

New Inventions.

Peck's Improved Door Spring.

The best spring that we have ever seen for doors is one invented by Mr. Thomas Peck of Syracuse, N. Y. who is now in this city for a short time, to introduce his invention—It is so made that the tension of the spring can be regulated for the lightest and heaviest doors by simply screwing up or loosening a barrel spring, which is encased in a small iron box and fixed on the door. Through the middle of this box there passes a spindle to which one end of this spring is fastened, and the other end is fastened to the side of the box. This spindle has two square shoulders, so that the spring may be transferred in a minute to answer for a right or left hand door. The traveller is a small (with a pulley on one end of it,) which is fitted upon the shoulder of the spindle and the pulley by the opening and closing of the door, moves along a stationary curved rail fixed on the lintel of the door. This curved rail is so shaped that the door is made to move quite free, having the speed regulated to prevent jarring, &c. One can be seen at our office.

New Corn Sheller.

Quite a number of Corn Shellers appear to have been recently invented and among the rest we perceive one named Gordon's, which has recently been exhibiting in Louisville, Ky., and praised as being superior to all others for a hand machine. It is made to clean the corn, separate the cob and impurities from the clean, and measures the quantity it shells in a sack filling it up as discharged from the spout.

Machine for Reducing Wagon Tyres.

Some of our Western exchanges speak highly of a machine recently invented by Mr. W. Matthews, a blacksmith of Green Co., Illinois, for reducing the size of wagon tyres, bands, &c., cold and without cutting and re-welding. We are not in possession of a description so as to understand it fully, but if it accomplishes what it purposes, it must be valuable indeed.

Harness Relief Spring.

The Maine Farmer states that Mr. S. Spokeman has invented a new way to relieve sudden jerks and weight upon horses' backs, which we consider to be an excellent thing. Under each shaft is fastened an elliptic spring, the centre of which is connected to the lower ends of the staple, which passes freely through a hole bored in the shaft and connects with the chain that passes over the back. This affords relief to the back of the horse, by letting the load come down gradually and gently at each jolt, and not suddenly and violently as in the common mode.

New Method of Engraving.

Two Germans in Philadelphia have discovered, it is reported, a new method of engraving upon stone, said to be simple and good.—The design is first to draw upon stone, then submit it to the action of a chemical preparation which eats in the pencilled design in a few hours; the engraving is stereotyped in the usual manner and blocked ready for use.

This invention will not affect wood engraving yet, for it is very evident that the stone will require touching with the graver also

Munger's Water Wheel.

We have been informed that the water wheel of Hiram Munger, of Manchester, N. H., is rapidly finding its way throughout the United States, and giving great satisfaction.—Mr. Munger took the proper course of publishing his invention in the Scientific American, and thus bringing its merits before the public.

BOOK BACKING MACHINE.

The art of Backing Books is one of no small physical labor when performed by hand, and it is one which is both tedious and troublesome. To lessen this severe labor on the one hand and to quicken the operation on the other, so as to produce work at a cheaper rate, and equally as good as by hand, Mr. William Leighton, of Portsmouth, N. H., invented and patented the machine which we here introduce to our readers.

The nature of the invention consists in a sliding horizontal bed or plate having a rack on its under side worked by a cog pinion on

an axle. The books to be backed, or rather to have their backs pressed and formed—are placed on the book bed, then covered with a platten plate and carried under pressure rollers and submitted to a severe downward pressure close to the book backs, while at the same time a grooved circular plate pressed by a spring is carried along with the horizontal book bed, pressing the backs of the books sideways, giving them the particular form desired, pressing out all the wrinkles and doing more work than four men, and can be attended by a boy or girl.

Figure 1.

