



Advice to American Patentees Concerning Foreign Patents.

It is generally much better to apply for foreign patents simultaneously with the application here. If this cannot be conveniently done, as little time as possible should be lost after the patent is issued, as the laws in some foreign countries allow patents to any one who first makes the application, and in this way many inventors are deprived of their right to take patents for their own inventions.

Many valuable inventions are yearly introduced into Europe from the United States,—by parties ever on the alert to pick up whatever they can lay their hands upon which may seem useful.

It is a part of our business to secure European patents—in fact three-fourths, and probably more, of all the patents granted in Europe to American citizens, are solicited through this office. We have faithful agents in the chief cities in Great Britain and on the Continent, and through them we can not only solicit patents, but often effect their sale upon advantageous terms. We can give the names of many of our patrons who have realized fortunes out of their European patents through our Agents abroad, if it is desired.

We are prepared at all times to furnish advice in regard to Foreign Patents, and will cheerfully do so on application personally at our office or by letter.

Models are not required in any European country, but the utmost care and experience is necessary in the preparation of the case.

Almost every invention that is of value in this country is of equal value abroad, and we would recommend patentees to pay more attention to securing their inventions in foreign countries than they have heretofore done.

All particulars in regard to the modus operandi of obtaining patents in any country where patent laws exist, may be had by addressing the publishers of this paper.

MUNN & CO.,  
128 Fulton street, New York.

(Reported Officially for the Scientific American.)

LIST OF PATENT CLAIMS  
ISSUED FROM THE UNITED STATES PATENT OFFICE  
FOR THE WEEK ENDING DECEMBER 2, 1856.

ICE SAW—Stephen Scotton, of Richmond, Indiana: I claim, first, the saw, o, rotated or rotated as shown, and placed in the swinging frame, which is rendered adjustable by means of the rack, Q, pinion, I, and notched wheel, k, as described, for the purpose set forth.

Second, I claim moving the platform, A, and feeding the saw, O, to its work, by means of the wheels, H I, on the driving shaft, C, the pinion, f, and screw, h, on the shaft, J, and the toothed wheel, I, on the axle, B, as shown and described.

Third, I claim moving the platform, A, laterally, when necessary, by means of the wheels, S S, on the shaft, H, and the wheel, O, on the plate, T, these parts being arranged as described.

[In this ice sawing machine a circular saw is employed and placed in an adjustable swinging frame. The arbor of the saw is connected with a proper feed motion to propel the carriage to which the saw is attached, and this carriage is provided with a device to adjust it for sawing blocks of ice of any required width. This ice machine saws with great rapidity, is not complicated, nor liable to get out of order.]

AXLE BOX—Wm. H. Saunders, of Hastings, N. Y.: I claim a lining of a thin tub of condensed and hardened ductile metal or composition, substantially such as specified introduced and secured within the box, and presenting a hard, polished surface to the axle itself, substantially in the manner and for the purposes described.

SYPHON A CLAPNET—Henry M. Walker, of Watertown, Conn.: I am aware that siphons have been filled at the top, and that a valve, or stop-cock, has been used on the long arm.

But I claim the application of a device for the simultaneous opening and closing of the orifices, at each end of a siphon.

CONVERTING ROTARY INTO RECIPROCATING MOTION—Albin Warr, of New York City: I claim the intermittent semi-rotating head, F, or its equivalent, carrying in eccentric relationship to the bearing of said head, a driving pinion, H, for gearing with the endless rack, D, and driven by or operating through suitable gear, a pinion, f, arranged with separate action, concentric to said head—the latter being combined with sliding stops, J, or their equivalents—all arranged and operating together, substantially as and for the purposes set forth.

[Various devices have been employed for converting reciprocating into rotary motion, and vice versa. This improvement embraces a very simple method of obtaining these results. It is applicable to and useful for various machines, being preferable for some purposes, either to a crank or eccentric.]

SELF-ACTING RAKES FOR HARVESTERS—Jesse Whitehead, of Manchester, Va.: I claim the combination of the rakes, I, J, rod F, when said parts are made to operate together, and independently of each other, substantially as described.

I also claim, in combination with the rakes, and rod, F, the permanent cam, R, and yielding cam, S, which causes said rakes to advance in one line, and return in another line, as set forth.

I also claim, in combination with the rake head, H, the rod, g, having its support alternately in Q, h, for the purpose of preventing said rake head from binding on its ways, as set forth.

And, finally, I claim giving the rake, I, a movement varying to the size of each and every gavel, as set forth.

