



Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING AUGUST 3, 1852

RAILROAD CAR SEATS—By C. P. Bailey, of Zanesville, O.: I claim in combination with a permanent seat or seats, a divided back, which is so constructed, that one part thereof shall swing around one end of the seat, and the other part around the other end thereof, the back always retaining its upright position, and by which arrangement, the two parts of the back may be entirely reversed, or they may be left tete-a-tete, substantially as described.

[See engraving in No. 45, page 356, this volume of the Sci. Am.]

LOOMS FOR WEAVING FIGURED FABRICS—By C. W. Blanchard, of Clinton, Mass.: I do not claim the application of the above-named levers to the trap or knot boards of the jacquard loom; but I claim, first, the opening or raising and depressing the harness by means of levers or bars oscillating about a fixed point or points, in connection with hooks, or their equivalents, which catch upon these levers or bars, and which constitute a part of the connections between the top and bottom jack levers or other devices, for raising and drawing down the harness, thus raising or depressing the heddles in a greater or less degree according as they are more or less distant from the fell or cloth making point, the motions of the harness all commencing and ending at the same time, as described.

I also claim the method, as described, of arranging and combining the parts for moving the figuring chain or cylinder, with the other parts of the machine, so as to carry the said chain or cylinder, back as well as forward as the machine is made to move backward and forward.

PRESSURE GAUGES—By Eugene Bourdon, of Paris, France. Patented in France June 18, 1849: I claim the application of curved or twisted tubes, whose transverse section differs from a circular form for the construction of instruments for measuring, in heating, and regulating the pressure and temperature of fluids, substantially as described.

DUMPING WAGONS—By Thos. Castor, of Frankford, Pa.: I claim the arrangement of the body on a fixed roller fulcrum on the frame of the running gear, in such manner that, by a slight amount of force, the body can be turned, to give its under side, which rests on the roller, either a forward or backward inclination, to cause the weight of its load to tend to hold it forward or back, as it is required to carry or to dump the same, substantially as set forth.

TALLY BOARD—By F. N. Clark, of Chicago, Ill.: I do not confine myself to any particular form or manner of arranging the screw rods over the board; nor to any particular manner of graduating the spaces; but I claim the manner of tallying or keeping an account of articles, as they are delivered or moved by means of screw rods, having nuts upon them, said nuts being placed over graduated spaces, which indicate the distance the nuts have moved, or give the number of turns or half turns of the rods, the rods, nuts, and spaces being arranged as described, or in any manner substantially the same.

CASTING STEREOPLATE PLATES—By H. P. Cook, of Albany, N. Y.: I claim the manner of casting stereotype plates by the application of pressure upon the surface of the melted metal in the inner kettle, which pressure forces the metal, while fluid, through a tube and upon the mould, the face of the mould being turned down to receive the metal, making the casting, the whole acting substantially in the manner and upon the principles set forth.

LOOMS FOR WEAVING FIGURED FABRICS—By S. & J. Eccles, of Kensington, Pa.: We claim, first, the star movers, whether they be arranged to slide, instead of the star wheel, or otherwise, and neutral surface, in combination with the star wheel (sliding or otherwise) arranged substantially in the manner and for the purpose specified.

Second, we claim the pins or pattern plates, or their equivalents, in combination with the diamond shaped projection or four-sided inclined plane lever, and star wheel, arranged substantially as described, for the purpose specified.

Third, we claim the guide in combination with star movers, and star wheel, as described.

Fourth, we claim the combination formed by the mechanism described, for giving a positive and correct motion to the jacquard card cylinder; that is to say, the star mover, star wheel, and connecting arms, with mitre wheels, or their equivalents, as made known; and the above mechanism is also intended to be applied to other description of looms, where lags and other similar devices are used, instead of the cards, as on barrel and other similar looms, therefore the claim is not limited to the turning of a jacquard card cylinder.

