



New Inventions.

New Cloth Measurer.

Mr. A. A. Erskine, of Eaton, Madison Co., N. Y. has invented a new and simple apparatus for measuring and rolling narrow cloth at one operation. The cloth is taken from the press and placed upon a cushion in the machine, from which it passes to a drum one yard in circumference where it is measured, and passes thence among friction bars to a shaft where it is rolled up in a nice square roll ready for the market. While it is being measured and rolled up the papers are deposited upon a shelf in a nice compact pile.—This machine saves all the time generally bestowed upon cloth after pressing, except starting the machine and registering the number of the piece and number of yards, for it may be left with perfect safety to perform its work. It has been used about six weeks, during which it has been examined by manufacturers and others and approved by all. It is very simple and can be got up in good style and warranted to work well, for fifty or sixty dollars delivered without transportation. Measures have been taken to secure a patent.

New Screw Driver.

We have received drawings from Mr. L. V. Badger, of Boston, of an improvement in Screw Drivers, which we think is valuable and exhibits not a little ingenuity. It is a plan of a driver for screwing up large screws and gives all the power that is required for that purpose, something which the common screw drivers lack, unless they are made too large for quick and neat workmanship. We may be able to present at some future period an engraving of this neat and convenient tool.

Improvement in Sawing Machines.

Mr. Daniel Woodbury, of Perkinsville, Vt., has invented a machine for irregular sawing, such as circles and bevelled work and for cutting timber for ship building, which from its great simplicity and apparent utility, we consider to be very valuable. It is not so complex as Cochrane's and it requires no great expense to attach it to any sawmill. The bevel is regulated by a moveable circular frame and bevels can be cut to any degree with the utmost accuracy.

Steam for Extinguishing Fires.

Some experiments have been made this and last week in Williamsburg near this city, to show the superiority of using steam in place of water for extinguishing fires. Mr. S. Broadhead is said to have a patent for this discovery and the experiments were to test its merits. A large tar barrel was filled with combustible materials and set on fire, being well supplied with air through holes bored in the sides. A tube from a steam boiler under a pressure of sixteen pounds conveyed the steam through a hole in the bottom of the burning barrel and the flames were instantly extinguished.

The invention is ostensibly for extinguishing fires in vessels and the patentee's plan is to distribute tin tubes through the steamer, any one or more of which may be connected with the vessel's engine, and made to throw a head of steam into any part where there is fire, or where it is supposed to be, if its actual location cannot be ascertained. The cost of fitting up a large ocean steamer with an apparatus for instantly drowning out of fires in any part of her, is estimated at \$300.

The principle of superiority in steam over water for extinguishing fires lies simply in the sudden expansion of the compressed steam, a principle long known and frequently experimented with for this purpose, but with very faint hopes of being extensively adopted.

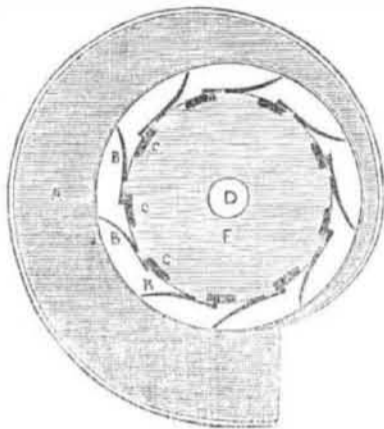
Stannate of Tin.

Mr. Church Greenwood, of Lancaster, England, has taken out a patent for some new chemical agents to be used in the dyeing and

printing of cotton and woolen fabrics. Two of these agents are stannate and stannate of tin. The stannate is made by putting into an iron crucible heated to a low red heat 22 lbs. of caustic soda, 8 lbs. of nitrate of soda and 4 lbs. of common salt. The mixture is gradually raised to a fluxing heat and when deflagration takes place 10 lbs. of *dropped block tin* is added and the whole stirred with an iron rod. This compound when cool is powdered for use or it is evaporated and crystallized and has only to be dissolved to make one of the best mordants ever used.