RAKING APPARATUS—S R. Hunter, of Cortlandt, N. Y.: I do not claim the rotating cutters, C, C, and the hinged or jointed plates, A, for they have been previously used, and were formerly patented by me.

But I claim the bar, J, attached or hinged to the arm, K, on the platform, H, and operated by the spring, L, chain, l, ball k, which is fitted in the box, M, and the plate l, n, the wheel, G, when the parts are arranged to operate in combination with rotary cutters, C, C, and endless apron, I, as described, for the purpose set forth.

[This is an improvement in rotary cutting harvesters, a patent having been previously granted on this class of reapers to Mr. Hunter. The endless apron and raking attachment as now combined with the rotary cutters in this machine, render it exceedingly simple in construction: and it is said to operate well.]

MOP HEADS—Frederic Allen, of Worcester, Mass.: I do not claim a clamp, formed of two bars hinged together at one end, and provided at their opposite ends, with a screw, for forcing one of them towards the other.

FEEDING PAPER TO PRINTING PRESSES—Moses S. Beach, of Brooklyn, N. Y.: I do not claim the printing of sheets on both sides, at one operation.

But I claim seizing the back or tail end of the sheet, and thus returning it to the types, for a second impression, in the manner substantially as set forth.

EARTHEN VESSELS FOR HERMETICALLY SEALING—Edwin Bennett, of Baltimore, Md.: I am fully aware that rims, ridges, grooves, or gutters, and also ground surfaces, have been employed; and also, that in some kinds of jars or vessels, formed from plastic material, the lower surface of the lid, and the upper surface of the vessel, or jar, have been left unglazed; and, consequently, I disclaim all such.

I claim, in the manufacture of earthen vessels, constructing the covers or lids of such vessels, with the beveled or sloping edge, d, and plane surfaces, c, e, unglazed, or in the biscuit state, when said lid or cover is used, in combination with a vessel, the contiguous surfaces, b, b, c, c, of which are also left unglazed, and in an absorbent state, for the purpose set forth.

WRISTBAND FASTENER—J. P. Derby, of Boston, Mass. I claim arranging and combining with a face plate, in manner substantially as described, two parallel cross pieces, B and C, one of which, the lower or second cross-piece, being constructed with a movable section, D.

I claim the hollow stem, E, through which the post passes, that is connected with the movable section of the cross piece.

I also claim the arrangement of the lever, H, in connection with the face plate, and the movable section, D, of the cross-piece, whereby, by turning the face plate the desired motion is given to the cross piece or wing; the whole making an effective fastener, for the purposes described.

BACKING ELECTROTYPE PLATES—Wm. Filmer & Edward Bookhout, of New York City: We claim, first, the box or hopper, B, placed in an inclined position, and the plate, C, placed within the box or hopper, the bottom, b, of the box or hopper, being provided with ledges, d, e, and arranged as shown.

Second, we claim the spiral springs, W, interposed between the shell, E, and plate, C, as described.

[Melted metal has previously been poured in between two plates to form the backs of electrotype shells which were placed between the plates, but perfect backs were never formed in this manner. This improvement avoids every difficulty, and at the same time, by the employment of springs in the hopper, the shell is kept in proper position, and allowed to expand uniformly at all points, when heated by the molten metal, so that it will not warp. The electrotype shells can be backed expeditiously and of a uniform thickness.]

NUT MACHINES—Robt. Griffiths, of Philadelphia, Pa. I claim, first, the manner, substantially as set forth, of securing the punching and cutting bars between the sliding plates, for the purpose specified.

Second, the combining of the punching and cutting bars, with the strippers, the said strippers being whole, or divided, and operating in either of the methods specified.

OVENS—J. P. Hayes, of Philadelphia, Pa.: I claim, making an oblong opening, g through the plate, f, which is fixed to the back of each of the ovens, substantially and for the purpose set forth and described.

Second, I claim the arrangement of the soot catching trough, h, at the back part of each of the said ovens, substantially as and for the purpose set forth.

ROCK DRILLING—Mastin Gore & Jno. P. Gore, of St. Louis, Mo.: We do not claim feeding the drill at the end, or during its down stroke, by the action of its head on the device holding its suspending mechanism; another operation being required for such devices, as such constitutes no part of our invention.

We claim the combination of the rock shaft and its arms, O, P, Q, with the pawls, S, T, ratchets, V, U, and the collar, N, on the drill shaft, for effecting the feed and turning of the drill, by the upward movement of its shaft, as set forth.

