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## ScIences.

Sham first in Eden stood, With blushing Eve beside him, How glad she made his solitude, Nor kisses sweet denied him.

Few cares had they, and troubles none, They plucked their fruit and eat it, And went with joy at set of $\varepsilon u n$,

Their moss-grown couch to greet it.
Their apples ripe, where'er they hung, They gathered when they viewed them Nor stayed they till their kettle sung, Nor waited till they stewed them.
But soon a change came o'er their dream; I can't tell what the date is-
But 'tis the origin of SteamThey buil their first potatoes!

Ere long Miss Eve began to find If dressed she looked more winning, And then forthwith she gave her mind To learn the art of Spinning!
Poor Adam too, struck out a plan, With thread and needle thrumming,
By which to make the outward man Appear the more becoming.

The plan was this, and 'tis a fact Which Ancient History teaches, He made, and that with skill and tact, A pair ot doe-skin breeches !

And thus I clearly make it out Beyond a chance of failure,
That Adam was, without a doubt, The first and earliest tailor!

Old Tubal Cain-we all doknow That noblest of fine fellows,
The first good Smith that gave a blow To anvil or to bellows !
Old Noah built the spacious, ark, His family to keep tight,
And when he launched his gallant bark Was surely the first Shipwright!
'Twere vain, though easy, thus to trace The rise of Art and Science, And shew how first the human race With both made close alliance.

We come to modern times and shew How human skill now ranges,
And prove how great in things below, How strange, how vast the change is.

In ancient times its flowery heights We climbed astride on asses,
And now we take more daring flights, And steam o'er steep Pranassus !

All ready there !-away we go, With boilers hot and tizzingSmall wonder if your verses flow In strains so shrill and whizzing!

Ere long we'll see things stranger far Projected and soon got up,
A tramway to some distant star, Or rallway to the moon up !

IMPROVEMENT IN APPARATUS FOR FEEDING STEAM
BOILERS.---Figure 1.


This apparatus is the invention of Mr. War- $\mid$ is in respect to other float feeders, like opera en S. Bartle, of Newark, Wayne Co. N. Y., and for which a patent was issued a few months ago. Fig. 1 is a perspective view, and fig 2 a transverse view showing how the supply of water is regulated to the force pump. The same letters on both figures refer to like parts, and the drawings are the same as those on the specification with the exception of the form of the float chamber. A small cylinder to the right is erected and attached to a convenient part of the boiler, communicating with it by the upper and lower horizontal pipes-the upper one the steam, the lower one the water pipe. $S$, is the section water line. $B$, is a float placed in the culinder and thus unaffected by the foam to operate correctly. The float by rising and falling is made to turn a cock to shut off and open the suction pipe of the force pump E , to regulate the supply according to the depth of water in the boiler and also by another combination to start and stop the working of the force pump entirely. The float therefore, is attachFig. 2.

ed by a rod seen in section, to the arm G, which passes through the steam tight bearing box C. The wire F, connected with the float is finely balanced both at the shoulder near G, on a right angled arm, and is attached below to two adverse ratchets H H , as seen fig. 2, which are also accurately balanced on pivots in the small upright standard, and they are connected by the link $P$. As the float $B$ rises and falls in the cylinder these ratchets turn the ratchet wheel $J$, which shuts or opens the suction passage of the force pump. The passage is opened to its greatest extent when the float is at its lowest line, and it can he shut up entirely when the float is at a certain height. This manner of openıng and closing the supply passage of the force pump requires fbuta vers small amount of power, in fact $i$
is in respect to other float feeders, like opera-
ting with balance lever, wheel and axle, in comparison with a short rigid lever which surpasses the power of most floats to operate and is very easily deranged. $\mathbf{N}$, is the connection of the suction ripe with the fruntain of supply. The float is described to shut off the operation of the pump entirely, as follows. There is attached to the rocking shaft which passes freely through the standard, a single arm, on which are balanced two clicks as seen at $N$, in communion with the arm of the float to move with its rise and fall the two ratchets which are also adverse like $H \mathrm{H}$, and moves a rack bar to operate by M F , the band, by fingers from the fast to the free pulley at K , on the shaft D , to stop or set in motion the pump according as the float rises or falls. A better arrangement than that represented in the drawing is employed by the patentee where he has it in operation. Various modifications might be presented, such as a clutch, as well as a free pulley to gear and ungear the pumps. When the current of the water through the pump is required to be continuous, and is to be admitted to, or diverted from the boiler by a three way cock, the cock should be placed above the valves, and when it is required to start and stop the current through the pump by the admission of air into the pump, the cockshould be placed between the valves.
More information respecting rights, \&c. may be obtained by letter, post paid, to the inventor.

