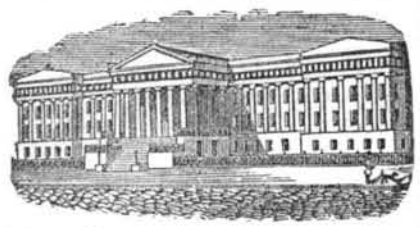

Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING JANUARY 4, 1853.

HECKLING FLAX AND HEMP—By J. P Arnold, of Louisville, Ky.: I do not confine myself to any particular form or arrangement of the parts, so long as the machine is so constructed that it will operate as set forth.

I claim the method of heckling hemp by subjecting it to the action of a series of mixed beaters and combs, the teeth of the latter being of varying length —some of them projecting so far, and others beyond the beaters, and the whole operating substantially as set forth.

Also a rest, having a narrow slot open at one end in combination with a concave projecting beyond the end of the cylinder at the open end of the rest, as set forth.

FOR SAWING STONE—By Jas. T Bruen & Jas. G Wilson, of Hastings, N. Y.: We claim lifting the saws at or sufficiently near the middle of the stroke, to effect the specified purpose.

Also interposing india rubber or its equivalent, between the ways, and the inclined projections which lift the saw frame, as specified.

SELF-WINDING TELEGRAPHIC REGISTERS—By J J. Clark, of Philadelphia, Pa.: I do not claim the application of the click and ratchet whsel, operated by an electro-magnet, vibrating a lever to cause rotation and obtain power; but I claim regulating the current, through the coil of the electro-magnet of the self-winding apparatus, by means of the relative motion of the spring shaft and spring box, so that when the spring has been wound up to a certain point, that current shall be cut off, and the self-winding apparatus cease to act.

FOR PLANING MOULDINGS—By J. D. Dale, of Philadelphia, Pa.: I claim arranging a series of sets of moulding cutters or plane irons, side by side, along the length of a rotating stock, as specified, when this is combined with rotating saws or their equivalents, interposed and projecting beyond the periphery of the cutter for separating the several mouldings formed on one plank, as specified, whereby the operations of planing the several mouldings, and separating them, are performed at one and the same operation, and accuracy of work secured, as set forth.

FOR PLANING MOULDINGS—By J. D. Dale, of Philadelphia, Pa.: I do not limit myself to the number of knives or rollers to be used, nor to the manner of operating the rollers, as these may be varied at pleasure, nor to the use of all my improvements in one machine.

I claim attaching the planing iron to a plane stock, which is hinged to an adjustable sliding plate, as specified, by means of which combination the plane iron can be readily thrown up to be sharpened without the necessity of taking it out of the machine, as set forth.

Also the adjustable sliding plane, as described, when combined with the separate movable mouthpiece by the means as described, so that in setting the plane iron, a differential motion is given to the mouth-piece, in order to vary to any desired thickness the shaving, that when the plane is set to cut a thick or thin shaving, the mouth-piece shall receive a corresponding set, as described.

GRAIN WASHERS—By George & George W. Feaga, of Frederick, Md.: We claim the method, as described, of separating grain from smut, garlic, and other impurities by first washing it in a trough or reservoir of water, where the separation takes place, and then conveying the washed grain to a drying apparatus, where it is thoroughly dried, the whole operation being performed as set forth.

CRUTCHES—By J. S. Gallahar, Jr., of Washington, D. C: I claim, first, the revolving, plain, or corrugated spring top, in combination with an air cushion as described.

Second, in combination with the revolving spring top, the sliding joint applied to the staff of a crutch, in the manner described.

Third, in combination with the sliding staff, the revolving handle, extension ferrule, and elastic bulb, as set forth.

HILL SIDE PLOWS—By J. C. Bidwell & J. Hall, of Pittsburg, Pa., executors of Samuel Hall, dec.: We claim the manner of arranging the mould board sup on the land side, to wit, placing their hinges at such a distance from each other on each side of the centre of the land side, that each mould board may be supported by the edges, and projection, as far as practicable, from the hinges and rest upon the grooves near the middle of the land side, as set forth.

HOSE PIPES—By Richard Hollings, of Boston, Mass.: I claim hanging the spread to the hose-pipe, by means of pins passing through the collar (which allow it to vibrate) in combination with adjusting apparatus, for varying the position of the spread in the manner specified.

