

LITHOGRAPHIC PRINTING PRESS—William Herrmann Stuble, of Boston, Mass. I claim the cylinder of rollers, m, in combination with a revolving tympan and scraper, operating as set forth for the purpose described.

Second, I claim the method of interrupting the motion of the rollers, s, and of again engaging them with the rack by means of the cams, f, lever, F, and pin, a, operating in the manner set forth.

Third, I claim hanging the parts which operate the scraper on springs, l, in the manner substantially as specified.

CULTIVATORS—George W. Tolhurst, of Liverpool, Ohio: I claim the arrangement of the flanged quadrants, F, pivots, D, clamp hook, E, braces, C and C', teeth, A, B, and rigid frame, G, in the manner and for the purposes set forth and described.

CATCH FOR HANGING DRAPERY—Alonso Warner and Cyrus A. Warner, of Bristol, Conn.: We do not claim the device of S. R. C. Denison, patented Aug. 5, 1856, or that of D. A. B. Coffin, June 3, 1857.

But we claim, for hanging drapery, the spring catch, B, as a new and improved article of manufacture, constructed as and for the purpose specified.

MODE OF OPERATING DRAIN FLOWS—Daniel Watson, of Newport, Ohio: I claim combining with the crab or anchor, H, and the plow, a, traveling capstans, J, which are connected together by a rope or chain, as herein represented, for the purpose of working said plow as described.

CORN SHELLER—William Wells, of Boston, Mass.: I claim the arrangement and combination of the shelling wheel, A, guide, B, cleaver, D, and weighted or spring presser, C, constructed and operating in the manner described for the purpose specified.

COPYING PRESS—Alonso Whitcomb, of Worcester, Mass.: When the screw is arranged to pass through and traverse a nut in the cross-bar, I claim connecting the screw and platen with each other in presses, by means of a cap on the upper side of the platen, with a spiral thread in its interior, to correspond with the thread on the lower end of the screw, substantially as described and for the purpose as set forth.

SCREW PROPELLER—Benjamin F. Bee, of Harwich, Mass., (assignor to himself and James A. Woodbury, of Boston, Mass.): I claim the combination of the cylinder, a, with the longitudinal plates, e, substantially as described.

HOBSE RAKES—B. Bridenolph, (assignor to himself and M. K. Borey,) of Clear Spring, Md.: I claim the arrangement, substantially as shown, of the handles, c, rake head, A, shanks, D, runners, F, F, and links or rods, E, for the purpose set forth.

[This rake is constructed in a novel manner, so that the implement, even when in motion, may be readily unloaded or emptied of its contents, the teeth of the rake being capable of adjustment to the desired height from the ground, and the implement, as a whole, is rendered extremely simple and efficient, readily manipulated, of light draught, economical to manufacture and not liable to get out of repair.]

ATTACHING HANDLES TO CUTLERY—Mathew Chapman, (assignor to the J. Russell Manufacturing Co.,) of Greenfield, Mass.: I do not claim making handles for cutlery by compressing the same into the proper form by means of dies, for this has been previously done, horn and other substances having been thus compressed for similar and analogous purposes.

But I claim placing the handles in the rough on the tangs of the implements, with or without the rivets, and compressing the same, while on the tangs, into proper form by means of dies, substantially as and for the purpose set forth.

[A description of this invention will be found on another page.]

MANUFACTURING WEBBING—James C. Cooke, (assignor to the Russell Manufacturing Co.,) of Middletown, Conn.: I do not claim the double hose, but my described improvement or new fabric.

I claim, as a new manufacture, a fabric or belting made not only of two or more sets of body warps, and a single filling thread passed through the decussations of the said warps, alike or otherwise, but with confining warps arranged and crossed on the filling, and between the body warps and at various or numerous intervals between the two edges of the fabric, so as to bind together the cloths made by the body warps, and form them with no straight or continuous parallel ridges.

METHOD OF BENDING WOOD—Robt. Fitts, of New Ipswich, N. H., (assignor to C. and G. C. Winchester, of Amherst, Mass.): I claim bending a piece of wood around a fixed form by means of the series of blocks, levers and connecting bars, arranged and operating in the manner set forth.

Second, I claim, in combination with the above, I claim the spring face plate, u, attached to the blocks, F, substantially in the manner and for the purpose specified.

BRIDGE WALLS IN BOILER FURNACES—William G. Hamilton, (assignor to John C. Hamilton,) of New York City: I claim the hanging of the bridge wall upon an axis, in the manner described, or equivalent, by which it is made capable of being folded down out of the way, as set forth, and also the locking of the axis hollow, terminating with an opening forward, as described and shown, for the purpose stated.

