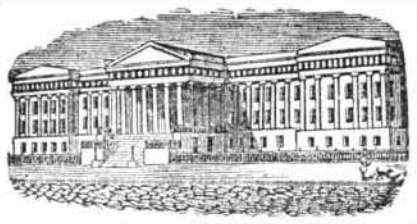

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LIST OF PATENT CLAIMS
Issued from the United States Patent Office.

FOR THE WEEK ENDING AUGUST 12, 1851.

To L. W. Boynton, of South Coventry, Ct., for improvement in machines for cleansing Wool.

I claim the combination of the tub with the shaft and tube, when these are combined with the vat, with its trough, and the whole is constructed, arranged, combined, and operated, substantially as described, for the purpose of cleansing, or for coloring wool, and other analogous substances, as described.

To L. S. Chichester, of Williamsburgh, N. Y., for improvement in machines for Jointing Staves.

I claim combining with the adjacent ends of my two plates of the chain, the hinged pieces provided with self-acting toes for clamping the stave while it is being jointed, and then releasing it, substantially in the manner and for the purpose described.

To M. M. Ison, of Etowah, Ga., for improvement in Spike Machines.

I do not claim the header or the holding die irrespective of their arrangement and operation; but I claim the arrangement of the carrier within the hollow table, substantially in the manner described; and also the combination of a carrier so arranged with a single griping die arranged with respect to it, in the manner substantially as shown, the die and the carrier assisting each other in holding the spike, while being headed.

[See No. 41 Sci. Am, for an illustrated engraving of this improvement.]

To A. S. Lyman, of New York, N. Y., for improved Water Gauge for Steam Boilers.

I claim the combination of the glass tube and a reservoir of fluid below it, heavier than that contained in its upper part with the legs of a syphon, so that they become a part of that syphon, substantially as described, by which means I am enabled to protect the glass tube from the heat of the steam and impurities of the water; and also to show, at any point above the boiler, the height of the water in the boiler.

I also claim the combination with the gauge of the sediment depositor, constructed and arranged substantially as described, for the purpose of preventing the impurities of the water from entering the tube leading to the gauge.

To John McAdams, of Boston, Mass., for improvement in machines for Numbering the pages of Account Books.

I claim the use of type chains in a machine for printing the pages of account books; and, second, a machine for paging account books, having the essential elements herein described, viz., the imprinting cylinders and rollers, against which they bear, together with the type chains, arranged together, substantially in the manner described.

To Hugh Lee Pattinson, of Scotts House, England, for improvement in the manufacture of Pigments. Patented in England, Feb. 14, 1849.

I do not claim this composition of matter; but what I do claim as my invention is the new manufacture of either a white or colored pigment, by the addition of one half of an equivalent of lime, or other earthy or alkaline base, with one equivalent of chloride of lead, or chloride of lead diffused in water, or however the solution may be obtained, the whole being substantially as herein specified.

To Ezra Ripley, of Troy, N. Y., for improvement in method of forming Teeth upon Cast-iron Grinders.

I do not claim the castings of ribs or floats, but I claim the mode, substantially as described, of making or forming teeth or grinders upon surfaces of cast-iron, by nicking, cracking, or chipping out parts of ribs or floats cast thereon, so as to leave the teeth, or grinders projecting, as set forth.

To I. M. Singer, of New York, N. Y., for improvements in Sewing Machines.

I claim giving to the shuttle an additional forward motion after it has been stopped to close the loop, as described, for the purpose of drawing the stitch tight, when such additional motion is given at and in combination with the feed motion is given at and in combination with the feed motion of the cloth, in the reverse direction, and the final upward motion of the needle, as described, so that the two threads shall be drawn tight, at the same time, as described.

I also claim controlling the thread, during the downward motion of the needle by the combination of a friction pad to prevent the slack above the cloth, with the eye on the needle carrier, for drawing back the thread, for the purposes and in the manner substantially as described.

I also claim placing the bobbin, from which the needle is supplied with thread on an adjustable arm attached to the frame, substantially as described, when this is combined with the carrying of the said thread through an eye or guide attached to and moving with the needle carrier, as described, whereby any desired length of thread can be given, for the formation of the loop without varying the range of motion of the needle, as described.

