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Steam Fire Engines

The Philadelphia "North American," says: "We learn from good authority that a joint committee of the City Councils have accepted a proposal made by Mr. Harrison, an eminent and wealthy engineer and machinist of this city, to construct, upon a plan of his own, a steam fireengine which shall answer the purpose designed at least as well, if not better, than the engine now in use in Cincinnati. If the apparatus, when completed, should prove upon trial to be what the inventor predicts, it is to be accepted by the City Corporation, and put in use forthwith for the extinguishment of fires. We are further informed that the engine is now in course of construction at one of our machine establishments, where the extensive facilities afforded will ensure its rapid completion. This is a movement in the right direction, which will be hailed with pleasure by the mass of our citizens."

Parian Marble.

Consists almost entirely of carbonate of lime, and is much softer and more transparent than that of Carrara. The term marble is applied to those fine varieties of granular and compact limestone, which being of a closer grain, are susceptable of a superior polish, and are remarkable for their whiteness, their blackness, or the beauty and varieties of their colors. Blue and green marbles frequently owe their tints to minute particles of hornblende. The black varieties are colored by carbon, and sometimes by bitu-

Tin in California.

It is said that a tin mine has been found near San Francisco, by some workmen in the employ of the "Mountain Lake Water Co.," while tunneling through a hill near the Presidio. The Cornwall mines in England are now the principal and almost the only source from which the world derives this metal. Next to iron and copper, tin is the most useful of metals, and is the most generally employed in the arts. It is employed in covering iron plates to make the sheets used for kettles and pans, and also by practical chemists in making coloring mor-

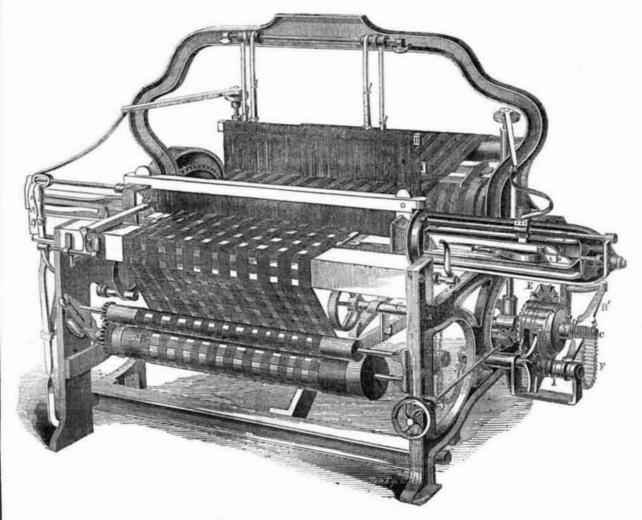
Missouri Hemp.

The increase of receipts at St. Louis over last year, in this important staple, foot up about 14,324 bales, making an aggregate of 63,450, against 49,124 for 1852. When to this is added the enhanced rates at which this article sold, (a considerable portion of the crop bringing as high as 20 per cent advance on the sales of the previous season,) a money balance in favor of the present year may safely be estimated at from \$200,000 to \$300,000.

The Timber Seized since July 1, on the Wisconsin and Chippewa rivers, as having been feloniously cut on Government land, amounts to sixty million of feet, and is valued at from \$250,000 to \$500,000.

Wrecks at Key West.—Twenty-eight vessels were wrecked on the Florida Reef during the last year, and twenty-nine arrived in distress. Estimated loss \$2,082,500.

ECCLES' PATENT CHECK LOOMS.---Fig. 1.



Patent Power Loom for weaving checks or the chain, g, around its sprocket wheel, for the in the slots of the star wheel, and move it one ginghams; this koom is manufactured by that purpose of shifting the shuttles to throw in the quarter each time a pin catches, and by means distinguished and extensive company "Ames desired weft as the star wheel, S, is operated of the chain, g, operate the shuttle box. The Manufacturing Co.," Chicopee, Mass., James T. by the pattern chain shipper. The general out-pattern chain, F. has pins secured on its links. Ames, agent.

fig. 72 is a sectional elevation of the compound H are the heddles; B is a revolving shuttle the shaft of which it passes. The pins in chain motion for operating the shuttle box. Fig. 3 box; C is the common cam driving shaft; O is F are not shown, but it is sufficient to say they shows the gearing driven from the cam shaft, gearing which couples with said shaft, by the are set in links, such as one pin at one side of

The annexed engravings are views of Eccles' | Fig. 4 is a section of the shuttle box, B, with these pins revolve with the gearing they catch Figure 1 is a perspective view of the loom; in common use, and need not be described. H from the shaft, C, by the star wheel, E, around C, with which it is coupled by the clutch, D. clutch, D, and which communicates motion

Figure 2. Figure 3. Figure 4.

from the bevel wheel, r, to the one, i, which | leys on the loom frame, and finally around the runs in an opposite direction to O. P is a stay sprocket wheel, which is secured on the inner chain, g, which passes between two small pulthere are pins, p, on the gearing, O i. As which a bevel edge on O takes and holds the

line and parts of the loom are the same as those This chain has a continuous positive motion a link for one color, another pin at the center of the next link, say for white or a neutral color, and a third pin set on the other side of a third link, for a different color; strictly speaking, however, there are only two kinds of pins on the pattern chain. These pins, as they come round, take into notches on a shipper or sword, B', which has a prong end grasping the collar of the star wheel, S. This lever, therefore oscillates, and shifts the said collar of wheel Son its shaft further in or out-just the required distance—to bring the slots of the star wheel, S. into the exact position, to be caught by either of the pins, p p, or to be set on the neutral point between these two by the neutral pins mentioned, so that these pins may revolve and not catch into the slot of the star wheel, S, when required. Each change of the shuttle throws in two picks, but according as the pins are set on chain F, any required number of picks of one color can be thrown in. The great improvement claimed for this loom, is the gentle and easy motion of shifting the colors of the weft. There is no jarring, as in the pin wheel loom but all works soft and smooth.

When there is a mistake made in the picks, a small pinion on the inner end of the shaft of pin, which carries the gear, r, and causes the end of the revolving shuttle box, B. It will G, enables the weaver to bring back the gearreverse motion of O and i. S is a peculiar star therefore be observed that the shuttle box will ing to its proper connection to correct the miswheel on the small shaft, I. On a pulley on the be operated just as the star wheel, S, is moved. take. There is a series of notches on a collar inner end of said shaft, there is an endless There are four slots in said star wheel, and on the small shaft, I, as seen in fig. 3, into