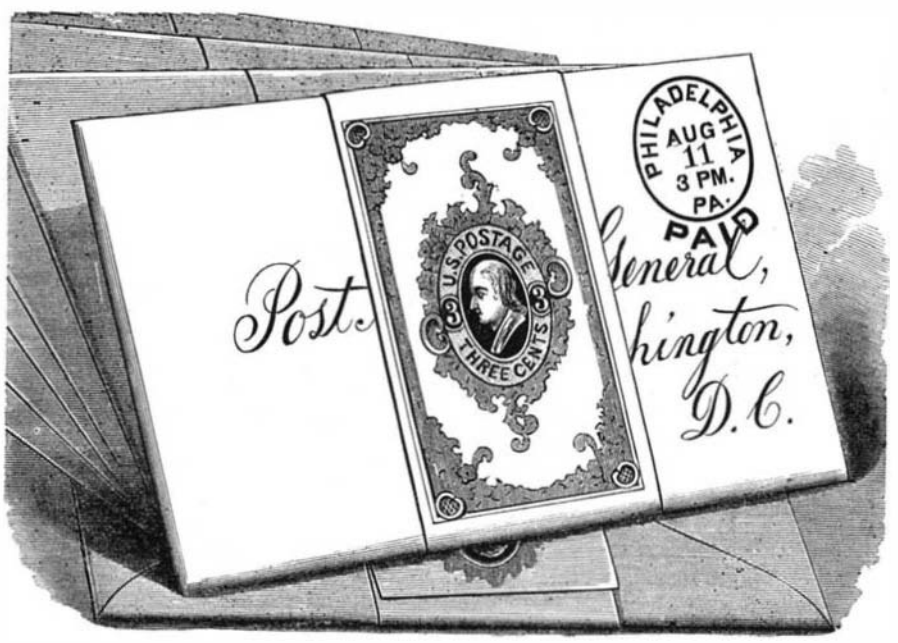
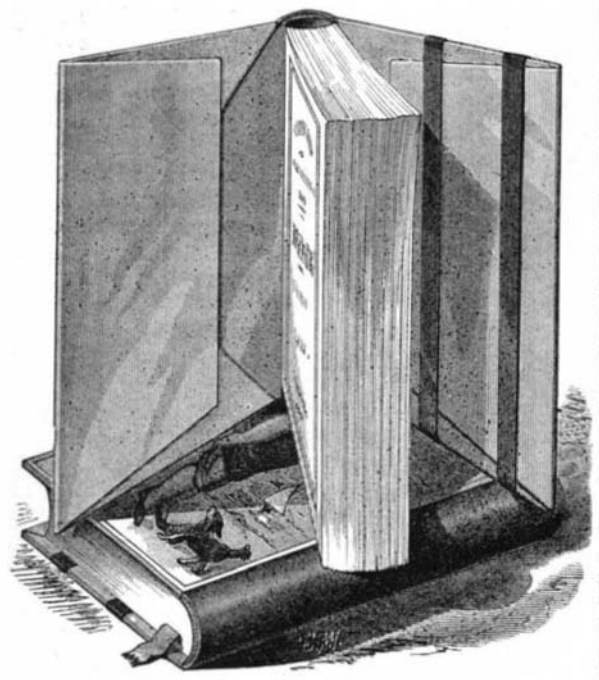
POSTAGE STAMP CANCELLER.

The improvement shown in the engraving consists of what might be called an enlarged non-adhesive postage stamp, printed on strips of paper like labels, gummed at one end and of convenient lengths to encompass the sides of letters or their envelopes, and of moderate width to cover a portion of the superscription and hold itself in position. In use it is folded around the middle of the letter or envelope, the gummed end dampened, and it then forms an encircling band around the letter. It is designed to be retained at the post office, where it is taken off in the act of cancellation. It might with propriety be called a postal notice to the postmaster that the writer had paid his postage. As a portion of the address of the letter is covered by the strip or band, the post office employé removes this band, and by retaining it, it becomes impossible to re-issue such coverings after the first redemption at the post office. If torn or otherwise mutilated, it will be impossible to reunite them, and thus the traffic in washed stamps will be at an end. By no cancelling stamps being employed, the contents of letters are not liable to injury from blows given in using these stamps for cancellation.



POTTS' METHOD OF ATTACHING AND CANCELLING POSTAGE STAMPS.



BOOK COVER PROTECTOR.

Another use may be made with this mode of stamping letters. At stated intervals the stamps, as removed from letters, could be forwarded to the accounting officer of the department to tally with the subordinate offices, in connection with mail lists or route manifests, and thus hold a check upon the auditing branch of the services, somewhat in the manner practised in the Treasury Department by means of duplicate invoices.

