J. JENSEN.

BROOM BAND PRESS.

APPLICATION FILED AUG. 18, 1910.

1,034,460.

Patented Aug. 6, 1912.

Fig. 2

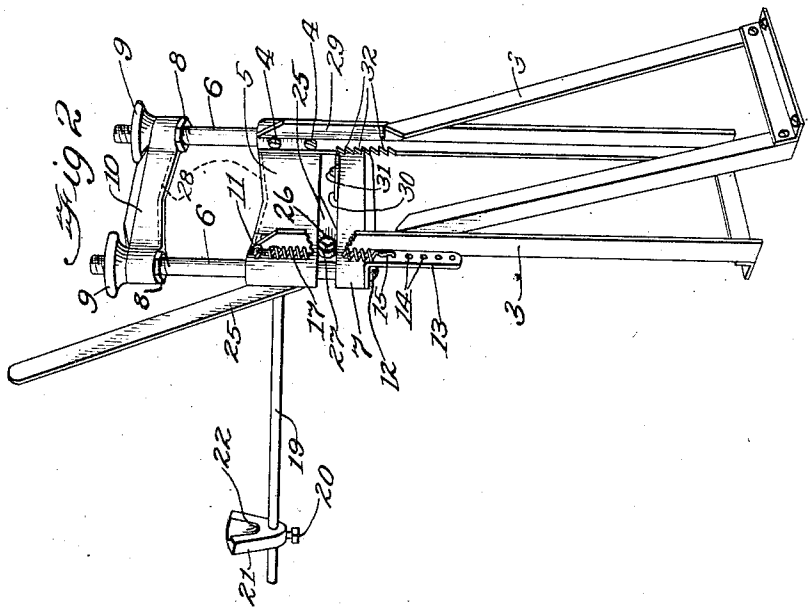
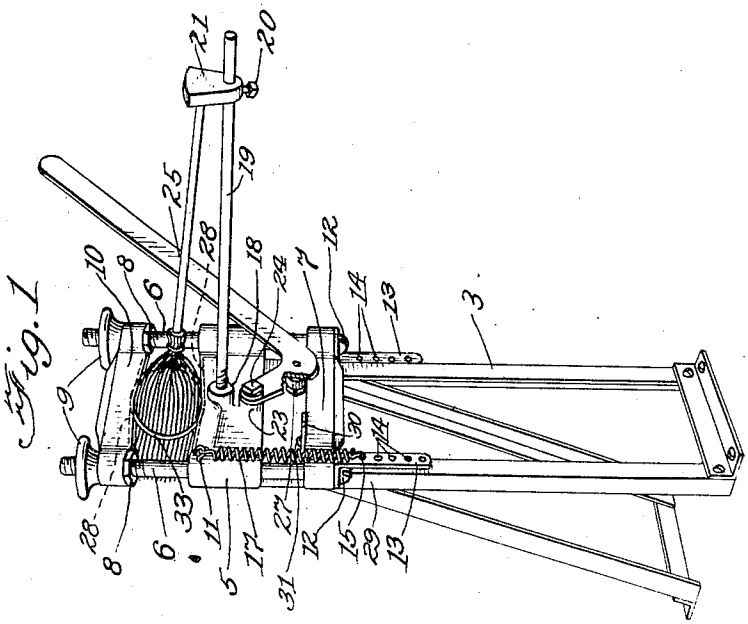


Fig. 1



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# UNITED STATES PATENT OFFICE.

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## BROOM-BAND PRESS.

1,034,460. Specification of Letters Patent. Patented Aug. 6, 1912.

Application filed August 18, 1910. Serial No. 577,814.

*To all whom it may concern:*

Be it known that I, JACOB JENSEN, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Broom-Band Presses, of which the following is a specification.

The object of this invention is to provide a cheap, yet durable and efficient broom-band press which is not liable to get out of order, is easily adjustable to different sizes of brooms, and can readily be operated by inexperienced help.

In the drawings Figure 1. is a perspective front-view of a broomband press incorporating my improvements, with a band and broom in position, preparatory to pressing down the band; and Fig. 2. is a perspective rear-view of my machine without the band and the broom, with the machine in wide open position. In both figures portions are broken away to show operating parts.

Referring to the drawings, to a base 3, constructed preferably of angle irons and fastened to any suitable foundation, is connected, by means of screws 4, frame 5, in which are slidably mounted substantially vertical rods 6. These rods at their lower ends are rigidly connected by substantially horizontal crossbar 7. At their upper ends rods 6 are threaded and provided with adjusting nuts 8 and locknuts 9. Between these nuts there is mounted on said rods yoke 10, substantially parallel to crossbar 7. On diagonally opposite sides frame 5 is provided with hooks 11, and vertically below them there are fastened to crossbar 7, by suitable screws 12, vertically extending bars 13, provided with holes 14 adapted to have therein inserted hooks 15 at various heights. Between hooks 11 and hooks 16 are suspended extension springs 17.