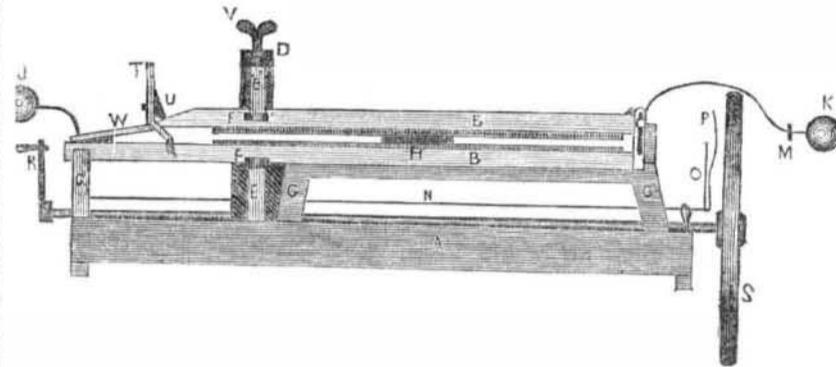
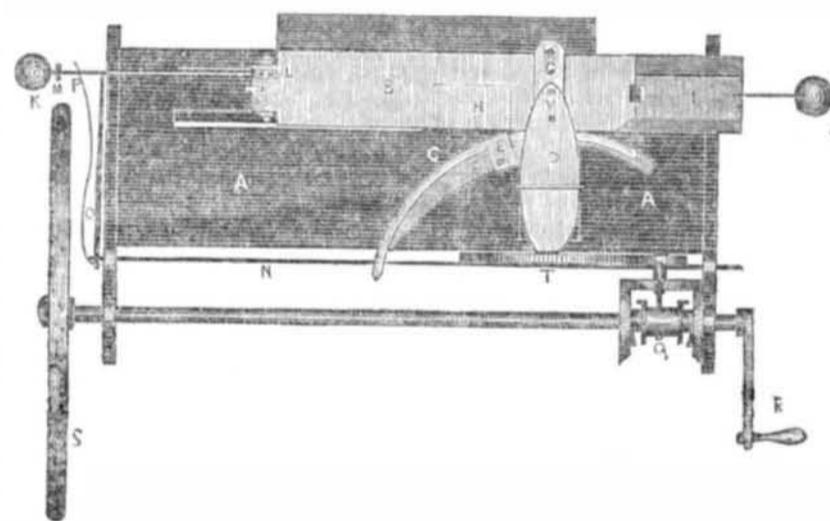


Fig 1, is a front elevation. A, is a bed plate made so as to be screwed upon a table. B B, is the platten and book bed. The platten is represented as covering a book H, placed between the book bed and it. K, is a weighted lever on the end of the platten, which, when the platten is not under the pressure rollers weighs one end down and the platten opens up like a jaw so that the books may be taken out or put in. The book H, is now represented as being carried under the pressure rollers which are placed in the inside of a strong cross head D, which will be better understood by looking at fig. 2. V, is a screw, one or more may be used for regulating the distance or space between the pressure rollers and the book bed—and thus regulate also in a very simple manner the pressure required for each size of book. E E, are two standards, the one fixed on D, and the other on A. F F, are two friction wheels which roll upon and press the side of the platten and the book

bed. G G G, represent an elevated railway for the book bed to slide on with its rack in the space between the two rails. R, is the crank for moving the main shaft, and S is a fly wheel on the other end of it. N, is a clutch rod for changing the motion of the book bed, carrying back the book when sufficiently pressed (self acting.) This is done by M, a nut on the lever of the platten, which can be set at any point, and which as the book bed and platten is carried under the pressure rollers the desired distance, strikes P O, a spring on the clutch rod, and the pinion which moves the rack is reversed in motion, likewise the book bed. U T, is a catch for holding the platten down upon the book and the distance to catch is regulated by a set screw so as to suit any thickness of book. W J, is a small weighted lever which can be shifted at pleasure for holding the catch. There is another kind of catch, however, which dispenses with the use of the weight and lever J W.

Figure 2.

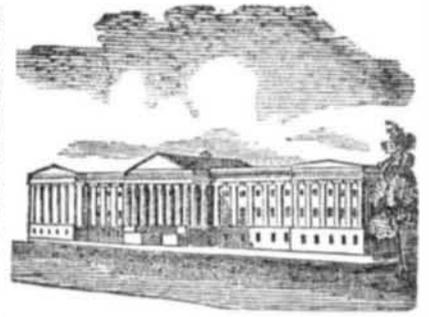


This is a top view or ground plan. It shows the mode by which the horizontal book bed is changed in motion by the clutch rod N, when struck by the nut on the end of the platten, shifting the clutch at Q, and reversing the motion of T, which drives the pinion shaft that operates the rack on the lower part of the book bed. This manner of shifting or reversing the motion is well understood by any mechanic. A A, is the bed plate, and D the cross head, in the inside of which are the pressure rollers. This view shows the form of the cross head. V, is the regulating screws seen best in Fig. 1. G, is the lower part of the cross head, in which the friction wheels are placed. The pressure rollers can be shifted up and down by a set screw as may be desired—in fact every item seems to have been considered by the inventor to make this a perfect machine. C, is the grooved circular plate that forms the back of the books. F, is a curved rail on which it slides in the inside