To Francis Wilbar, of Roxbury, Mass., for improvement in Construction of Roofs.

I claim the above described peculiar arrangement of the arched trusses, or framing of my improved roof, in combination with the suspending of both inclined sides of the roof, from the ridge timber, so that each inclined side shall be made to counterbalance the other inclined side, and by so doing operate to prevent lateral and horizontal thrust upon the side wall, all essentially as specified.

To A. B. Wilson, of Watertown, Conn., for improvement in Sewing Machines.

I claim, first, the combination of the rotating hook, to extend the loop on one thread, with a reciprocating bobbin to carry the other thread through the loop so extended, for the purpose of interlacing the two threads together, whether the parts be severally arranged and operated as herein set forth, or in any other way, substantially the same.

Second, the hollowing mandril, constructed substantially as set forth, with a groove on its periphery, to give a reciprocating motion to the bobbin, a segmental screw thread to feed the cloth forward as the sewing progresses, and a hook and groove on its extremity, to form loops on the needle thread, in combination with a reciprocating bobbin, the whole arranged and operating substantiall as set forth.

To J. S. Dare, of Knightstown, Ind., for improvement in Shoulder Braces combined with Abdominal Supporters.

I claim, first, the bars having a common point of junction to a centre bar at the back; passing thence under the arm pits, and thence forward, upward, and backward, until their padded extremities bear upon the clavicle; the bar being so formed as to fit snugly, without direct pressure upon the body, except at the points at the front and back, as herein explained, giving the desired support to the shoulders, without unnecessary confinement of the person or obstruction of its various function, and at the same time affording, through the medium of the bar, a firm point of attachment and support for a uterine or abdominal supporter.

Second, the jointed bar having pads located on each side of the spine, at the junction of the said bar, with the braces (two), the said bar being jointed midways so as to admit of easy flexion sideways, without compromising the rigidity which is necessary in other directions, and affording, by the limited extent of its pressing surfaces, free scope to the circulation, perspiration, muscular action, and other bodily functions.

The steamer Humbolt, on her last passage from Havre to New York, made a very narrow escape from total destruction on Cape Race, by being carried off her course by the current.

French and English Black Broadcloth.

It is well known that English broadcloth, at one time, carried all before it—none other could compete with it. It is not so at present; the French and Belgian are the favorites in the American Market, and the English cannot be sold. The French cloth retains its color until it is worn threadbare, the English grows white in those parts exposed to friction. The superiority of the French cloth is due to an invention in dyeing and finishing, made about twenty years ago. The improvement gives the cloth a silky lustrous surface, soft to the touch, with the nap laid close and smooth, and impervious to dust which can be removed by merely wiping with a handkerchief; moreover, it neither spots with rain nor shrinks by heat; and these qualities continue to exist so long as the fabric hold together. When French cloth began to obtain a footing in the American market, the English maker, instead of attempting to excel in the beauty and durability of the article, endeavoured to compete in cheapness; the evil was thus rather increased than otherwise, for in order to lower the price, inferior materials were necessarily employed in the manufacture, and likewise in the dyeing of the cloth, and thus additional discredit was thrown upon the English fabrics.

The principle of woolen dyeing is very simple, a great deal more so than cotton.

The first step consists in the cleansing and preparation of the wool to receive the coloring matter. Wool, when intended to receive a black of the best quality, is not in the first instance dyed of that tint, but receives a preparatory dye from either woad or indigo, or a mixture of both; this gives the wool the foundation for a permanent color; the after dyeing black by a salt of iron serving, as it were, to modify or determine the tint. The permanency of the black depends upon the depth of color given by the woad or indigo; and here, as well as the finish of his cloths, the English manufacturer has permitted his continental competitors to outstrip him; not from his inferior skill but from devoting his energies to the production of a cheap instead of a superior article.

In England indigo is chiefly employed, but, from its comparative expense can be used but sparingly. Now, as the permanency of the black depends upon the firmness and depth of the blue tint, and as the black derived from iron is in itself extremely attackable by chemical agents, it follows that black cloths in which the blue foundation color has been imperfectly produced, are liable to be affected by exposure to the atmosphere, light and heat. It is found that cloths dyed in France and Germany, where the woad is more used, are but slightly influenced by these chemical agents which are capable of entirely removing black color from the ordinary English cloth.