ELECTRO-MAGNETIC TELEGRAPHING—David E. Hughes, (assignor to the American Telegraph Company,) of New York City: I claim introducing into that portion of the electric current which passes to the opposite pole of the machine at the station where the operator is working, a retarder, such substantially as herein described, whereby said portion shall not reach the near ground plate until after the other portion of the same current shall have passed over the line wire and reached the distant ground plate, whereby said current is enabled to flow through the machine situated at the place of the operator, as aforesaid, without setting said machine in motion substantially as described.

MANUFACTURING CORSETS AND BUSTLES—Damas Lamoureux, (assignor to Alexander Dotiglas and Samuel S. Sherwood,) of New York City: I do not claim making a bustle of hoops, either wholly or partially encircling the body of the wearer, and forced back away from the body upon the back side by means other than the combination of the bustle with the corset.

What I claim is the new article of manufacture constituting a corset and bustle, when constructed in the manner described for the purpose set forth.

LOOMS—Stephen C. Mendenhall, (assignor to Isaac Lamb,) of Richmond, Ind.: I claim first, The treadle roller, G, carrier, E, F, and spring, H, in combination with the scroll cam, I, arranged in the box, D, for the purpose of operating the treadles substantially in the manner described.

Second, The hook, J, having an adjustable and hinged attachment to the breast-beam, when combined with a set screw to determine its position, and operating in the scroll cam in the manner set forth.

Third, The combination with the treadle of the graduated series of mortises, Z, and pin, Y, for the purpose of regulating the width of the shed.

Fourth, The combination of the picker spring, P, sliding catches, Q, triggers, U, and straps, Q, T, for the purpose of throwing the shuttle as set forth.

Fifth, The combination of the double eccentric pulley, R, S, and straps, Q, T, with the set screws, S, arranged substantially in the manner described, for the purpose of expanding the picker spring, P, in such a manner as to equalize the power at each forward motion of the lay or batten.

LASTS—Goodloe H. Taylor, of Shelburne, Mass., (assignor to himself and William Sherwin, of Shelburne Falls, Mass.): I claim so pivoting the hook or lever, c, as that the strain shall come upon said pivot and not upon the spring, by which means I effect a better and more certain fastening, as set forth and explained.

SEALING CANS AND BOTTLES—James D. Willoughby, of Carlisle, Pa., (assignor to C. M. Alexander, of Washington, D. C.): I claim, first, The arrangement of the disks, B and E, screw, F, and top, C, with the rubber, D, in such a manner that when the rubber is compressed its periphery will press tightly against the insides of the can or bottle mouth, while its center presses against the rod or screw, F, for the purpose of effectually excluding the air as fully described.

Second, I also claim the subject of the first claim in combination with the neck of the bottle or can, as constructed for the purposes set forth.

BURNERS FOR VAPOR LAMPS—Ephraim D. Rosenkrantz and Willard H. Smith, (assignors to said Rosenkrantz and Barton E. Clark,) of New York City: We claim the employment of a tube, A, for holding the wick, when provided with a plate, a, and perforations, f, for the purpose set forth.

We claim the employment of a cap, D, or heater having perforations, b, b, tangential to its periphery, substantially as set forth, when used with a wick tube, A, in the manner and for the purpose set forth.

COFFINS—Charles E. H. Richardson, of Philadelphia, Pa.: I claim the construction of a coffin or casket, made air and moisture tight by a double lining of cloth and cork, prepared and combined in the manner and for the purpose substantially as described.

REGULATING THE FLOW OF OIL TO THE WICK IN CARCEL LAMPS—Abraham Coater, of New York City, Patented March 25, 1856: In lamps in which the oil is forced to the wick so as to overflow, I claim regulating the supply of oil to the burner by means of the self-employing drip cup, operating upon the supply valve.

I claim also placing the fountain or reservoir for the oil above the lens, with its draught opening, and its supply pipe within the barrel or chamber of the lens.

MACHINE FOR MAKING HAMPS—Henry Burt and James Y. Hedden, of Newark, N. J., Patented Feb. 17, 1857: I claim the forgings of metal into useful forms by the employment of two or more pairs of rolls having their surfaces cut away; and combined and rotating and pressing the metal progressively into shape, being conducted from one pair of rolls to another through the agency of the guide.