of a guide E, where there is a spring with its tension toward the back of the book pressing the grooved plate. This circular backing plate catches the back of the book or books and moves along with the book bed and platten under D. There are different grooved plates which can easily be shifted to suit every size of book.

The book or books to be backed are placed on the book bed and covered with the platten, then they are carried under the pressure rollers, and the book backed and finished. This machine will no doubt entirely supersede hand labor, and come into general use.

Munn & Co. are the appointed Agents for the sale of rights. All information desired of price, construction, sale, &c., can be obtained by addressing letters, post paid, to this office. Those who wish to make a good and profitable investment in a really valuable patent, have now an opportunity of no common kind presented to them.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending August 29, 1848.

To William and Thomas Schnebly, Hagers-town, Md., for improvement in Rotary Steam Engines. Patented August 29, 1848.

To John Anderson, of Phoenixville, Penn., for improvement in machinery for straightening Rail Iron. Patented August 29, 1848.

To J. and C. Beach, of Canton, Conn., T. Beach, of Springfield, Mass., and W. G. R. Mowry, of Smithfield, R. I., for improvement in machinery for cutting and preparing flax, &c. for Carding. Patented August 29, 1848.

To James Bogardus, of New York City, for Sun and Planet Horse Power. Patented August 29, 1848.

To John Mackey, of Napanock, N. Y., for improvement in machinery for dressing Axes, &c. Patented August 29, 1848.

To William Fife, of Philadelphia, Penn., for improvement in Metallic Pens. Patented August 29, 1848.

To Francis Kelsey, of New York City, for improvement in Mill Stones. Patented August 29, 1848.

To William Easby, of Washington, D. C., for method of converting fine coal into solid lumps. Patented August 29, 1848.

To Henry Clark, of Eutaw, Ala., for improvement in the Cotton Gin. Patented August 29, 1848.

To John and Thomas McLaughlin, of Kensington, Penn., for a method of converting rectilinear into rotary motion. Patented August 29, 1848.

To George Dryden, of Worcester, Mass., for improved Turn Table, (for Railways.)—Patented August 29, 1848.

To Abel Hawley, of Milwaukee, Wisconsin, for a Floating Excavator. Patented August 29, 1848.

To James Maull, of Philadelphia, Penn., for improvement in the manufacture of Canvas for Sails. Patented August 29, 1848.

To Horatio Allen, of New York City, for improved Cut-off. Patented August 29, 1848.

To Jordan L. Mott, of New York City, for improvement in Cooking Stoves. Patented August 22, 1848.

To Cornelius Hurst, of New Orleans, La., for improvement in Steam Cotton Presses.—Patented August 22, 1848.

To Collins Co., assignee of Elisha K. Root, of Collinsville, Conn., for improvement in machinery for Dressing Axes. Patented August 22, 1848.

DESIGNS.

To Whitney and Montagna, assignees of James H. Conklin, of New York City, for Design for Stoves. Patented August 22, 1848.

To Thaddeus Fairbanks, of St. Johnsbury, Vt., for Design for Pedestal for Balances. Patented August 29, 1848.

To A. C. Barstow, of Providence, R. I., for Design for Stoves. Patented August 29, 1848.

To Charles W. Warnick, of Philadelphia, Penn., for Design for Stoves. Patented August 29, 1848.

Particular Notice.

Readers of the Scientific American are referred to an advertisement of our Patent Agency which will be found in another column.

Engine attached to the Boiler.

We have for sale a new and beautiful two horse engine and boiler, made in the most compact and substantial manner. The engine is attached to the boiler and is moved with it. Such is its compactness that the whole could be lifted on to a cart and fired up. We will dispose of it for the small sum of \$250.