



Our weekly List of Patents and Designs contains every new Patent, Re-issue and Design emanating from the Department, and is prepared officially, expressly for the Scientific American, and for no other paper in the city, consequently other journals are obliged to wait the issue of the "Sci. Am." in order to profit by the expense to which we are subject, and of course must be one week behind. Those publishers who copy from this department in our columns, will, in justice to us, give proper credit for the same.

#### LIST OF PATENT CLAIMS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending June 18, 1850.

To E. Bookhout & H. Cochen, Jr., of Williamsburg, N. Y., for improvement in machines for finishing morocco.

What we claim is, first, a sliding head with finishing tools, one or more attached, said tools to be held down by weight or springs; said sliding head to do its work while in a backward and forward motion, and running on straight ways, as herein set forth.

Second, we claim as our invention the application of one or more clasps, for the purposes described, in combination with one or more finishing tools, whose motions are parallel with said clasps.

We also claim the application of one or more finishing tools which are held stationary while rubbing the skin or paper and allowed to revolve a little when required to equalize the wear on the peripheries of the same.

To Z. Breed, of Weare, N. H., for improvement in spring-teeth of hay rakes.

I claim the construction of the spring teeth of the hay rake of a double wire, in place of the single one generally used, as described in the specification.

To J. M. Brown, of Bloomfield, Ohio, for improvement in attaching neck-yokes to poles of carriages.

I do not claim the universal joint merely of itself, but I claim as my invention the mode herein described of constructing the neck yoke, either solid or divided, and fitting the tongue or pole of the carriage, and these so constructed and fitted, in combination with the movable band on which are projections or knobs, by which means the whole are securely connected, and thus form a universal joint for the purpose stated, and not otherwise.

To G. Chilson, of Boston, Mass., for improvement in Parlor Stoves.

I claim the arrangement of the fires, in combination with the fire chamber, substantially in the manner and for the purposes set forth.

To E. H. Collier, of Scituate, Mass., for improved method of making nails by rolling.

I claim the auxiliary furnace, in combination with the machinery for rolling nails, &c., as above described for retaining the heat of the plates or rods of iron, while they are separately passed into the machine.

To R. Eastman, of Concord, N. H., for improvement in machines for dressing stone.

I claim dressing stone by means of chilled cast iron burrs, substantially as herein set forth.

To B. Fowler, of Lubec, Me., for improvement in furnaces for calcining gypsum.

I am aware that apparatus for various other purposes, has been divided into several chambers with various arrangements, and that beams and slides of various forms have been used, and that tubes have been used for conducting and encouraging heat, I therefore do not claim either of these as such, as my invention, but what I claim as my invention is the combination of the pan, or boiler, with the three chambers, when they are combined with the beams, slides and dampers, when the whole is constructed, arranged, and combined, so as to operate substantially according to the method, and to effect the purpose, substantially as herein described.

To A. M. George, of Nashua, N. H., for improved Spike machine.

I claim, first, the rising and falling guide and cutter frame, in combination with a moving series of dies whereby the spike rod is

guided into the moving dies and a slip of proper length cut off to form the spike, the knives being operated by levers which force them towards each other whenever the movement of the frame brings the levers in contact with stationary arms projected from the main frame.

Second, the forked and hinged clamp, constructed substantially as herein set forth, in such manner that when open its inner fork forms the office of a gauge, to regulate the length of the spike, and when closed its outer fork grips the shoulder of the spike during the heading, and its inner fork is withdrawn to allow the formation of the point.

Third, the combination of the arm, with the clamp, and its tongue by means of which the heading, gripping and pointing of the spike are effected substantially as herein described at one operation.

To L. Gilbert, of Boston, Mass., for improvement in upright pianofortes.

I claim, first, combining with each of the standards of the frame—a sustaining and strengthening rod, arranged in a curved groove in the back of said standards, and operating substantially as herein above described.

Second, I claim connecting the stem to the rocker bar, fastened to the key lever, as described, and also the horizontal arm on which the jack, &c., is supported, by which the whole action becomes attached to the key lever, and the hammer is made to return when the end of the key lever descends, all as herein above set forth.

I also claim combining the catch with the fly of the jack, as above set forth, and in combination with a jack and back catch, so arranged, the curved arm projecting from the hammer stem, and having a regulating button connected to said arm, as above set forth.