MACHINERY FOR DRESSING SCREW HEADS—H. A. Harvey, of New York City, assignee (through mesne-assignment) of Thomas W. Harvey, late of said New York. Patented August 18, 1846: I claim, first, The employment of a pair of spring pincers which receive the blanks one at a time, and presents them to the jaws point foremost.

Second, In combination with the mandrel and jaws, or equivalent means for receiving and holding the screw blanks, the employment of a punch or driver for inserting the blanks to the required distance.

Third, The combination of the movable rest with the movable cutter head, and for the purpose of giving support to the blank and get out of the way so soon as the cutting operation is completed, and is claimed, whether the cutting operation be perforated on the head, or any other part of the blank.

Fourth, The particular manner of constructing the adjustable turning head, the slide or seat piece, the tool holder, sliding on the piece, between the check pieces, with the respective adjustments thereof, combined, arranged and operating so as to effect the setting of the tool; the manner of operating the gripping dies, and of separating the blanks in the hopper and conveying them to the feeding fingers, being similar to those described and used in the machine for cutting the threads.

SEWING MACHINES—Anthony W. Goodell, of Brooklyn, N. Y., and Nelson E. Scovell, of Albany, N. Y., assignees (through mesne assignment) of Wm. Lyon, of Newark, N. J., Patented December, 1854: I claim, first, The combination of a feeding foot pressed on to the cloth and moved to feed the cloth, and then released from said cloth and returned to its former position, with a clamping foot, that is raised when the feed of the cloth takes place.

Second, The vibrating bar, feeding foot, arm, and vibrating studs, arranged and acting to communicate motion to the feeding foot.

Third, A looping instrument constructed with a cavity or notch, and an eye carrying the second thread, and receiving a sideways movement after the said looper has passed through the loop of needle threads, for the purpose of carrying the second thread across and beyond the descending path of the needle, when said looper remains in a position for the needle to enter said cavity, or notch, as it descends between the looper and second thread, and then said looper receives a sideways movement to its original position to clear the needle in drawing back.

Fourth, The reciprocating looper, formed with the cavity, and with an incline, in combination with a stationary screw, and arranged so to communicate the required movement to the looper.

Fifth, The arrangement of the segmental spring looper and arm on the rocking shaft, for the purpose of adjusting and securing, by the screws, the looping point in the desired position with great ease and accuracy.

DESIGNS.

DINING-ROOM STOVES—Conrad Harris and Paul W. Zoimer, (assignor to Harris, Zoimer & Co.,) of Cincinnati, Ohio.

COOK'S STOVES—Conrad Harris and Paul W. Zoimer, (assignors to Harris, Zoimer and Co.,) of Cincinnati, Ohio.

EXTENSIONS.

COAL STOVES—Henry Stanley, of Poulney, Vt. Patented January 4, 1845: I claim the manner in which I have combined and arranged the two stories thereof, consisting of two cylinders, with the eight triangular radiating flues, arranged around and in contact with them, said flues communicating with the flue space in the pintle, with the intermediate chamber, and with the corner space—the two latter being divided by partitions into anterior and posterior portions, and there being also openings through the upper end of the upper cylinder into the cornice space: it being distinctly understood that I do not make any claim to either of the individual parts, taken separately and alone, but that I limit my claim to the combination and arrangement thereof as a whole; not intending, however, by this claim, to confine myself, in constructing any stove, to the particular form of the respective parts, but to vary these, as I may deem expedient, whilst I attain the same end.

SAW COTTON GIN—Elezzer Carver, of Bridgewater, Mass. Patented January 4, 1845: I claim the combination of a cylinder brush, having fans on the end thereof, with a cotton gin.

INVENTIONS EXAMINED at the Patent Office, and advice given as to the patentability of inventions, before the expense of an application is incurred. This service is carefully performed by Editors of this Journal, through their Branch Office at Washington, for the small fee of \$5. A sketch and description of the invention only are wanted to enable them to make the examination. Address MUNN & COMPANY, No. 128 Fulton street, New York.

Railroads in the United States.

For the benefit of those inventors who have turned their attention to the improvement of railroads, either in rolling stock or permanent way, we condense the following information from the New York Herald, of the total number of miles of railway in the various States up to the close of 1858:—

Table with 2 columns: State, Total Length of Road, Length of Road Completed. Includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Dist. of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Tennessee, Kentucky, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, California.

We have purposely omitted fractions of miles in our table, but adding them in, the totals are as follows:— Total length of roads, 44,417 miles; total length open, 28,238.

Science made Popular.