R. R. CHAIRS—J. H. Morley, of St. Louis, Mo.: I claim fishing the joint of railroad bars, with a divided chair, to ease the grip of the chairs to the rails, on the bottom flange of the rails, when so constructed, that the divided bed of the chair shall not come into contact with, or impinge upon each other, so as to bear any part of the strain of a weight upon the rails, but leave the upper jaws free to bite with the whole strain of the bolts, whereby they are made to grip the rail joints more firmly, as the cars move over them, without the necessity of being supported upon trestle bearers, as heretofore, in the manner substantially as described.

PENTAGRAMS—Henry Neumeier, of Macungie, Pa.: I claim the upper sliding frame, A, A, A, in combination with the cam, B, for turning the frame, B, B, C, C, and the traversing cog rack, E, E, and uprights, F, F, C, the slotted traversing plate, D, D, g, H, with the traversing drawing board, or tablet, D, the compound cog and geared cone pulleys, L, L, M, M, O, O, O, O, the compound or double and adjustable rack devices, P, P, P, P, Q, Q, Q, Q, as described.

I also claim the grooved sliding rack bar, R, R, R, of the traversing rack, S, with the device, S, T, V, which combines with their pinions and cone pulleys, and the traveling carriage, A, A, as described.

DRYING CYLINDERS—Horace W. Peaslee, of Malden Bridge, N. Y.: I claim the employment of a spiral tubular heater, around and over the head of the child, in combination with an exterior metallic casing, as set forth.

BABY WALKER AND JUMPER—E. Y. Robbins, of Cincinnati, O.: I claim the arrangement of the upper extension of the broad-based cast-iron support frame of the apparatus around and over the head of the child, coming in contact with articles of furniture, as he moves himself over the floor, and forming a support for the jumper (or child sustaining canvas-covered hook), and also serving the purpose of suspending toys above the head of the child, and within his reach, to amuse him, and at the same time cause him to judiciously exercise his arms and chest, substantially as set forth.

EXPANDING TAP—Harley Stone, of Uxbridge, Mass., & M. D. Cole, of Blackstone, Mass.: We do not claim making expanding tools, by means of cam surfaces, irrespective of form and arrangement.

But we claim the arrangement of the cam piece, J, the nut, I, and screw, G, and their connection with the cutters and case, A, when constructed and operating as set forth.

APPLYING STEAM TO AND CUTTING SCARFS FROM WOOD—Job White, of Belfast, Me.: I do not claim the discovery or invention of the cutting a board from the circular surface of a log by means of a circular or revolving disk with cutters moving laterally; that was patented by me and Phineas P. Quimby, Sept. 12th, 1827. This machine never failed to work with any degree of facility or success, and remained my exclusive property.

Nor do I claim that steaming wood for the purpose of working it is an invention.

But I claim, first, the arrangement of the cams and beam in combination with the feeding gear, by which the perpendicular and rotary motion of the log is made immediately before the cutters, and at the particular time exact feed to continue a circular kerf around the diminishing surface of the log, making a board of uniform thickness.

Second, the mode and arrangement by which I apply steam or heat to a log, in the process of being sawed, by which I am able to apply it to the surface of the log immediately before the cutters, and at the particular time and place required for the work designed; the same result may be obtained by a cast-iron hollow form, by which either steam or heat may be applied to the surface of the log.

WRENCHES—Orin O. Witherell, of New York City: I claim attaching the fixed jaw, B, of the wrench to a handle, which has its extremity made eccentric, by a fulcrum pin, D, and arranging the movable jaw, relatively to said end of the handle, and to the fixed jaw, substantially as and for the purpose set forth.

[By simply pressing against the handle of this wrench in one direction the movable jaw is firmly clamped in its place, and by simply pressing against the handle in the opposite direction, the jaw is set free, and readily adjusted to operate on nuts of any size. It has a spring and lever for keeping the movable jaw in place, and preventing it from shifting while being adjusted. This wrench is very convenient for use, and we regard it a useful improvement.]

CLAMPING CUTTERS—J. P. Grosvenor, of Lowell, Mass.: I claim connecting the collars with each other, or with the core blocks, by means of tongues and grooves, in the manner substantially as described, for the purpose set forth.

R. R. CAR SEATS AND COUCHES—Theodore T. Woodruff, of Alton, Ill.: I claim the combination of the movable and fixed frames on one side of each compartment with the movable and fixed frames on the opposite side thereof, to form each of two depressed couches when unfolded and connected, and which may be converted into two opposite seats when the two movable seats are thrown up and over the permanent frames, substantially as described.