LATHES FOR IRREGULAR FORMS—By B. F. Jenkins & Luke L. Knight, of Barre, Mass.: We do not claim the vibrating cutter cylinder and vibrating work carriage; but we claim giving the necessary relative vibrations to the cutter cylinder and work carriage, by crank pins or eccentrics upon the axes of a pair of toothed wheels, of which one is toothed all round its periphery, and the other upon any suitable portion of its periphery, the latter wheel having a constant rotary motion applied, which gives an intermittent rotary motion to the former wheel, whereby the said cutter cylinder and work carriage receive, the one a constant vibratory motion, and the other an intermittent vibratory motion, as described.

ORE WASHERS—By Merritt, Peckham & Lucius O Palmer, of Utica, N. Y.: We claim the interior cylinder with indented ends and wings, attached as described to operate as a discharging apparatus attached to the interior of an inclined revolving screen, as specified.

POTATO DIGGERS—By F. C. Schaffer, of Brooklyn, N. Y.: I am aware that machines have been previously used for digging potatoes, but in these machines the potatoes are dug or scooped from the hills by means of a concave or scoop formed of a single piece, the brush cylinder carrying the potatoes up the concave and into the receptacle. I therefore do not claim the above arrangement; but I claim the arrangement and combination of the scoop and endless apron, by which the potatoes are dug or scooped from the hills, and the dirt thoroughly separated therefrom, as they pass up the endless apron into the receptacle.

TONGUING AND GROOVING MACHINES—By Wm. Watson, of Chicago, Ill.: I claim the method, substantially as described, of tonguing and grooving boards, by means of knives arranged in the plane of the sides of the tongues or grooves, with their cutting edges inclined towards their rear extremities, so as to cut gradually deeper and deeper as the board passes them, when in combination with cutting instruments arranged between these side knives to reduce or remove the surplus wood which is severed by them, as specified.

PRINTING PRESSES—By Jeptha A. Wilkinson, of Fireplace, N. Y.: I am not aware that type have ever been formed with two parallel sides and two sides tapering on the radii of a circle, with a groove on one side and a projection on the other, so that on setting the parallel sides together, and the tapering sides together, and placing the projecting beads into the corresponding grooves, a cylinder is formed of firmly secured type, with their faces equi-distant from the centre, by which means the printing is effected, the same as though the whole were solid in a perfect cylindrical form, this constitutes the essence of my invention, and the other parts claimed are the means to use, to form, regulate, and work the main invention, and for parts growing out of or connected with the same.

First, the application of notches or grooves and heads, or projections on the shafts of type, tapered to the radii of a circle, for the purpose of locking said type together, and securing it in place on a cylinder, as described.

Second, the mode described, of forming column lines, rules, rings, and blocking, so that they are adapted to the cylinder and to the type, with notches and projections, to lock into the type and cylinder, as described.

Third, the mode described, of constructing the type cylinder, with heads, the one head having a bead or projection, the other with a notch or groove around in its face, near the edge, for the purpose of receiving and securing the type or other parts composed on the surface of said cylinders, such heads being fitted with means to compress and hold the type and parts in a cylindrical form, for the purpose of printing by a rotary movement, as described.

Fourth, the mode of constructing the compositor's stick in the form of the part of a cylinder, with flanches having beads or grooves, so as to hold the type in segments of a circle, while composing or setting up, preparatory to the placing of the same in the galley or proof cylinder, as described.

Fifth, the mode of constructing and applying the galley or proof cylinder, so that it shall receive and hold the type in circular form, from the composing stick, and retain the type and the needful parts in place, for correction and proof, and for transferring the same to the type cylinder, the parts being constructed and operating as destribed.

Sixth, the mode of forming and constructing the type holder or grab, to enclose, take hold of, and securely lift a mass of type from the galley or proof cylinder, and transfer the mass, either to the type cylinder or to a stack, for future use, or to reverse or vary either of these operations as may be needed, the instrument being constructed and operating in the manner described.

Seventh, the application and arrangement of the pulleys, bands, and guide plates, so placed and moving, so as to carry the sheet of paper from the press, in lines diverging, vertically, and conveying horizontally, under, between, and over the guide plates, thereby presenting the paper in a folded form, to the compressing rollers, as described.