Application for a patent upon this method of attaching and cancelling stamps has been made through the Scientific American Patent Agency, by Albert Potts, 234 and 236 North Front street, Philadelphia, to whom communications may be addressed.

BROWNE'S BOOK COVER PROTECTOR.

The object of this invention is to provide a temporary cover for books, which may readily be applied to books of varying thickness, but having the same length and breadth. It is designed for children's school books, public and privatelibraries, to protect these books from the wear and tear of usage, and with ordinary care will last as long as the common book cover.

As shown in the engraving, this cover is made of paper of suitable quality and thickness, and is folded over the covers of the book in the manner in which covers are usually put on. One side of the folded part is pasted or otherwise fastened. The other half of the cover is similarly folded, and is retained in place by strips of thin elastic rubber extending from top to bottom of the cover. These strips enable the cover to be readily put on the book. Two of these bands are provided, one being sufficient to hold the folds of the cover in place, while the other may be slipped over a portion of the leaves of the book to "keep the place." To fit the cover to books of varying thickness, the two portions or sides of the cover are connected at the back by an elastic band of thin rubber, which is sufficiently yielding to adapt it for the purpose designed.

This cover was patented through the Scientific American Patent Agency, July 17, 1877, by Charles B. Browne, of Camillas, Onondaga county, N. Y., who may be addressed at that place, or further inquiry may be made of George W. Keeler, 55 Liberty street, New York city.

IMPROVED LOG TURNER.

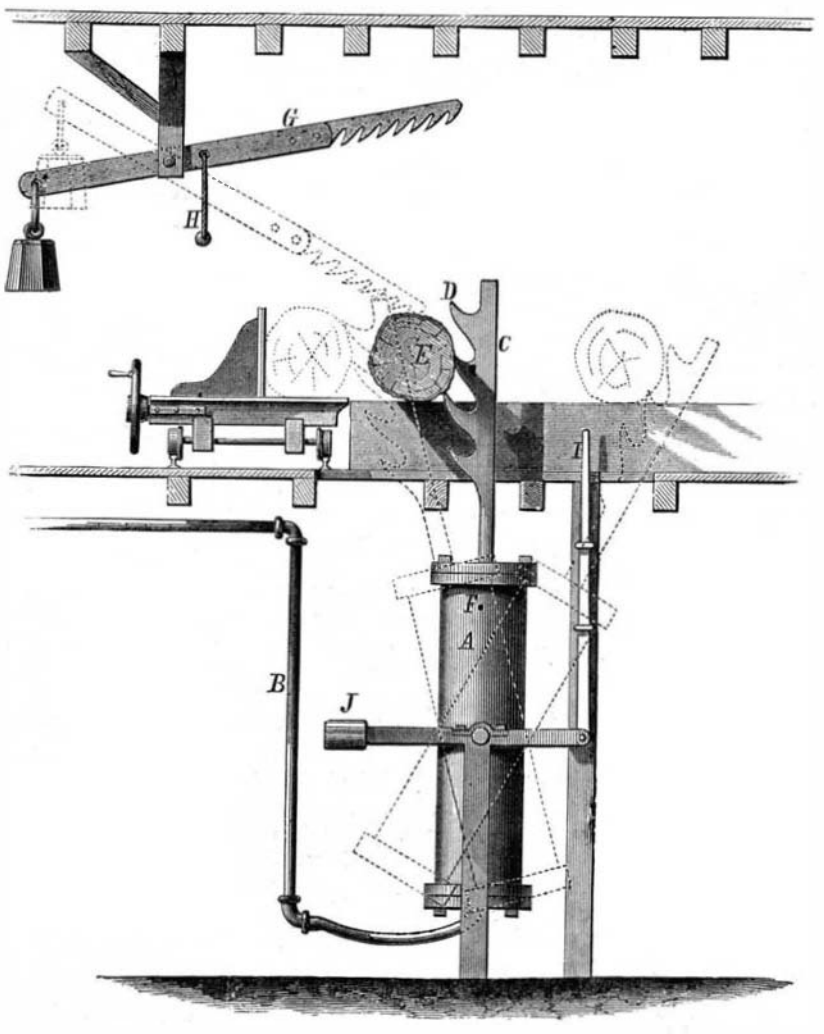
Log turners, or "niggers," as they are sometimes called, having a reciprocating toothed bar to work in a perpendicular direction or nearly so, have been known and used for some years for turning logs or cants on the head blocks of sawmill carriages.

