the scale from entering the boiler by putting fine brush wood on your heater. The scale will form in a great measure on this rubbish, and thus purify the water before entering the boiler.

W. P. B., of Wis.—For your varnish receipt see another column. A good hygrometer indicates the degree to which the air is saturated with moisture, but it would require a long series of observations to determine the relation of such saturation to changes in the weather, and we are not aware of any such series of observations having been made.

C. R. A., of Pa.—You will find minute directions for making an electrical machine in "Silliman's Philosophy," and in some cheaper school philosophies. A. C. T., of N. Y.—There are schools of mines now connected with Harvard, Yale, and Columbia Colleges, but we know of no college in which mechanical engineering is taught as a separate course.

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