

Scientific American.

THE ADVOCATE OF INDUSTRY, AND JOURNAL OF SCIENTIFIC, MECHANICAL AND OTHER IMPROVEMENTS.

Vol. 4.

New York, August 11, 1849.

No. 47.

THE
Scientific American.
THE
BEST MECHANICAL PAPER IN THE WORLD.
CIRCULATION 12,000.
PUBLISHED WEEKLY.
At 128 Fulton Street, New York (Sun Building,) and
13 Court Street, Boston, Mass.
By Munn & Company.
The Principal Office being at New York.
Barlow & Payne, Agents, 89 Chancery Lane, London
TERMS—\$3 a year—\$1 in advance, and
the remainder in 6 months.

Poetry.

THE MIND THAT MAKES THE MAN.

BY MYRAH S. BARNES.

A proud patrician lord one day,
His plebeian neighbor met :
And thus in the most disdainful way,
The worthy man beset ;

A clown thou art, yet still they say
There's mind within thy breast ;
That Science' giddy mountain heights
Thy roving feet have press'd ;

That Fame awards her laurel crown
To rest upon thy brow ;
That richer things than gold or laurels
Thou hast in keeping now.

Yet plainly still thy garb and mein,
Ignoble birth proclaim ;
What fancy strange is prompting thee
To carve thyself a name ?

A moment on the scornful face,
The plebeian's eyes were bent ;
A moment, and his answer came
In words that heart made eloquent :

My father was a woodman's son,
Who left unto his child
No gold nor lands, but richer far—
A birth right undefiled.

And I am proud to own my sire,
Though plebeian he may be ;
For Heaven hath placed upon his brow
The stamp of its nobility.

Not for the lands, nor yet, indeed,
For all thy wide domain,
Would I renounce the laurel crown
By hard earned labor gained.

Onward and upward, it shall be
The meteor fighting still,
My chosen path, its rusty guide
Omnipotence of will.

Strange language this, new words to him,
The child of wealth and pride ;
Whose random shafts so rarely aimed,
Their lowly mark defied.

And silently he turned away,
Though pausing first to scan
The speaker's visage, as if to read
" The mind that makes the man."

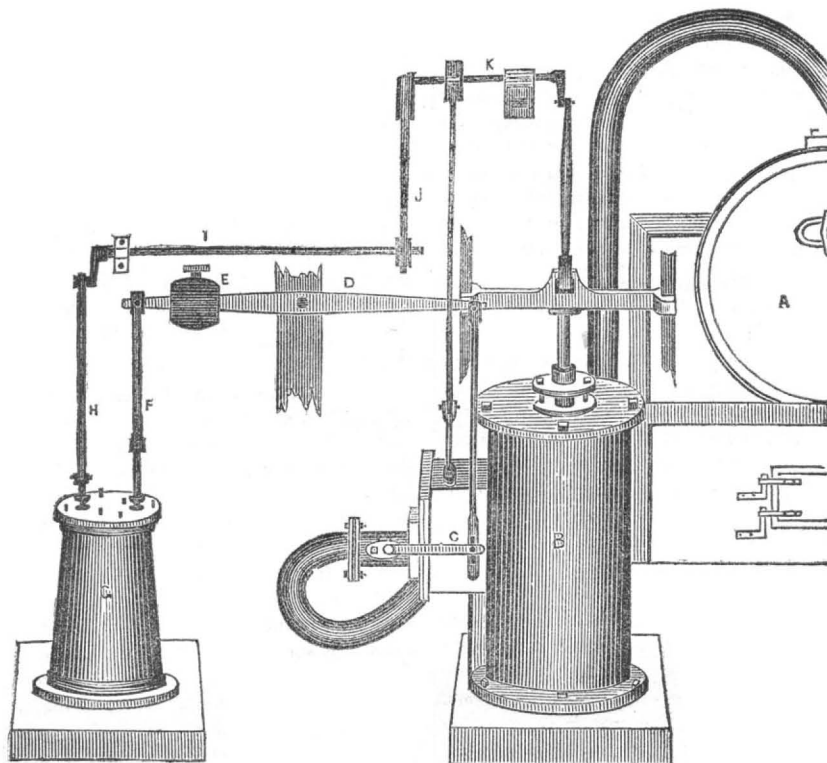
Good Deeds.

No act falls fruitless : none can tell
How vast its powers may be,
Nor what results enfolded dwell
Within it silently.

A whispered word may touch the heart,
And call it back to life ;
A look of love bid sin depart,
And still unholy strife.

Work and despair not, give thy mite,
Nor care how small it be ;
God is with all that serve the right,
The holy, true, and free !

PITCHER'S HYDRAULIC MOTION REGULATOR.—Figure 1.

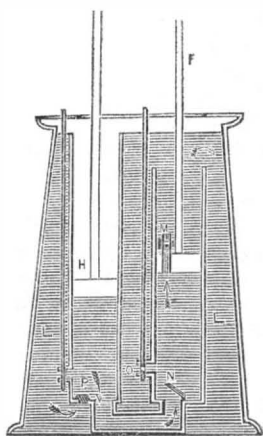


This apparatus is the invention of S. P. Pitcher, of Syracuse, N. Y. who secured a patent for it in the month of December, 1847, and a patent is now pending for improvements.

Fig. 1 is a front elevation, and fig. 2 is a vertical section showing the inside of the pump and the valve, likewise the piston that operates the steam valve. It is used as a substitute for the Fly Ball Governor, and it holds the motion of the engine to a given number of revolutions per minute, with great exactness, not requiring a continued variation of motion in the machinery to keep the steam valve more or less open, while it takes cognizance of the least variation of motion, and moves with force sufficient to overcome any friction about the steam valve. It works quick or slow as required, and does not need much care, and it is easily adjusted to give any motion to the machinery, and is not liable to get out of repair.