I also claim combining each of the hinged folding backs on one side of each compartment, with each of the corresponding hinged backs on the opposite side of the same compartment, by means of the folding or connecting frames, or equivalent thereof, substantially as described, whereby the same may be used as backs for the seats, or as couches, as set forth.

And finally, I claim forming an elevated couch above the windows by the combination of the two sets of hinged frames, substantially as described, so that when not required to be used as a couch, the two sets of frames may be folded up out of the way, in the manner substantially as described.

R. R. CAR SEATS AND COUCHES—Theodore T. Woodruff, of Alton, Ill.: I claim in combination with the movable frame, g, and the fixed frame, f, substantially as described, the employment of the movable seats at the ends of the several divisions, substantially as described, to give the required number of seats when the couches are not used for the purpose of reclining, as set forth.

I also claim converting the back of the side seats into an elevated seat for the double purpose of a step to the upper or back edge of said back to the side of the car, or to the partitions, e, e, by hinged joints or other equivalent means, and holding it up in the required elevated position by means of catches, or other equivalent means, as described, in combination with the movable frame, g, and fixed frame, f, or any equivalent thereof, as described.

I also claim, in combination with the upper or fourth couch with the car, substantially as described, so that it may be let down, to be used as a couch, or thrown up to the roof of the car when not required to be used, as set forth.

And, finally, I claim in combination with the said upper or fourth couch, the hinged or suspended step, substantially as described, for the double purpose of a step to give access to the said upper couch, when used as such, and as a means of securing said couch when thrown up out of the way, as set forth.

VAULT COVERS—Thomas Floyd, (assignor to himself and George H. Merklin,) of Chambersburg, Pa.: I claim the guides, D, working in grooves, e, in combination with cross bar, f, spring, h, and rod, k, for the purpose of elevating the cover, as described.

I also claim guides, D, in combination with catches or bolts, d, and springs, b, for fastening the cover down, as described.

GRINDING PAPER STOCK—Vespasian O. Balcom, of Bedford, Mass., and Charles H. Hill, of Billerica, Mass.: We claim the revolving pulp tub, E, or its mechanical equivalent, in combination with the revolving grinding roller, G, revolved thereon, at a greater or different speed than this tub.

Also the combination of the revolving pulp tub, E, and friction or evening roller, J, arranged and operated essentially in the manner and for the purpose set forth.

BRAMAH PLANING WHEEL—Edwin Jones, of Greenfield, Mass.: I claim providing the planing wheel with knives for edging or jointing the articles, when arranged as a single instrument, and operating substantially in the manner and for the purpose specified.

COVERING THREAD WITH WOOL—Andrew L. Fuller, of Clinton, Mass.: I do not claim the weaving of quilted, wadded, or padded goods, nor the use of wadding in the loom.

Neither do I claim making the silver of two materials in order to spin a finer round a coarser, or vice versa, as I am aware that is old.

But I claim the described mode of placing the core in the silver, and covering it by the combined action of the comb, B, and condenser, C, so as to produce the silver above described, and this I claim whether a twist be given to the silver or not.

STEERING APPARATUS FOR SHIPS—David W. Smith, of Boston, Mass.: I claim the arrangement of the guard rack and the pinion on the tiller with the main rack, and the pinion of the hand wheel shaft, the whole being substantially in the manner and for the purposes as specified.

CASTING METALLIC TUBES—James Smith Jr., of Norton, Mass.: I claim the method of making the metallic mold core, viz., of removable separate sections or staves, c, d, and a narrow trapezoidal or wedge-shaped spring or core, b, the whole being arranged and operated by rings, g, and plugs, or their mechanical equivalents, and made to operate in the manner substantially as specified.

HAND STAMP—Nathan Ames, of Saugus, Mass., (assignor to the Boston Hand Stamp Company, of Boston, Mass.): I do not claim, in this machine, the principle by which the inking roller, K, is made to pass over the bottom and back of the type block, B, that being embraced in a patent granted to me April 1st, 1856.

But I claim, in combination with the other parts of any stamp to be held in the hand, the leg or wire, D, D, so constructed as to strike the article to be printed in advance of the type block, B, and the other parts of the inking roller, as described, to pass over the printing surface while the latter is descending.