Into a suitable boss 18, on the front side of frame 5, and a short distance below the middle of the upper edge thereof, is threaded horizontal rod 19, on which is slidably mounted, and held in position by setscrew 20, gage 21, provided with rest 22 for the end of a broomhandle. Immediately below boss 18 frame 5 is provided with another boss 23 into which is threaded bolt 24. Upon this bolt is rotatably mounted lever 25 into which is threaded bolt 26 on which in turn is rotatably mounted washer 27 in such a way as to engage the upper edge of crossbar 7. The upper edge of frame 5 and the lower edge of yoke 10 are provided with grooves 28. On the upper edge of crossbar 7 is mounted, near anglebar 29, catch-lever 30, pivoted on screwbolt 31, and adapted to engage sawteeth 32 which are cut into the edge of bar 29.

The operation of my machine is as follows:—Hooks 15 are inserted in bars 13 at such height that the tension of springs 17 is sufficient to pull crossbar 7, together with rods 6, and yoke 10 to the highest position attainable by them, with the weight of lever 25, by means of washer 27 and bolt 26, resting on the upper edge of crossbar 7. Yoke 10 then is adjusted at such a height that when lever 25 is brought down, and thereby bolt 26 with washer 27 brought into a position vertically below bolt 24, the lower edge of yoke 10 approaches the upper edge of frame 5 closely enough to give to a broomband sprung into grooves 28 the degree of compression desired. A broomband 33 (commonly made of a stiff galvanized wire) is thereupon placed into lower groove 28, and by means of lever 25 yoke 10 brought down until upper groove 28 also engages broomband 33. In this position the machine may be locked against the upward pull of springs 17 by turning catch-lever 30 so as to engage one of sawteeth 32. A broom finished to the point where the band is to be applied, is thereupon pulled through band 33, until band 33 surrounds the broom at the proper place; thereupon lever 25 is pushed down vigorously, thereby compressing the band and securing it to the broom. Catchlever 30 is automatically released during this operation. sawteeth 32 being pointed downward. Lever 25 being pushed up slightly until bolt 26 and washer 27 are removed from a position directly or nearly under bolt 24, the upward pull of springs 17 will secure its return to its elevated position (shown in Fig. 2) by pulling up crossbar 7, together with rods 6 and yoke 10.

Where all the handles are of standard length, the operation of the machine may be greatly facilitated by adjusting gage 21 so that when the tip of the handle of a broom to be provided with a band, and pulled through a band inserted in grooves

28, is placed in rest 22, the broom will be in proper position with reference to such band.

I claim:—

1. In broomband presses, the combination of a suitable support; a frame mounted on the support and having a groove; parallel vertical rods slidably mounted in said frame substantially in the plane of, but at right angles to said groove; a crossbar connecting said rods at their upper end and having a groove facing the groove in said frame; another crossbar connecting said rods at their lower end; a lever pivoted to said frame; a washer pivoted to said lever and adapted to engage the upper face of the lower crossbar; and springs arranged to move said crossbars and rods upward; for the purpose described.

2. In broomband presses, the combination of a suitable support; a frame mounted on the support and having a groove; parallel vertical rods slidably mounted in said frame, substantially in the plane of, but at right angles to said groove; a crossbar connecting said rods at their upper end and having a groove facing the groove in said frame; another crossbar connecting said rods at their lower end; a lever pivoted to said frame; a washer pivoted to said lever and adapted to engage the upper face of the lower crossbar; hooks attached to said frame and lower crossbar; springs suspended between the hooks attached to the frame and the hooks attached to the crossbar; and means to regulate the tension of said springs; for the purpose described.

3. In broomband presses, the combination of a suitable support, having a vertical edge with sawteeth pointed downward; a frame mounted on the support and having a groove; parallel vertical rods slidably mounted in said frame, substantially in the plane of, but at right angles to, said groove; a crossbar connecting said rods at their upper end and having a groove facing the groove in said frame; another crossbar connecting said rods at their lower end; a lever pivoted to said frame; a washer pivoted to said lever and adapted to engage the upper face of said crossbar; springs arranged to move said crossbars and rods upward; and a catchlever, pivoted on the lower crossbar, adapted to engage said sawteeth; for the purpose described.

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