We illustrate herewith a reciprocating oscillating toothed bar that is claimed not only to turn the log on the head blocks, but also to grasp a log anywhere within its reach on the log deck, and turn or roll it forward on to the head block of a sawmill carriage. The advantages are in saving of the time of the man who was heretofore employed in rolling by hand, or by butt wheel and chain, the logs from the log deck upon the head blocks. As the reciprocating toothed bar will, we are informed, work successfully at great angles in either direction from a perpendicular, it will engage a log far away from the head blocks, and force it upon them.

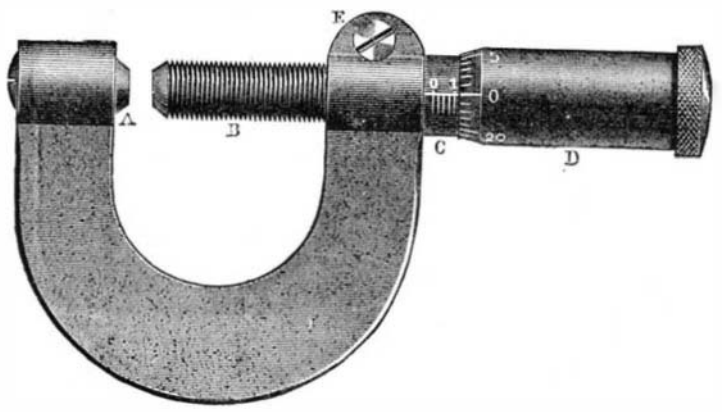
This device is operated through the medium of an oscillating steam cylinder, A, into which the steam is conducted through the pipe, B, and flexible part, into the bottom of the cylinder, when it impinges upon a piston head within the cylinder and causes it and the toothed bar, C, to which it is attached to rise, and as it rises, the teeth, D, of bar, C, engage the side of the log, E, and cause the log to turn over. But in order to take the logs from a distance, from the head blocks on the log deck, the steam cylinder and the toothed bar within it is caused to oscillate, so that the toothed bar will engage a log, and as the steam in the cylinder forces the piston and toothed bar upward and outward, the teeth will engage the near side of the log and cause it to roll over toward the log carriage and head blocks. The toothed bar has a number of teeth upon it that, as the upper one is forced from its hold by the turning over of the log, the next succeeding one engages the log and keeps it in revolution until the piston head has been forced upward and has passed the opening, F, in the steam cylinder, when the steam is cut off, and the piston, with the toothed bar, fall back to their original position. If the log is not yet placed in the desired position on the head blocks, a second or a third action of the steam upon the piston and toothed bar is had until the log is in the right position on the head blocks.

In order to hold the log from rolling backward while the steam is cut off and the toothed bar has fallen down for a second action, another bar, G, is pivoted to hangings overhead having a cord, H, attached at the proper place, so that the sawyer can draw the holding bar down upon the log, the teeth engaging it and thus preventing the log from rolling back. A counterpoise is attached to the opposite end of the holding bar, so that when the bar is free the toothed end will rise up out of the way. The cylinder, A, is caused to oscillate by the attendant putting his foot upon the treadle lever, I, and forcing the weighted arm that is fixed to one of the trunnions of the steam cylinder down. This carries the cylinder over to the right, as seen in broken lines, or by raising the treadle bar, I, the cylinder will be forced over to the left, as seen, whereby is given a greater capacity to the log turner. The counterpoise, J, on arm, I, causes the cylinder to assume a perpendicular position when the arm is free from force in either direction.

This invention was patented by John Orm, of Paducah, Ky. Further information may be obtained on application to Langstaff, Orm & Co., same address.



ORM'S IMPROVED LOG TURNER.



MICROMETER CALIPER.

MICROMETER CALIPER.

The accompanying engraving represents a micrometer caliper manufactured by the Victor Sewing Machine Company, of Middletown, Conn. It consists of a U-shaped frame having in one of its arms a screw, A, for correcting the adjustment of the instrument, and in the other a screw, B. The internally threaded part of the frame is elongated, forming a sleeve, C, over which is fitted a sleeve, D, that is attached to the milled head of the screw, B. The sleeve, C, is graduated longitudinally, and the sleeve, D, circumferentially at its lower edge, it being beveled to bring the graduations near the surface of the sleeve, C, to insure accuracy in reading the scales.

Its capacity is one inch, and is graduated to one thousandths, but can readily be set one half and quarter thousandths; and is so constructed that any wear resulting from use can be readily adjusted.

Home-Made Vinegar.

A cheap and wholesome article of vinegar may be made of water, molasses, and yeast, say twenty-five gallons of water, four of molasses, and one of yeast. This, when it ferments, will yield very good vinegar. A fair imitation of white wine vinegar may be made of mashed raisins and water kept in a warm place for a month.