ADJUSTING THE CHASERS IN SCREW CUTTING STOCKS—By M. C. Gardner, of Brockport, N. Y.: I claim the adjustable band on which the index is lettered, for adjusting the index to the chasers, the same being adjustable to the wear of the chasers or chasers of different lengths, and in combination with suitable apparatus for causing said chasers to approach and recede from a common centre, for the purposes stated.

And I also claim the shaft, as shown, in combination with pinions, and the bevel gear wheel, at the outer end of which shaft is attached a crank, to drive the bevel gear wheel, as set forth and described, and for the purposes stated.

SCALES FOR WEIGHING—By Wm. P. Goolman & Wm. Holtseclaw, Jr., of Springtown, Ind.: We claim the making of the weighing beam of platform or other balances, or scales with two graduated arms extending in opposite directions from the fulcrum of said beam, and applying one or more movable weights or peas to each of them: the divisions on one arm, indicating the larger divisions of weight, and those on the other, any subdivisions or fractions of the larger that may be desired, substantially as set forth.

JACQUARD LOOMS—By John Goulding, of Worcester, Mass.: I claim, first, connecting the knot and trap boards with, and operating them by levers arranged substantially as described, so that the second row of heddles or harness shall fall and rise so much farther than the first, and the third than the second,

and so on through the entire series of heddles or harness, that as the warp is sprung, the threads in the same shed from each row of heddles, whether front, middle, or back, and whether sprung in the top or bottom shed, all lie substantially in the same plane.

Second, the apparatus which inserts and draws the wires to form the pile, constructed and operated substantially as described.

Third, the devices for locking and unlocking the beam or beams containing the warp, substantially as described.

OX YOKES—By Ezra Hough, of St. Johnsville, N. Y.: I do not claim the slides, independently of their connection, as they have been previously used; but I claim the connecting of the slide, in which the bows are secured by means of the chains and rods, the chains passing over the pulleys, by which neither of the slides nor bows can be moved laterally without communicating a corresponding opposite motion to the other, thus keeping the oxen at all times at equal distances from the centre of the yoke, the chains, rods, and pulley arranged as described, or in any other manner substantially the same.

ELASTIC HORSE-SHOE—By J. O. Jones, of Newton, Mass.: I claim the shoe formed with two plates, between which a sheet of vulcanized rubber, or other elastic substance is interposed, in the manner and for the purpose set forth.

SCYTHE FASTENINGS—By Alpheus Kimball, of Fitchburg, Mass.: I claim to make the fastening bolt of the toe act against the side of the toe, or laterally against the shank, in combination with making it, or the bolt and shank, with the peculiar curved projection and recess, and the flattened face stirrup, or confining contrivance of the heel of the shank, so as to allow of the lateral position of the heel being changed or varied, as specified, whereby the angle of the shank part of the snath and of the blade, may not only be varied to any extent within certain limits, but the toe of the shank as usually made, confined down by other means, than that which operates to secure the shank (at its heel) to the snath.

RE-ISSUE. MANUFACTURE OF BULLETS, &c.—By George W. Campbell, of New York City. Originally patented Nov. 27, 1847: I claim the method of casting bullets, &c., in a succession of connected moulds, is joining them together, so that they shall separately come together in vertical planes at right angles to the line of motion of the series, or nearly so, substantially as specified.

DESIGNS. COOKING STOVE—By Samuel Eberly, of Mechanicsburgh, Pa.

WATER COOLER—By Patrick Molony, of Cincinnati, Ohio.

COOKING STOVE—By Russell Wheeler & Stephen A. Bailey, of Utica, N. Y.

COOKING STOVE—By Garretson Smith, H. Brown, and Julius Holtzer, (assignors to North, Harrison & Chase), of Philadelphia, Pa.

Woodworth Patent.

[Continued from page 374.]