It appears, then, that there are two capital points in which the British manufacturers have permitted themselves to be rivalled by the French and Germans, viz., with respect to the finish and permanency of the color of their cloths.

Within a few years some of the English cloth manufacturers have devoted much attention to improving the cloth, and with that stamina which is peculiar to them they will no doubt be successful. They have got machines for finishing from both France and Belgium, and have and will make improvements on them. We have seen some samples of the cloth manufactured at Leeds by the improved machinery, and by a superior system of dyeing. The samples were soft, smooth, and of a brilliant black not liable to spot by water. It will be some time, however, before the English cloth manufacturers can win back the good name they have lost. In mechanical and manufacturing operations, it is impossible to be successful unless the utmost attention is given to push along improving.

Steam Communication between New York and Genoa.

A new line of steam communication between New York and Genoa, is mentioned in the English papers as having been organized by Messrs. Livingston, Wells & Co., of the former city. A grant has been made to the company for the exclusive mining of this line for fifteen years, the annual sum of $50,000 being guaranteed for the transport of mails. These steamers will touch at Madeira, where letters or passengers will be transferred to the South American line of steamers, so that it may be looked upon as a double line, both to the south and north of the American continent. The company are also in treaty with the Portuguese and South American governments for the transport of their mails, and are likely to be successful in obtaining them on favorable conditions.

Scientific Memoranda.

Iron Ore—New Discovery.—A valuable deposit of iron ore has been found by Mr. G. P. Smith, on the north shore of Lake Superior, at Groscap, near Michipoten river. Large quantities of iron are found in dikes, so near the coast that it can be wheeled on board a vessel. It is said that thousands of tons may be obtained at that place very readily.—Three men in one day got out five or six tons.

Loss of Speech by Lightning; its Restoration by Galvanism.—The following singular case we find recorded in a Scottish paper, the Glasgow Saturday Post:

On the 1st of July, during the thunderstorm, a man named Raeburn, residing in the Croft, Paisley, was struck dumb. Raeburn, it appears, was standing near a window, when one of the flashes of lightning, more vivid than usual, had such an effect on his organs of speech that he could not articulate a syllable. The advice of several medical gentlemen was obtained, but all to no purpose, and, what was strangest of all, no hurt or defect whatever could be observed. Next day, Raeburn was advised to try what galvanism could effect in his case, and he at once proceeded to Mr. Ferguson's galvanic operating rooms in Sneddon street. Here, after the application for a few minutes of the battery to his neck, he was able to articulate one or two syllables; his joy at this, it may be imagined, was very great; and we are happy to say, that after six applications from the galvanic apparatus, his speech has all but recovered its former fluency. Raeburn is about 23 years of age, and all that he felt at the time he was struck dumb was a kind of giddy feeling for about a minute.

Steam on Canals.—An entire revolution in the process of towing on canals seems likely to soon occur from the success attending an experiment at Albany, with a steam-tug. The Albany Journal says:

"The steam tug 'Jacob Hinds' left the canal basin this morning with a party composed of the Comptroller, the Auditor, Canal Commissioner Mather, several members of the press, and a number of other gentleman interested in canal navigation, on an experimental trip to Troy.

The tug is intended to be used for towing on the canal. It has 75 feet keel, 15 feet beam, draws 2½ feet water, and is propelled by an engine of fifty horse-power. The engine was built by Lowe & Co., for R. S. Dennie & Co.

The wheel in the centre of the boat is 10 feet in diameter, 6 feet face and 2 feet dip. The buckets are of iron, and saucer shape, thereby throwing the water into a narrow chamber, through a groove in the bottom of the boat. There is no swell caused by this motion or no more than is produced by any other boat of the same size moving at the same speed.

Her movement was at the rate of five miles an hour. It is proposed to tow boats at the rate of three miles an hour. The manufacturers guarantee that the engine will perform this amount of labor for 24 hours, with two tons of coal. This invention was patented by Mr. G. Parker, in 1849, and the the boat is now under his charge on her way to Buffalo."

We do not see any reason why steam cannot be used on our canals. With the Erie Canal fully enlarged, and its banks well walled up, boats, like the above, may work as well as on our rivers.