Eighth, the application of the press rollers to compress the folded paper, and lead that out of the folding apparatus, and the combination of the standing roller, revolving shear, standing shear, valve, and cam, to effect the cutting of the folded paper, as it issues from the rollers, and guide the fresh cut edge clear of the standing shear, the whole being as described.

PIANOFORTE HAMMERS—By Rudolph Kreter, of New York City (assignor to Robert Nunns & John Clark): I claim, first, the application of the felt or other covering material to the whole set of hammer heads at one operation, as described.

Second, the clamp, bar, levers, pulleys, and block, with the sliding frame, in combination, as described, but without limiting myself to the precise shapes and proportions or positions of the said parts, provided the arrangement embrace the means of holding the set of hammer heads, and of bringing them to bear upon a table containing the strips of felt described, and also holding and moving the whole together either horizontally or vertically to and from the jaws of the vise, as set forth.

Third, the vise, in combination with and enclosing the bar and block, as described.

Fourth, the lip pieces, in combination with said vise, as described.

Fifth, the levers and springs in combination with the vise, for producing the pressure upon the sides of the felt during the passage of the hammer heads, between the jaws of the vise, as described.

Sixth, the method of increasing or diminishing the pressure of the levers upon the vise, by means of the movable bridge, in combination with the press, as described.

BOTTLE STOPPERS—By Walter Hunt (assignor to Charles T. Kipp), of New York City: I am aware that there have been other plans of self-acting stoppers, recently introduced, all of which have the same objection of producing an uncertain scattering or over discharge, and are constructed upon principles widely different from my plan.

I claim the combination of the circular cap and central shaft, viz, the swivel, pendulous and sliding motions, by means of which, without regard to which side of the stopper is upward, (when it is placed horizontally or nearly so) the under portion of the cap swings off from the flange, thereby producing a downward opening between the two for the requisite discharge of the liquids contained.

New Alloy.

In examining some silver ore from South America, at the government office in Paris, one piece was noticed, which, from appearance, was supposed to be exceedingly pure. However, to be quite certain, the examiner tried it, and from the resistance offered to the cutting tool, judged it to be 750 thousandths. The assay, however, gave as its purity 994 thousands, so that 6 thousands, only, of foreign materials sufficed to give it this resistance without depriving it of its malleability. From specimens of the same that were assayed, there were given, in analysis, 3½ thousands of iron, 2 thousandths of cobalt, and ½ thousandth of nickel. The chemist, M. Barruel, who made the analysis, has been experimenting with the same alloy in different proportions, and obtained the most perfect result, by mixing these three metals in equal parts. As there is no account of a similar alloy in any chemical work, he thinks that it might be profitably employed for various purposes, such as faucets of particular kinds, or medals where a more durable metal is required for the relief than what is generally employed as well as for many other uses.

The above is translated from the proceedings of the French Academy of Sciences for the month of December last.

Commissioner of Patents' Reports for 1851.

This report has taken a whole year from the time it was presented to Congress (January 1851) to find its way into print. We make this statement as a panegyric on the expeditious efforts of the present government at Washington in presenting useful information about inventions to our people. We believe that never since the P. O. was established has a printed report of its affairs been so long delayed. It is a shame. A change has come over the method of doing business in the Patent Office, so far as the Reports of the examiners are concerned. Hitherto it has been customary for each Examiner in the Patent Office to present a brief report of the inventions examined and patented in his department during the year, and to present a succint account of their principal features. No such reports were made in 1851. The reason given, is a "pressure of business, and because charges had been made of partiality in the selection of inventions noticed."

There is a very excellent report of Mr. Riddle, respecting the World's Fair, some extracts from which we will hereafter present to our readers, who will find the same full of interest.

The first part of this Report contains a protest by ex-Commissioner Ewbank, against the supervision exercised over the Patent Office department, by the Secretary of the Interior. After Mr. Ewbank was appointed, his rights and privileges, as exercised by former Commissioners of Patents, were abriged and interfered with by the Secretary of the Interior; this called forth an incensed rebuke from the Hon. Edmund Burke, the former Commissioner, who had upheld the rights of inventors; and so far as we know, Mr. Ewbank made no public answer, but it seems he did not submit to the same in silence, so far as it related to the action of the Secretary of the Interior, nay, he even addressed a communication to him, wherein he states that the Patent Office "should be wholly freed from political influences," and on a difference of opinion between him and that officer, the same was referred to the Attorney General, who gave his opinion that the Commissioner of Patents, all his clerks, and every person about the Patent Office were simply mere clerks to the said Secretary, and that the Commissioner of Patents could not pay out a cent but under the control of that officer. Mr. Ewbank was then compelled to submit, but not without presenting some resolute and pungent reasons against the evils of such supervision.