Where an application like this is made for a third extension, it is material to consider the degree of merit in the invention, the extent of remuneration already received, the manner in which the previous bounty of Congress has been applied, the mode in which the power hitherto vested in the applicant has been exercised, the operation of the previous grant upon the public interests, the effect of a new grant upon the rights of other citizens, and the nature and extent of the new burden to be imposed upon the country for a long series of years.

It is not claimed that William Woodworth, in 1828, invented anything more than an improvement in the method of dressing boards by machinery. Planing machines had been for many years in extensive use in the United States as well as in Europe. The inventions of Bentham, Bramah, and Muir, in Great Britain, of Roguin and De Manneville in France, of Hill, Hale, Minor, and others in this country, were known to the world. That many of these were valuable and effective machines, is attested by the fact, that in many localities they are still used in preference to the Woodworth machine; and that by adapting to them the improvements of other recent inventions, the most successful machines of the present day have been produced. The affidavits furnished by the administrator on his application for the first extension, show that the Woodworth invention, for some years after the patent, was a failure in practical operation.—The fact hardly seems to be disputed, that no machine built in conformity with the description in the patent of 1828, ever was or ever could be successful. The fact is undisputed that the valuable features of the present Woodworth machine were first described in the patent of Uri Emmons, which expired and became public property in 1843. The fact is also undisputed that Emmons would not permit his improvements to be incorporated in Woodworth's machine, until Woodworth obtained his consent by uniting with him in a mutual and equal partition of the whole country between them. The fact is undisputed that since the introduction of the features of the Emmons patent into the Woodworth machine, it has become successful and valuable. Long after the death of both the patentees, an attempt was made to prove

that Emmons had no right to what he sold, and that Woodworth owned, before the purchase, the right which he acquired under it. The attempt was successful in the Pennsylvania circuit; but the question is now at rest, having been finally disposed of by the decision of the Supreme Court of the United States in the case of Wilson vs. Simpson, overturning the allegation that Woodworth was imposed upon by Emmons, and holding that the evidence was illegal by which the fact was sought to be established. (9 Howard's U. S. R. 120.) In the recent case of Brooks et al. vs. Fiske et al., decided in the first circuit of the United States, it was held that the Woodworth machine was merely an improvement on the Hill machine. In the circuit court over which Chief Justice Taney presides, the fact was found by the verdict of the Maryland jury, that the patent re-issued to the administrator in 1845, was for an invention different from that secured to his father by the patent of 1828.

That the improvement devised by Woodworth was meritorious is undoubtedly true; but that it is equally so with improvements in planing machines, since made by other inventors, will scarcely be contended. Yet it has demanded and received a larger bounty probably, from the government, than any twelve of the most prominent American inventions in the leading departments of mechanical genius. William Woodworth, the patentee, who best knew how much of the machine was his own invention, did not claim to be the inventor of the combinations which are put forth in the claim of the patent as re-issued to his administrator five years after his death. Indeed, one of the publications left with the committee by the memorialist in support of his application, contains the affidavit of the patentee, made the year before his death, in which he substantially repudiates, as forming no part of his invention of 1828, the very combinations afterwards claimed in the re-issue; and swears that another machine, containing those combinations, which has long since become public property, was no infringement upon the patent. If that patent has since his death acquired an additional value by absorbing all other improvements in the expanded claims of the re-issue, it is rather to be regarded as the misfortune of the country, than the merit of the patentee.

The estimate placed by William Woodworth upon the value of his invention in 1828, the year when he obtained his patent, is shown by his sale to Strong of half the right in the United States for fifteen hundred dollars. In 1842, William W. Woodworth, on applying for the first extension, submitted, in support of his claim, the affidavit of James G. Wilson, estimating the value of the invention at three hundred thousand dollars. The memorialist claims to have sold to Wilson in 1845 the entire right in the United States, except in the city of New York, for the whole extended term of seven years, for fifty thousand dollars. If these practical tests of value are to be regarded, the immense tribute from the public for the first ninety days of the extended term vastly overpaid the whole value of the invention.