MESSES EDITORS—I cannot permit the year that is now passing away to roll out of existence without doing myself the honor and pleasure of telling you how much enjoyment and profit I derive from your valuable and truly interesting paper. By your noble effort you have given that dignity to the mechanical professions, North and South, which they deserve, both on account of their utility and the variety of scientific applications required to keep them in motion. Your paper is indeed invaluable, and has no equal in this or any other country.

M. McK.

University of Virginia, Dec., 1858.

[The above is but a fair sample of hundreds of letters received by us every year; and were we disposed to do so, we could occupy nearly one half the available space of the SCIENTIFIC AMERICAN, in making public the good opinion entertained towards it by the press and the people. Few papers now published have received more praise from all classes than this.

New Motive Power Engine.

Old and exploded theories and inventions frequently come sailing round on the pages of our cotemporaries, astonishing the uninitiated. The following is one of these, which appeared in one of our exchanges last week:

"An invention is described in the English papers of a new or improved motive power engine, in which a mixture of hydrogen and atmospheric air is exploded, and the partial vacuum thereby produced, is made to bring into operation the pressure of the atmosphere, so as to obtain therefrom motive power. The engine consists essentially of three parts. In the first of the three parts, hydrogen is generated by the action of zinc on diluted sulphuric acid. The hydrogen gas is transmitted to the second part of the engine, where it is mixed with a certain quantity of the atmospheric air. The mixture is exploded by a small flame, fed from the generators."

In principle this is similar to Dr. Drake's detonating gas engine described on page 61, Vol. XI of the SCIENTIFIC AMERICAN. Common gas was employed in it, mixed with the atmosphere, and this is all the difference between the two.

How Corn is Preserved in Russia.

At a late meeting of the Academy of Sciences, held in Paris, a letter from M. de Semchoff—a Russian land-holder—was read, describing the manner in which corn-pits are made in that country. The pits are dug in a dry soil, and instead of masonry, the earthen sides are hardened by a long continued exposure to a wood fire. Before the corn is introduced, the air in the pit is rarified by burning straw in it, after which the grain is thrown in, packed close, and the pit is tightly enclosed. Corn has been preserved in such pits for forty years. Some of our western farmers, who raise large crops of wheat and corn, should try this method of preserving grain during years when there is a great harvest, in order to lay up a store for seasons of an inferior yield.

Patent Laws.

In the Senate of the United States, on the 17th ult., Senator Dixon, of Conn., submitted following resolution, which was considered by unanimous consent and agreed to:—

"Resolved, That the Committee of Patents and the Patent Office be instructed to inquire what legislation is necessary to enable the Commissioner of Patents to compel the attendance and examination of witnesses, and the production of books, contracts and vouchers, and a full disclosure by patentees of all facts upon which any claim for the extension or re-issue of a patent may be claimed, and that said committee report by bill or otherwise."

Handles for Cutlery.

This is a novel invention. It consists in forming the handles by pressure, by means of dies, from the rough. The rough stuff as it comes from the saws is placed on the tang of the implement, secured there, and then pressed into a beautifully finished handle, that is almost part and parcel of the implement itself in point of stability. Any material capable of compression can be used. The inventor is Matthew Chapman, of Greenfield, Mass., and he has assigned the invention to the J. Russell Manufacturing Co.

Spoke Machine.

Nathan Olney and Charles H. Kellogg, of Amherst, Mass., have invented a machine for cutting spokes. It consists in the employment of expanding cutters in connection with a reciprocating carriage provided with guides or patterns and the "stuff" or stick to be acted upon, whereby the stick may be cut at one operation into the desired shape to form a perfect spoke. The machine was patented this week.

Enduring Perfumes.

Among the curiosities shown at Alnwick Castle, in England, is a vase taken from an Egyptian catacomb, and which contains a mixture of resins, that send forth an agreeable odor, although said to be three thousand years old.

The mosque of Omar in Constantinople, is highly perfumed with musk, which was mixed with the mortar in its walls during the time of their erection several hundred years ago.

A GREAT IDEA.—A correspondent of the Easton (Pa.) Daily Times, and who signs himself "Inventor," proposes to keep the Pacific Railroad out of the way of Indians, buffaloes, and other inconveniences, by suspending it from balloons, and holding it in its place by large magnets buried in the earth at regular intervals. A telegraphic wire could, he thinks, pass over the tops of the gas-bags, and the expense of the whole be less than the common plan by about \$400,000,000. A sanguine inventor, this!

THANKS, GENTLEMEN—I received yesterday from the Patent Office the patent for which I applied through you. Please accept my thanks for the promptness and dispatch with which you have conducted the business. DAVID WELLS. Lowell, Mass., December, 1858.