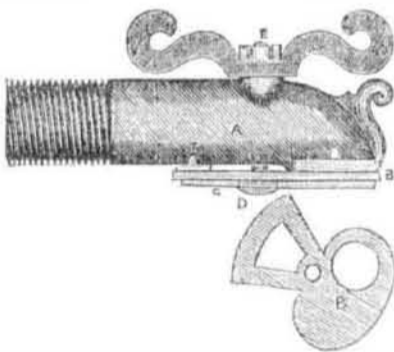
Another process is to take 4 lbs. of common salt, 13½ lbs. of sal soda and 1 lb. of nitrate of soda. These are to be raised to a red heat in an iron crucible and 4 lbs. of the *dropped or foliated block tin* added. These salts make most excellent dyer's liquor and we hope to see them adopted in our manufactures.

Teller & Dillenback's Improved Water Wheel.



This is a sectional view of Messrs. Teller & Dillenback's Moveable Bucket Reaction Water Wheel. This wheel was described and its principle explained in No. 18 of this volume of the Scientific American. This engraving gives the exact shape and position of both the stationary and moveable buckets in combination. It is a vertical wheel and the water is admitted through the scroll A. D, is the shaft. B, represents the stationary exterior buckets and C, the *vanes* or slides that can regulate the discharge. It will therefore be distinctly observed that the speed of the wheel can be kept up at the same rate by always having the scroll full, although the quantity discharged may be varied as desired. This is a most important improvement in having a uniform speed, although there may not be a uniform supply of water.

Improvement in Faucets.



This is an improved Faucet invented by Jeremy W. Bliss, of Hartford, Conn. Its value and importance will be fully understood by the following description of its mode of construction and operation.

B, is a valve working under the mouth of the crooked nosed pipe A. D, is a hub, in which is secured a bolt, extending through the pipe and handle or thumb-nut, and tightened by a nut at E. F, represents an inclined plane or wedge, connected with the pipe, which serves to compress the valve against the mouth of the pipe, when closed. C C, represent ribs on the under side of the valve, for strengthening the same. The valve is worked by the handle or thumb-nut.

Measures have been taken to secure a patent on the above.

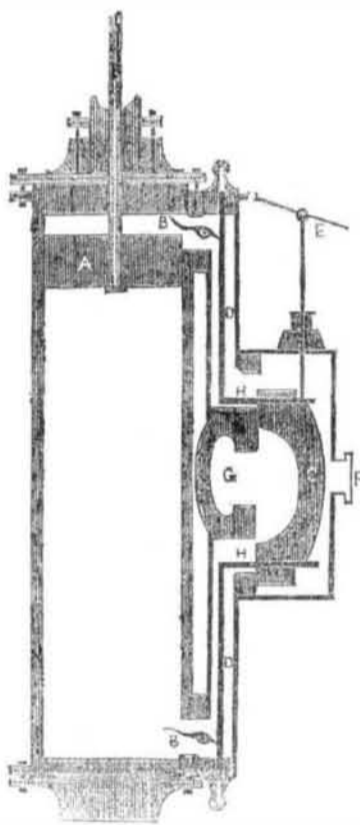
Wheat Dibbling Machine.

Mr. Conway, of Warrington, Lancashire, England, has invented a machine for dibbling wheat so as to supersede the broad cast sowing. It is generally admitted by practical

men that dibbling or setting wheat is not only the best, producing the most profitable crops, but effects a great saving of seed. The only objection against dibbling, as compared with the present system of broad cast, being the amount of labor absorbed. Much opposition has been manifested by the working classes of England against his machine, as it performs more work than thirty men by hand dibbling, but it seems that although it does a great deal of work it requires much attention. At a public meeting in Warrington Mr Conway, by the aid of his machine, performed in twenty five seconds as much work as took two expert dibblers seven minutes and a half—thus proving to a demonstration that it would do all that the inventor promised. The meeting was quite astonished at the novelty and easy working of the machine, as it requires no stooping, the man working it while standing in an upright position. After inspecting the machine, the meeting came to the following resolution: "That it is the opinion of this meeting that the wheat dibbling machine invented and constructed by Mr. Conway, will answer in a remarkable degree all the purposes for which it was invented, and is a very important improvement upon the present system."

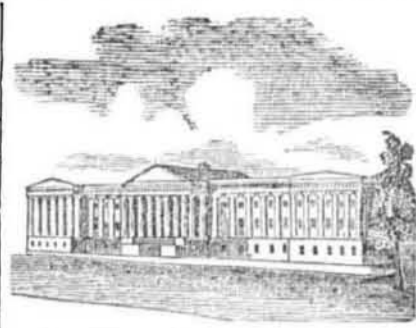
Such a machine, however, could not be profitably used in America, broad cast is more profitable by far here than all the benefits derived from dibbling.

