

## RECENT INVENTIONS.

Messrs. John H. Houston and David H. Houston, of Cambria, Wis., have patented an improved hurdle for fanning mills. The object of this invention is to insure a more thorough separation of the grain and the chaff in a fanning mill. Hurdles for fanning mills, as heretofore made, have been defective in the construction of the frames or slides of their sieves, which have been straight on their lower or inner edges, thereby not providing for a proper filling of the sieves at their sides and angles and permitting the light grain and chaff to drop through the hurdle among the clean grain. This is caused by the greater or more rapid movement of the grain in the middle than at the sides, whereby the grain passes down the sieve on a curved line or front. The present invention obviates this and causes the grain to pass down the sieve in a straight line, all the grain moving at the same rapidity and completely covering the sieve. This is effected by making the lower edges of the screen frames and feed slide concave. An upper sliding feed board thus constructed is arranged above the uppermost inclined sieve, also an inclined slide below the lower sieve, and whereby the grain is made to pass over the entire width of the sieve of the screenings box, thus more thoroughly cleaning the grain.

A very simple and efficient bag fastener, which is operative without the aid of locking devices, has been patented by Mr. John B. Batt, of Williamsville, N. Y. The device consists of an oblong metal loop or band, having one end expanded into a larger curve than the other, to serve as a handle and to facilitate the insertion within the band of the mouth of the bag. It is applied by drawing a portion of the mouth of the nearly filled bag into the loop and placing it against the edge of the smaller end of the latter, so that the hem of the bag rests upon the upper portion of the rim, and afterward gradually drawing the remaining portion of the mouth through the enlarged portion of the band till the entire mouth is equally distributed in gathered folds along and within the band, when the upper edge of the rim of the band will engage with the hem of the bag and prevent the mouth from slipping out. The device may be disengaged by emptying the bag and withdrawing a small portion of the hem at the mouth end of the bag.