Lastly, I claim regulating the throwing off the hammer from the strings by the projection from the centre block of the hammer and below its centre of action, in combination with a regulating button passing through the fly of the jack.

To B. K. Maltby, of Cleveland, Ohio, (Assignor to Ira M. Mead, of Mogadore, Ohio, for improvement in apparatus for raising the grate in cooking-stoves.

I claim the apparatus for lowering and raising the grate, so constructed as to act without liability to obstruction from the baking of ashes between the parts of machinery, having sliding pieces or racks furnished with perforations instead of cogs, in combination with pinions acting upon them by cogs, said pinions having the spaces between the cogs beveled, bringing them to a kind of edge, thus admitting no flat spaces to intervene where ashes may accumulate to prevent the working of the machinery.

To W. W. Marston, of New York, N. Y., for devices for moving and holding a piston breech-pin.

The several parts used herein, being all well known, I do not intend to claim any one of them herein as my invention, but I do claim as new and of my own invention, the arrangement of the parts described and shown, in which arrangement the radius bar is connected to the rear end of the sliding breech-pin, by a tenon and slot, taking a pin on the jaws, at the rear end of the breech-pin, for the purposes of holding the breech-pin in place while the charge is exploded, removing the breech-pin to receive successive charges, and forcing the charge into the barrel by replacing the breech-pin for the next successive discharges, the whole constructed, arranged and acting substantially as described.

To N. Post, of East Cleveland, Ohio, for improvement in Safety-stirrups.

I claim the safety bar, and the spring arranged in the form set forth, or in any other form, substantially the same in principle.

Second, the arrangement of the loop cap, by which I place the stirrup bars at right angles with the stirrup strap.

Third, the flat bar rising from the top of the loop, to prevent the rolling of the stirrup in the strap.

To J. Sherlock & Wm. Brackbill, of Portugal, Pa. for improvement in feed apparatus for mills.

We claim the feeding apparatus, as described, for keeping a regular supply constantly fed to the grinding surfaces.

To A. Smith, of West Farms, N. Y., for improvements in apparatus for parti-coloring yarn.

I claim the method substantially as herein

described, of parti-coloring yarns by winding them on reels arranged in frames so constructed as to admit of immersing in dyeing liquor such portions of the yarns as are desired to be dyed and shifting the same for dyeing other parts in like manner, substantially as described.

And I also claim connecting one or both of the reels in each frame by means of slides, to admit of removing the reel from contact with the yarns, whilst in the process of dyeing, substantially as specified.

To J. R. Stafford, of Cleveland, Ohio, for improvement in mills for grinding.

I claim the combination of crushing rollers with a disintegrating apparatus, arranged and operating substantially in the manner and for the purpose as herein set forth.

To J. F. Wood, of Homer, La., for combination of a guide tooth with an inclined scraper.

I claim the guiding tooth or revolving cutter combined with the inclined scraper, substantially as above stated, for regulating the course of the machine.

#### DESIGNS.

To E. P. Penniman, of Rochester, N. Y., for design for stoves.

To J. F. Rathbone, of Albany, N. Y., for two designs for stoves.

To J. Wager, David Pract & V. Richmond, of Troy, N. Y., for design for stoves.

#### Manufactures in the United States.

A recent number of the London Globe contains a splendid article on the present depressed state of "American Manufactures," which is corroborative of all the ideas we have thrown out upon this subject, the root of which is "the imperative necessity of northern manufacturers making finer goods if they would hope for success." The present state of northern manufactures is attributed justly to the high price of cotton. It says, "it is only in the production of that description of goods into the market value of which the cost of labor, of skill and of capital, enter most sparingly—in other words, of such fabrics as may be classed nearest to the raw material—that the American manufacturers can compete with us. These, when required for a voyage to China, as well as when wanted for consumption in the States, may be had there about as cheaply as they can be brought from England.