A Good Sare.
The St. Louis Reveille says,-We saw, yesterday, in the ruins of the store formerly occupied by s'essrs Woods \& Violet, a safe that has effectually resisted the test of fire.Although unprotected by a vault, and exposed to the heat of a burning pile for two days after the conflagration, the papers, \&c., which it contained have since been taken out perfectly free of injury. The paint and varnish on the wooden shelving had not even been melted. We were told by a by-stander that it is called a " Sala mander Safe."
[We should like to know the name of its maker.
The entire consumption of wheat in the British Empire is abcut $30,000,000$ of quarters in a year. A quarteris eight bushels.

## RAILROAD NEWS.

New Raliroad Cars.
Some new and handsome Railroad Cars from the factory of Eaton, Gilbert \& Co. Troy, $\mathrm{N}^{\circ} \mathrm{w}$ York, have just been introduced on the Harlem Railroad. These cars have the Pa tented Window Blinds, of which D. Hart \& Co. are the inventors, we believe, and Eaton, Gilbert \& Co. the assignees. They are constructed as to cover the whole of the wiridow inside, and to told up and slide into a casing over the window, entirely out of sight and out of the way. They can be lowered at pleasure to cover the whole or any part of the glass, which is in two large lights.

Survey or a Hall Route to California.
The Government has ordered a reconnoisance to be made from Fort Smith to the Bay of San Francisco. Lieut. Simpson, of the Topographical Engineers, assisted by Lieut. Hagen, have been ordered upon this service. This reconnoisance in connection with those heretofore made by Fremont, will enable Congress to decide upon a route for a Pacific Railway.

Columbus and Cleveland Railroad.
There are a great number of hands to work on the Columbus and Cincinnati Railroad which is intended to be in full operation this fall.
The Committee of the Connecticut Legislature have reported favorable on an application for a charter for a rallroad from Danbury to the Harlem Railroad, a distance of nine miles.

The receipts of the New York and Erie Railroad, for the last month were $\$ 66,066,87$, showing an increase of 163 per cent over May, 1848. This is going to be a great road

## yet.

Gas Explosion.
On the 6th inst. at Williamsburg, an explosion of gas took place at the salæratus manufactory owned by Francis, in Tenth st. A young man named George Sylvester, 17 years of age, incautiously applied a luciter match to the ventilator of the carbonizing rooms, when a violent explosion took place, which hurled him to the top of the building, whence talling to the floor, he broke the left knee-pan and was much bruised. The walls of the rooms were spread and prostrated.
The London Electric Telegraph Company has communication with one hundred and fifty towns. It has a central office, and five branch offices in London, employing 60 persons. The wires are 9,800 miles in length, are passed through iron pipes under the city, and are suspended upon 61,800 posts. A mes. sage from Liverpool to London, costs about 8s 7d., to Glasgow 14s.

Culture of Tomatoes.
Tomatoes may be sown in January and by the 1st of March may be transplanted in troughs four feet in length and six inches square, which may be placed tier above tier on racks, in a room of moderate warmth; and by the first of May they will be in height at least eighteen inches, and so forward that the first will be produced a month or six week earlier than usual. Three thousand plants will fill 375 boxes. They are transplanted four feet apart, requiring one and one-eighth acres of land.
Tomato culture is but a part of what may be accomplished in this way. It is indispensable to have many boxes twelve feet in length by four wide and two deep-making as perfect a Mushroom bed as possible. If by the first of January the said beds are properly filled with manure, you can raise on this all the Tomatoes wanted; by which time the Mushrooms will begin to appear, and if properly filled and managed, will bear plentifuliy for one year.