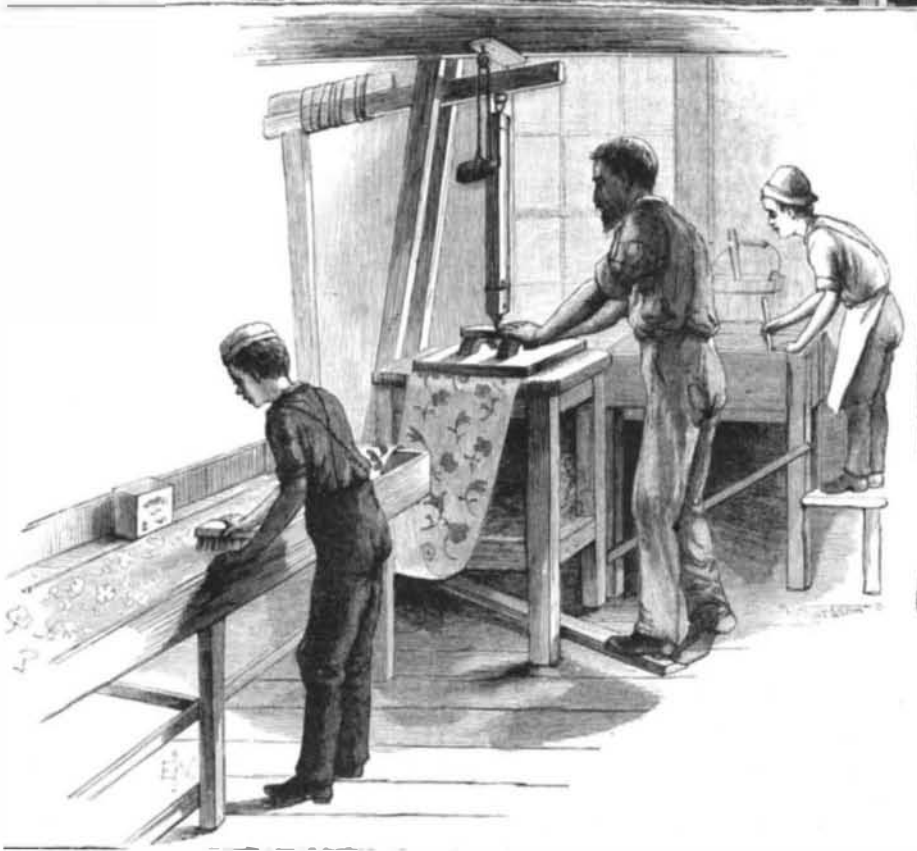
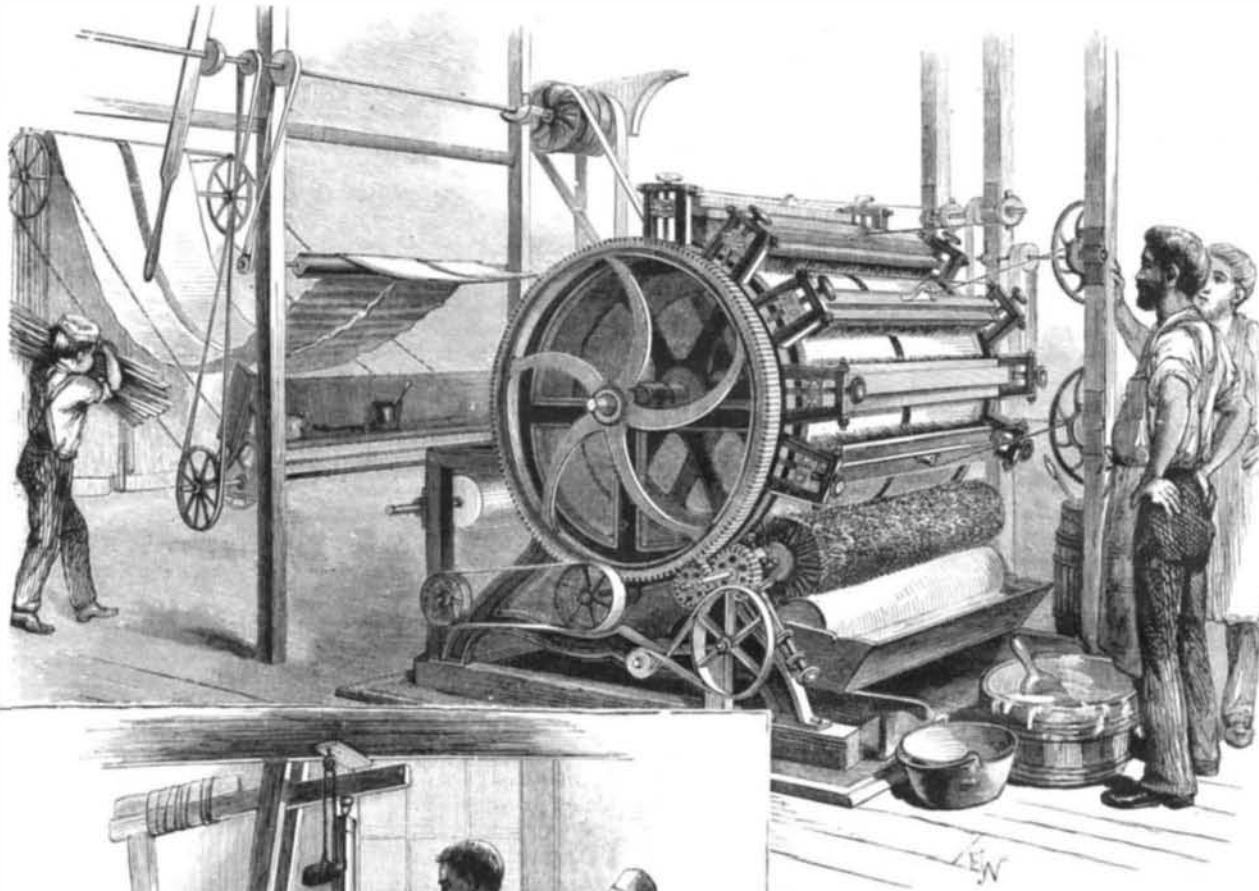
An improvement in cotton gins, which provides for the delivery of the cotton in a clean condition and for the easy running of the gin, has been patented by Mr. Joseph Kopfler, of Amite City, La. This invention consists in a combination, with the brush cylinder, of an open concave composed of a series of curved bars arranged transversely in the frame of the gin, the planes of said bars being set at an angle

and inclined rearwardly with their ends highest, to cause the cotton to drift toward the middle of the machine. The cotton is carried over the rearwardly inclined bars of the open concave, each inclined bar forming an air eddy in the blast generated by the revolution of the brush cylinder immediately behind the bar, and carrying off the dirt. The invention also comprises a combination of reversely beveled friction pulleys for imparting motion from the saw shaft to the brush shaft of the machine, the frictional contact being maintained between said pulleys by a spring arranged within a socket bearing at the end of the brush shaft and adjustable by an outside screw to vary its tension.

A simple improvement in sewing machine needles, by which the needle can be threaded very easily and quickly even by those having imperfect eyesight, has been patented by Mr. Amos F. Gerald, of Fairfield, Me. The needle is formed with a slit extending from a little below the eye, along one side of the latter, and upward to a point above the

part of the needle that works through the goods, where it passes out at the side of the needle, thus forming an inclined splint, which has its upper end set outwardly. A sleeve inclined at the inside of its lower end is fitted over the needle to receive within it the upper end of the splint. This sleeve, which has its motion in direction of the length of the needle, controlled by a pin and slot, is formed with opposite notches in its lower edge, so that to thread the needle it is only necessary to draw the thread across the splint and press it upward against the lower edge of the sleeve to slightly raise the latter, and so that the thread will enter the notches and pass over the point of the splint, after which it is drawn downward through the slit until it enters the eye of the needle.