The committee felt the importance of ascertaining the extent of remuneration received by the memorialist through sales of rights, and licenses to use the machine under the Woodworth patent; and urged upon him strongly the importance of furnishing this information. The administrator thought proper not to comply with this request of the committee. They might, with entire propriety under these circumstances, apply the rule that when a party possessing the means of knowledge chooses to withhold it, and declines to disclose facts material to the inquiry, every presumption is to be taken against him. But the committee were not inclined to indulge any such presumption, and they accordingly resorted for information to the records of the Patent Office, the various documents before them, and the various papers filed by the memorialist on former applications in relation to the patent.

The abstracts furnished from the records of the patent office show very clearly, that the papers upon which the board acted in granting the first extension, as well as those upon

which Congress acted in granting the second extension, failed to disclose the true amounts which had accrued from the invention. The memorials to the last and present Congress do not assume to give any account of the receipts of the administrator. The memorial to Congress during the session of 1844-5, professed to give an unsworn statement of receipts and expenses, though in a very vague and general form. But this extended only to its date, leaving four years and nine months of the unexpired term of the first extension still to come. For the receipts of this period of nearly five years, no account is given in any of the memorials. Nor is any credit given by the memorialist for the proceeds in damages and costs of those innumerable suits against "wealthy infringers," in which he claims to have been so uniformly successful; though the expense of those litigations is brought in upon the other side as a claim against the government. Nor is any credit given for the enormous sums paid to those to whom the administrator from time to time assigned shares in the public bounty of which he was the beneficiary. Upon what understanding these assignments were made, the committee do not know, except so far as it may be inferred from the continued amicable relations of the parties, the unbroken succession of conveyances through the whole period to the same grantee, and the common exertions of both parties in each instance down to the present time for further grants from government, in the name of the administrator. But even upon the showing of the applicant himself in his various memorials, corrected as to some errors by facts subsequently developed, it would seem that \$52,733 32 had accrued to William Woodworth from the invention prior to his death; and that the amount which had accrued personally to W. W. Woodworth, administrator, prior to June, 1845, including the amount of sales by his father, was \$264,013 32; leaving still unaccounted for, all that remained in his hands of the unexpired term of over four years of the first extension; the reservation in the grant to Wilson, under the second extension, of the city of New York, the most valuable right in the country; all the proceeds of the litigations; all the receipts by himself and his father from the various machines in the running of which they were themselves interested; and all the proceeds of the sale of the re-issued patent, which was granted to Woodworth on the 8th of July following, and conveyed to Wilson on the following day.

Assuming that these were all the returns which had been received from the invention, and that they could be estimated collectively at as low a sum even as half a million of dollars, does it not seem incredible that a further claim should be made upon the bounty of the government? But this is not all.

[To be Continued.]

New Steamers.

Two first-class steamers called the Andes and Alps, are at present building at Dumbarton on the Clyde, for Messrs. Burns, and are intended to run between Chagres and New York. A ship of 2,000 tons is now building in Liverpool, of soft wood, and on the model of the American ships, to prove by experiment in how far English ship-builders can compete in cheapness with Americans. A steamer of 213 tons, named Lady le Marchant, and owned by a company in Newfoundland, was launched at Greenock on the 21st. She is intended to ply along the Newfoundland coast.

Balloon and Steam Engine.

Another attempt was recently made at the Hippodrome, Paris, to solve the problem of steering balloons. A balloon, in shape like a whale, was filled with gas and attempted to be guided by means of a shaft of wood suspended horizontally with a sail at the end, to act as rudder. To this shaft was affixed a platform with a steam engine of four horse power, working a screw with three terminal paddles like three sails of a windmill. The experiment was made in presence of several scientific men, but was unsuccessful.

Some very important experiments have recently been made with anchors, in England—an American one among the number.