

*On the Prevention of Boiler Explosions.\**

Numerous accidents of late have called my attention to the means necessary for showing when the feed-pump is at work, and what quantity of water is passing into the boiler during the working of the pumps. I, therefore, propose the use of a valve similar to the throttle-valve, or, what would be better, a flap-valve with a lever arm on the outside of the box (forming part of the feed-pipe), with a counter-balance having a tendency to close the valve, and working against a quadrant-face to indicate the position of the valve within. This box should be a trifle larger than the feed (and placed so as to be seen by the stoker), but having an area (after deducting that occupied by valve,) equal to the diameter of feed-pipe.

It will at once be seen that the water pressure must keep the valve open, and the arm outside will indicate its position on the face of the quadrant; but, if by partial stoppage of the area of feed-pipe the pressure on the valve becomes diminished, the arm will at once indicate, and to what extent. I trust this will be the means of calling scientific men's attention to the evil.

EDWIN MOORE, Engineer.

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*Process for Printing from Veneers.†*

A process of veneering by transfer is mentioned with approval in the French journals. The sheet of veneer or inlaying to be copied is to be exposed for a few minutes to the vapor of hydrochloric acid. This novel plate is then laid upon calico or paper, and impressions struck off with a printing-press. Heat is to be applied immediately after the sheet is printed, when a perfect impression of all the marks, figures, and convoluted lines of the veneer is said to be instantaneously produced. The process, it is affirmed, may be repeated for an almost indefinite number of times. The designs thus produced are said all to exhibit a general wood-like tint most natural when oak, walnut, maple, and the light colored woods have been employed.

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*Loss of Lead and Silver Ores in Washing.*

M. Fournet, calls attention to the loss arising from the difficulty of thoroughly wetting the ore at once, and the consequent fact that the air entangled in the powder causes a considerable quantity to float and pass off with the water. This is seen in pouring water over any powder (e. g., magnesia). He shows that this effect takes place with lead and silver ores, in pure and salt water, but not in oil or in alcohol. He proposes no practical remedy.—*Comptes Rendus de l'Academie des Sciences (Paris)*, October, 1857.

\* From the London Builder, No. 766. † From the London Builder, No. 772.