The public and ourselves have blamed him wrongfully, as this report shows, for yielding so much in silence (as was thought.) Next week, however, we will present some of the curious pieces of this report, and show that the semi-official article in the "Republic," in answer to the "Scientific American" was a misrepresentation of facts, concerning what we stated in reference to the Secretary of the Interior endeavoring to obtain the wing of the Patent Office, in contravention to the real object for which that building was intended, and for which it is now required.

The Patent Office has been in a transition state ever since the present party came into power. We do not discuss party politics, we only make this statement as a positive fact. There has been mismanagement somewhere. All the old examiners have left the office during the past year, with the exception of Dr. Gale, who is, we believe, the only old examiner now in the Patent Office. H. B. Renwick, Esq., examiner of that class of subjects embracing engineering and hydraulics, has recently resigned, also the assistant machinist, Jas. Ewbank.

British Patent Office.

The British government has decided that letters patent will not be granted by them for the colonies, even upon the payment of extra fees. This is the information we have received from our agents in London. By this decision, inventors are debarred from obtaining protection for their inventions in the British Colonies. This is a recent decision of the British Patent Office. Of the mental calibre and administrative qualities of any man or class of men, no one can form a competent opinion, unless he is acquainted with the business over which such an administrator presides. Many, (too many) suppose that government officers sit away up in the clouds; that they have qualities of mind far above common men. This is not so; it is true now as it was a century ago, when Oxenstiern told his son to go to a convention of celebrated diplomatists "and see with how little wisdom the world was governed."

The Age of Steam.

On Wednesday evening (29th ult.,) Geo. W. Curtis, Esq., delivered one of the course of "Popular Lectures at the Tabernacle. The subject chosen was "The Age of Steam." The attendance was not so numerous as it should have been—steam not being such a fashionable subject as the life of the *Dean* (Swift). His lecture was characterized by some very happy hits. This is truly the age of iron and steam, it rules the land and sea. The locomotive and steamship are the civilizing agents of modern times. He said, "the children of this age are baptised in steam, and handle the lightning with perfect safety.—The literary aspect of affairs is also improved by steam. We read by steam. No rebel Persian can aim a deadly blow at the Shah—no affairs of Louis Napoleon—no accident can happen unless they are related to us either by steam or by telegraph. Before the Duke of Wellington was buried the squatters in the far West were reading his life. At the immortal Webster's death the news was conveyed to the principal cities of the Union almost instantaneously.

"Our artists need not be ashamed of themselves. A few days ago a painting was sold at auction for $1,300, which was painted by a young American. It is said by some that steam ruins the fine arts; but it is not so—it rather serves to improve their condition.—Every country is celebrated for excelling each other in some particular branch of business, and not knowing much about the others: the Yankees have superficial knowledge of every branch of business, and every art, and in some of which they excel all other nations. It was true that the men who entered the colleges of this country did not receive such a profound education as in those of other countries, but still they received what they required, which is a "superficial one." In a railroad car, when you are told that you are going at the rate of forty miles an hour, it does not seem to surprise you. He then alluded to the accidents that happen from steam explosions, and said that those who use steam ought to be careful—for, if by steam we sin, by steam we shall be surely punished. In this age a man can travel from New York to Buffalo in less than a day by railroad, and looks upon that mode of conveyance as safe as the canal of twenty years ago. In all our prosperity let faith, hope, and charity be our conductors; and if we take them for guides, we will have no reason to fear any heavy misfortunes.

In our last number, under the head of Iron Making, there appeared an article descriptive of a new process for obtaining wrought iron direct from the ore, in which it was stated that measures had been taken to secure a patent. It is, however, requisite to mention that the present application is not intended for the main features of the invention, as it has been already patented, but for valuable additional improvements. We are, moreover, empowered to add that applications for patents have been made in foreign countries. For further particulars address by letter or otherwise, to James Renton, or A. H. Brown, of Newark, N. J.