But this advantage, resting wholly on the price of the raw material, is, of course very seriously affected by a failure of the cotton crop. Such a failure is of comparatively small importance to manufacturers who are increasing ten-fold the value of every pound of cotton they take in hand. To double the price of the raw material is, to them, only to increase the cost of the finished fabric by one-tenth and the check to consumption, and to demand, coming of the rise in price, they feel in proportion. To the manufacturer who is turning out the cotton only three times as valuable as when he receives it, the effect is to make a rise of the selling price, in the proportion of four to three, absolutely necessary to prevent loss.—And it is hardly necessary to say that a rise of 33 per cent on coarse goods is likely to check their sale much more than a rise of ten per cent. would check that of goods of a finer description. Similarly, the maker of fine cutlery cares little for a rise of 50 per cent. in the price of iron; but it may stop the business of the maker of heavy goods, and even ruin contractors for large works in cast iron.

The precarious position of the New England manufacturers is further illustrated by the recent growth of rival factories in the Southern States. It is said that there are now nearly a hundred cotton mills at work in the four States of Georgia, Tennessee, South Carolina, and Alabama; and the number is increasing. We can very well believe it. It is not improbable—seeing that the only natural advantage possessed by the New England manufacturers are almost equally within the reach of their Southern rivals, that two-thirds of the manufacturing of cotton capable of being carried on within the Union, at a profit, will within a few years be carried on in the Southern States.—The latter have cheap labor, for they have slaves. On the other hand, slave labor has never yet been extensively, or systematically, combined with any appreciable degree of me-

chanical skill. If the Southern planters contrive to carry on with it any but the rudest and most simple process, they will develop an entirely new phase in the history of slave labor. Yet within its limited range we do not doubt that they may make up, more cheaply than it has yet been done in the New England States, the greater part of the heavy fabrics hitherto made there at a profit.

To us, in Old England, however, we firmly believe that the issue of this contest, or of anything the American people may do to contravene the natural course of trade by protective duties, is of very little consequence. It is only with regard to the operation; and only as to a small proportion of these; such, namely, as to which the natural advantages we possess (with regard to capital, skill, and labor, balanced against their advantage upon the raw material and cost of carriage) are the smallest—With the most highly manipulated goods they have no chance of success, and were they to increase their protective duties five-fold—if only because the cost of evading duties levied on frontiers like those of America, must always be low, especially for goods of small bulk and weight, not easily damaged in transit.

That the Americans can make some cotton goods cheaper than we can is clear—for they meet us with some in foreign markets. But is their advantage in the fabrication of the coarsest and heaviest kinds of cotton goods, founded as it is upon a fair natural advantage, to be regretted? We think not. Quite the contrary."

[On another column of our paper will be found a huge list of cotton factories now in the South. These can and do make coarse goods cheaper than our northern factories, consequently they will overthrow the coarse goods manufactures of the North. Believing this to be true, we dissent from the views of the London Globe in respect to the manufacture of finer goods. The success of a few factories which we might name, in the manufacture of finer goods than the general run of such fabrics, is a sure evidence to us of still greater success in the manufacture of much finer goods. The monopoly of the best raw material for this purpose, is as necessary as the extra labor and finer machinery required to produce qualities of goods, to compete successfully with Manchester and Glasgow.

#### A New Form of Mesmerism in Clocks.

It is said that certain clock makers at Bristol, Connecticut, in making some chronometers lately, found it impossible for the workmen to keep awake when they were setting the instruments agoing. It is necessary, in regulating them, to count the beats in a minute by a regulator, change the hair-spring until both go nearly in time; then the screws in the balance are turned until the greatest maximum is obtained, when they are rated and the rate registered. The workmen find no difficulty with the parts, but when the whole movement is going, any person who sits down and counts the beats, or watches the motion of the balance, invariably becomes drowsy. Attempts have been made with other clocks, but they do not produce the same sensation. The clocks are of polished work, and gilded by a peculiar galvanic process, which, if the facts be as here stated, may have something to do with the effect. What is curious is, that the person who is put to sleep continues to count the beatings of the time with his hand or foot.—[Ex.

#### Strength of the Sword Fish.

Another illustration, says the New Bedford Mercury, of the well known power and agility of the sword fish, the formidable enemy of the whale, was discovered by the workmen engaged in repairing the brig Leonidas, whaler, at this port, a day or two since. In searching for the cause of a leak which had occurred during her last voyage, it was found that the side of the vessel had been penetrated quite through, including the copper sheathing and two thicknesses of solid oak plank, not less than five inches; by the sword of one of these fish. The sword was about twelve inches in length, and had produced a seam by splitting the plank at its entrance. It was broken off smoothly at the side of the vessel.