Lever Valve Engine.



This engraving represents the mode of operating the valves of the engine referred to in a previous number of the Scientific American. It is the invention of Mr. William Mack of Canandaigua, N. Y. who has one engine of four horse power in operation. We mentioned before that measures had been taken to get a patent. This engraving represents a single valve and explains the principle fully.

A, is the piston working in the cylinder and the piston rod through a stuffing box B, are staples that operate the lever D and valve C. It will be observed that when the piston A strikes B, the connecting rod D immediately operates the valve C, by sliding it down when the steam is exhausted by the channel H, and it escapes through the opening G. F, is the induction or feed pipe that admits the steam into the steam box by which it is immediately applied to the piston, as represented in the engraving. The passage for the feed and exhaust are much wider than those in common use—this is a necessity for the play of the lever staples B, which are screwed fast in them. E, are levers for reversing the motion, which can be done with great ease and speed. The valves themselves or itself, is the common slide valve principle, the most simple and best valve of all, and just remove the pressure of the steam altogether from acting on it but in the one direction, and it is perfect.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending March 28, 1848.

To David Bruce, Jr. of Williamsburg, N. Y., for improvement in Type-smoothing Machines. Patented March 28, 1848.

To Edward Kellogg, (administrator of Geo. C. Kellogg, deceased,) of New Hartford, Conn. for improvement in Wool Pickers. Patented March 28, 1848.

To Edward S. Blake, of Allegheny Co., Penn., for improvement in Electrical Machines. Patented March 28, 1848.

To Benjamin F. Shelabarger, of Mifflintown, Penn., for improvement in Joiners' Planes. Patented March 28, 1848.

To David George, of Granville, Ohio, for improvement in Hollow Augurs. Patented March 28, 1848.

To James R. Stafford, of Cleveland, Ohio, for improvement in Cooking Stoves. Patented March 28, 1848. Ante-dated Sept. 28, 1848.

To William M. Gooding, of Newark, N. J. for improvement in Wrought Nail machinery. Patented March 28, 1848.

To William Blage, of Sharon, Ohio, for improvement in fire and weather proof compositions or Artificial Slates. Patented March 28, 1848.

To Lewis Tupper, of Genoa, N. Y. for improvement in Washing Machines. Patented March 28, 1848.

To Sylvester M. Pye, of Acquackanock, N. J., for improvement in Fastenings for Doors.—Patented March 28, 1848.

To Isaac Knight, of Baltimore, Md., for improvement in the running gear of Railroad Car Wheels. Patented March 28, 1848.

To Elijah Murray, of Paducah, Ky., for improvement in Windlasses. Patented March 28, 1848.

To J. Bishop Hall, of Philadelphia, Penn., for improvement in painting on translucent surfaces. Patented March 28, 1848.

To Lewis Smith, of New York City, for improvement in machinery for splitting Match Splints, (having assigned his right, title, &c. to Benona Howard.) Patented March 28, 1848.

DESIGNS.

To William P. Cresson, David Stuart and Jacob Beesley, of Philadelphia, Penn., for Design for Stoves, (said Stuart and Beesley having assigned to said Cresson.) Patented March 28, 1848.

To Philip Garbielle, of New Orleans, La., for Design of Bust of Gen. Z. Taylor. Patented March 28, 1848.

INVENTOR'S CLAIMS.

Gas Pipes.

By Joseph Battin, of Philadelphia, Penn. Improvement in Hydrostatic Stops for Gas Pipes. Patented 18th September, 1847. Claim—Having thus fully described the nature and operation of my hydrostatic gas stop, what I claim as new therein and desire to secure by letters patent, is the manner in which I have arranged and combined the respective parts thereof so as to effect the purpose herein named, that is to say, I claim in combination the use of a tank furnished with a partition which shall operate as a water trap or seal, and with a tube for supplying and drawing off the water, the gas being admitted into the upper part of said tank, and the whole arrangement and operation being the same as that herein described and represented. And I do hereby declare that I do not claim either of the parts of which said seal or trap is composed, as itself new; but I limit my claim as above set forth, to the particular arrangement of said parts so as to adapt it to the performance of the office for which it was designed.