I do not confine myself to any particular manner, as there may be many in which the leg, B, D, may be made to communicate motion to the inking roller. But I claim the leg, D, D, both independently of the inking apparatus, and also combined with it and the other parts of the stamp, in any manner substantially the same as that described.

DESIGN.

PRINTING TYPES—George Bruce, of New York City: I claim this new type Double Small Pica Copperplate Script.

Loss of Silver in Roasting Silver Ores.

Professor Plattner, of Germany, in an article in the *Berg-undhüttenman Zeitung* points out the serious loss of silver in roasting silver ores, to which we would direct the attention of all our silver mineralogists:—

"It has been long known from experience that during the roasting of silver ores and furnace products in a finely divided state, in addition to the mechanical loss of silver through the formation of fine dust, there also occurs a loss by direct volatilization, varying, according to the properties of the ore, from 1 to 10 per cent., and in argentiferous blende, exposed for a long time to a strong calcining heat, amounting to much more. These facts give rise to a question which may be divided into two parts, namely:—1st, How does it happen that in ores containing an equal per centage of silver, but of different qualities and composition, the loss per cent. in silver differs when they are subjected to the process of roasting? And, 2ndly, In what condition is the silver volatilized?

To solve the first part of this question many experiments were made, on a small scale, by

Prof. Plattner, in the following manner:— Various substances, for the most part quite free from silver, were reduced to a fine powder, and mixed with other substances rich in silver, and also in fine powder, in such proportion that the mixture should contain from 1 to 2 per cent. of silver; these were then exposed to the action of heat and atmospheric air, in capsules of clay. For this purpose a muffle was used, heated to dull redness, and most of its openings closed so as to allow of a very moderate circulation of air within it.

The heat was gradually raised until it reached a temperature at which sulphate of copper is slowly decomposed. The substances used to mix with those rich in silver were pyrites, blende, various anhydrous metallic sulphates and metallic oxyds, and finely powdered quartz; those rich in silver were sulphuret of silver, metallic silver, arseniate and antimoniate of silver, all in fine powder. These substances were roasted from three-quarters of an hour to an hour and a half, and then assayed for silver in the usual way.

The results of these experiments showed a loss of silver was occasioned by chemical causes. That a volatilization of silver appeared to take place when the silver in the ore either passed from the state of sulphuret into that of metal, or when the oxyd of silver in combination with sulphuric acid, again suffered decomposition.

The loss appeared to be greatest in light loosely aggregated substances, whose particles had little cohesion, and were readily penetrated by the atmospheric air. The loss of silver was greater when the roasting was protracted, if at the same time the temperature was increased.

That the loss was increased when magnetic oxyd of iron or suboxyd of copper exercised a reducing action on sulphate of silver.

That generally the loss of silver was greater when the silver existing as sulphate was exposed to a protracted roasting at a high temperature in company with free metallic oxyds than when it was present as arseniate or antimoniate of silver. The reason of this is, that the sulphate of silver is decomposed and reduced to metallic silver before either of the other salts, and more particularly before the arseniate, although their behavior at a high temperature is not altogether the same as the antimoniate of silver is very rapidly decomposed, the other two salts more slowly."

To determine the second question he endeavored to volatilize silver by passing a current of hydrogen over it when at a red heat, but no volatilization took place, but with a current of oxygen gas it was oxidized. From the results of his experiments, the conclusion is drawn that the silver which escapes during the roasting is removed at a certain temperature commencing at a low red heat, and mixes with the combustion of the fuel and other gases, and is carried off by them.

Peculiar Characteristics of Meteoric Stones.

There is one character which is peculiar in the meteoric stone, and which proves to be of high significance, viz:—Its substance is composed of various mineral ingredients, which are identified with matters of familiar occurrence upon the earth; but amidst these iron is found in great abundance as it is never found on the earth, that is, in a native or nearly pure metallic and uncombined state. On the terrestrial surface iron is always mingled with diverse matters, from which it has to be extracted by art when it is required as a pure metal. The omnipresent and corrosive oxygen of the air alone prevents it from maintaining such condition long; this rusts and eats it away. Oxygen and iron have so irresistibly strong an attachment for each other that they invariably combine when they are left together. Thus, then, the unoxidized and purely metallic condition of iron in the aerolite proves that it comes from a situation in which there is no oxygen; that is, from beyond the bounds of the atmosphere, and that it is, therefore, altogether un-terrestrial, and affords proof that the nebular hypothesis is not supported by chemistry, for if the moon at one period formed part of the same matter of which the earth is composed, it would have an atmosphere like the earth, but not quite so dense.