Ordinary flowerpots or crocks are open to the objection that they do not prevent the surplus of water poured into them from dripping upon the flower shelf or floor, and produce dampness by water collecting under their saucers. They also are subject to rapid destruction by rust. These objections are remedied in the flower crock recently patented



BRONZING BY HAND.

## THE MANUFACTURE OF FINE WALL PAPERS.

by Mrs. Amelia D. Polsgrove, of Catawissa, Pa. In this improvement the flower crock or pot is provided with a drip-tube at its bottom arranged to project down within a cup which is formed with a screw-collar that fits within a correspondingly threaded collar on the tube. Said crock is also preferably made or provided with a base arranged to sit within the saucer of the crock and to inclose and conceal from view the cup and its connections. It is likewise proposed to fit within the crock a removable metal lining terminating below in a tube which enters the drip-tube of the crock. This construction not only effectually removes the objections above cited, but admits of the ready transplanting or interchanging of plants from one crock to another by removing the metal linings containing the plants.

A safety device, in the shape of an automatic brake for elevators, etc., has been patented by Mr. Joseph H. Baird, of Oakville, Conn. The invention is especially applicable to elevators and hoisting machines, and its object is to pre-

vent the rapid descent of the elevator in the event of the slipping or breaking of the driving belt. The invention consists of two pulleys, one fixed on the driving shaft of the elevator, and the other on a parallel counter shaft or stud, and a wedge held loosely in a socket with its point inserted between the pulleys and in contact with their faces, whereby a constant friction is created between said pulleys and wedge during the descent of the elevator. On the upward movement of the car the wedge is released from the pressure of the pulleys. The device is a simple one and not liable to get out of order.

## THE MANUFACTURE OF FINE WALL PAPERS.

DADO, SCREEN, AND FRIEZE.

In our issue of November 26 we gave engravings illustrating a portion of the extensive manufactory of Messrs. Frederick Beck & Co., Seventh avenue, corner of 2th street, New York city. We now give some particulars in regard to hand-made papers.

In the extensive warerooms of the factory are found almost endless varieties of pattern and color. Here are papers almost as thick as board, imitating stamped leather. They make a very elegant finish for a dining-room or library. Some of them cost \$12 a roll—eight yards to the roll. But they are very durable. Some of these papers reproduce the effects of the old Venetian or Dutch leathers. Their effect, with their quaint antique patterns, especially when used as a dado in an apartment finished with dark woods, is extremely rich. The same may be said of a similar class of papers which produce the effect of oxidized metals. They can be introduced in decorations to ad-

## LAYING THE GROUND.

mirable advantage. Here are papers shining with gold, and with most graceful patterns. Combined with a rich border, and skirted by a dado, there can be nothing more fitting for the drawing-room. Very charming effects can thus be produced at a very moderate cost. These papers of delicate tint, with suggestions rather than masses of color, and with sprays rather than blocks of gold, are suited to the bed-chamber, giving a sense of airiness and beauty rather than of magnificence. Some exquisite papers for this purpose are the "mica" papers, made only in the establishment we are visiting. The paper is "grounded" with a preparation of the best Japanese mica, and then the pattern is printed upon it, the glitter of the mica, which never tarnishes, adding to the attractiveness of the whole. The effectiveness of these papers is great and the cost moderate. Here is a real novelty. It is a genuine velvet, but so attached to a paper backing that it can be put upon the wall with the facility of the most ordinary wall hanging. These genuine velvets, embossed in rich figures, will furnish hanging suited for a palace. The ordinary "velvet" papers, so-called, are handsome; but these are not imitations—they are the genuine article. The process of their manufacture is a secret, but any one who wants his walls hung with real velvet can now obtain the article he needs, and the cost will not be disproportionate to the effect.

Here are found papers for the finest and most costly mansion, and papers for the little nest of a cottage; papers embossed, and stamped, and flocked, and gilded, and plain; papers with the sheen of steel, or with a surface of velvet fit for the robe of beauty; papers with French patterns, with Japanese patterns, with American patterns, papers with flowers or birds that carefully simulate nature, and papers with conventional designs; papers suited to all the different apartments of a house; papers for ceilings, for screens; papers—beautiful ones, too—for twenty-five cents a roll, or even for less, and papers, as before mentioned, for twelve dollars.

The white paper comes into the factory from the paper mill in large rolls. It varies in weight according to the particular use to be made of it; much heavier stock is required, for example, for "leather" paper than for the ordinary wall hangings. The first step in the process of printing is what is called "grounding." This is applying a tint over the whole surface of the paper, and is done by the machine