DESCRIPTION.—A, is the steam boiler of an engine. B, is the steam cylinder, and C, is a rod which is attached to a balance lever D, to operate the valve in the steam pipe. E,

FIG. 2.



is a weight upon the balance lever to regulate the power or number of revolutions of the pump piston required to operate the steam valve. The section view, fig. 2, will best ex-

The Ohio Statesman says that the convict Hamilton, who died in the Ohio Penitentiary was too young a man to be Littlejohn the Revivalist.

plain this operation. G, is a water cistern, filled with water and made perfectly water tight. In it are two cylinders both communicating freely with the water L. The one communicates at the top, the other through a valve P, at the bottom. H, is a piston. It is kept in motion continually by band J, and pulley from the shaft K, of the engine, which drives the shaft I, and works the piston rod H, working the pump. The piston rod F, is connected to the balance lever D, and the piston in it has an orifice M, which passes thro' it. It will be observed by the arrow, that the pump just forces the same water continually through the cylinders into the cistern, taking it at the valve P, forcing it into the other cylinder at the valve N, and through the orifice M. If there is more water forced into the second cylinder than can pass through the orifice M, the said piston will be lifted up, operate the weighted lever D, and close the steam valve. The orifice piston is therefore set by the weight to let the exact amount of water pass through it without disturbance, when the engine is working at a maximum, therefore any irregularities in the speed of the engine must sensibly affect the weighted lever, and consequently the steam valve, and adjust the steam to give the exact motion required to the machinery. The pump is attached to the engine to give quick short strokes to act more sensitive than by long slow ones. The inventor is ready to attach them to steam engines and warrants them to work as recommended.

We understand that Messrs. W. Lester & Co. of Syracuse, and Comington & Pardee, of Oswego, N. Y. are using Mr. Pitcher's Regulator on machines difficult to be regulated, and they are well pleased with them. They answer for all prime motors, water wheels, engines, &c. Mr. Pitcher's motto is, "No work, no pay," and this should give him, as no doubt it will, along with the evident utility of his apparatus, a very favorable reception with the public. We understand that he has gone to Providence, R. I., where he will in all likelihood meet with that success which his invention and perseverance entitle him.

Robert Rand of Cincinnati, who has been vending sundry patents, and latterly a speculator in lands, having obtained a considerable sum of money by forged notes, has absconded.

RAILROAD NEWS.

Utica and Schenectady Railroad.

The excavation through the rocky cliffs at Little Falls, designed for the double track of the Utica and Schenectady Railroad, has been completed. The cut is made through a mass of solid rock ; is nearly 100 feet long, the extreme depth is 35 feet, and it is 27 feet wide at the bottom. 30,000 yards of granite have been removed by blasting, continued for 17 months ; and 1,600 kegs of powder were consumed in the work.

There will now be a double track of the best quality of the heavy rail on the whole route. By this improvement, the worst and most dangerous curve on the road is avoided.

Panama Railroad.

This Company have advertised for sealed proposals for the construction of a Railroad from Gorgona on the Chagres river to the Pacific Ocean at Panama. The maps and specifications will be ready by the 15th of August, and proposals for the construction will be received until the 15th of September. A small steam boat called the General Herran has been sent out in halves from Philadelphia to Chagres river, and by the last accounts her boilers were in, and her joiner work was going rapidly forward. When the section of Railroad now offered shall be completed, there will be a continuous steam communication from ocean to ocean. The remaining section, from Gorgona to Mansanilla Bay, in the Gulf of Mexico, the Company can construct at their leisure.

Travel Cheapened.

In 1837, the fare from Chicago to Troy was \$74 50,

| | |
|-------------------------------------|---------|
| Stage fare from Chicago to Detroit, | \$36 75 |
| “ “ Detroit to Buffalo | 22 50 |
| “ “ Buffalo to Troy | 15 25 |

The present fare by steamboat and railroad between Albany and Chicago is about \$17.

The citizens of Norfolk, Va., have held a poll to test the sense of the citizens as to the propriety of authorising the authorities to subscribe \$200,000 to the stock of the Seaboard and Roanoke Railroad Co. which has resulted favorably—the vote for the subscription being 310, and against it 114. The matter has been for some time past, the subject of much heated controversy in the borough.

The Georgia railroad is so far completed that cars are expected to run in to Chattanooga early in October. This is the terminus of the Nashville road, which is in progress.

The British Parliament has taken particular measures to prevent further railroad swindling. Mr. Hudson is dethroned from his seat in Parliament.

Preserving Summer Fruits.

Such fruits as Strawberries, Raspberries, Blackberries, and the like may be preserved in the following manner. Put sugar over the fire at the rate of half a pound to the pound of berries, add a little water and when hot take up the fruit in a skimmer and dip it into the sugar holding it there for half a minute perhaps, then take it out and spread it on tin. Go through the whole lot in this manner.—Then boil down the sugar to a thick syrup and pour it over the fruit. Set the tins either in the sun or in a warm oven till the berries are dried through in thin gelatinous cakes. When thoroughly dry, put the cakes in a bag and hang it up out of the way. The cakes will keep as long as wanted and may be fitted for the table in a very few minutes, by the addition of a little hot water—more sugar being added if necessary. The beauty of this mode is that the flavor of the fruit is retained while there is no danger of its spoiling by fermentation.