(No Model.)

A. SCHLINGMAN.

WASHING MACHINE.

No. 429,870. Patented June 10, 1890.

Fig. 1.

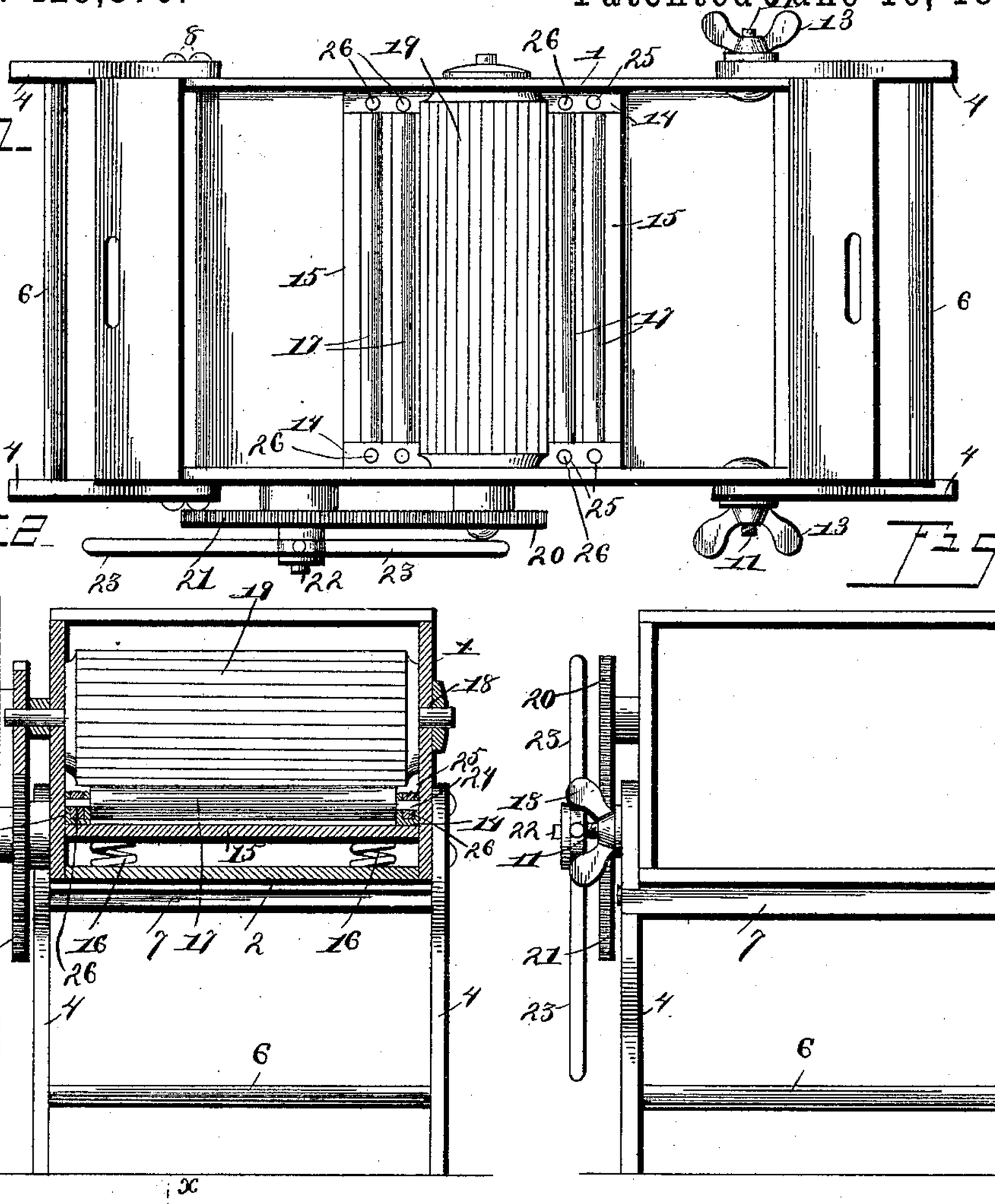


Fig. 2.

Fig. 3.

Fig. 4.

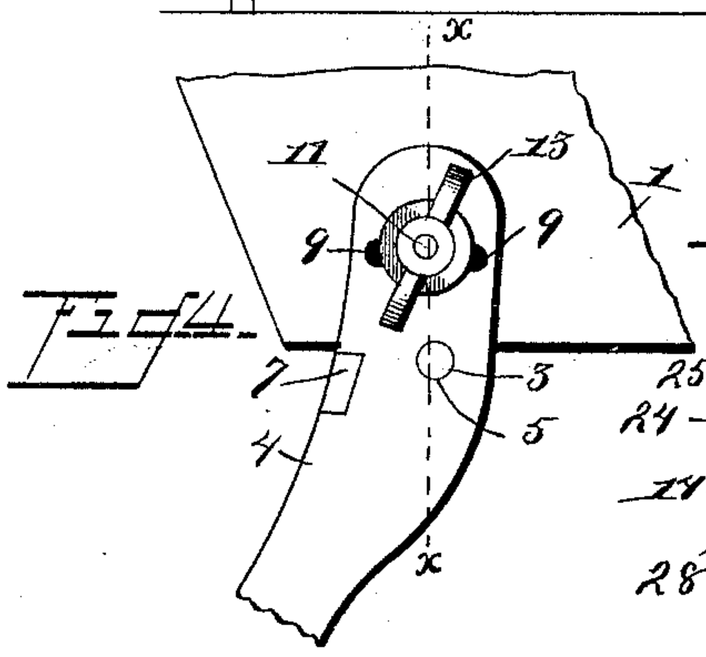


Fig. 5.

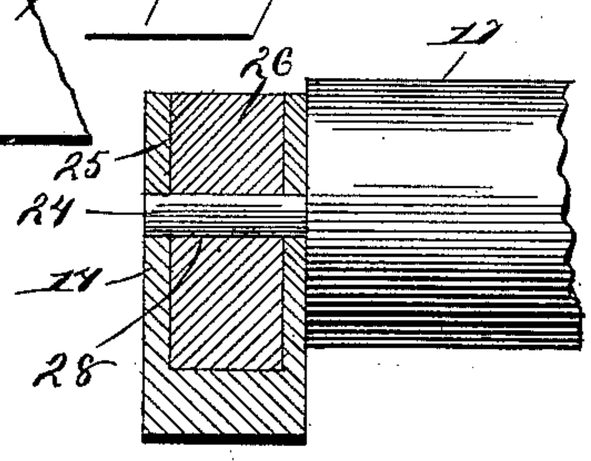
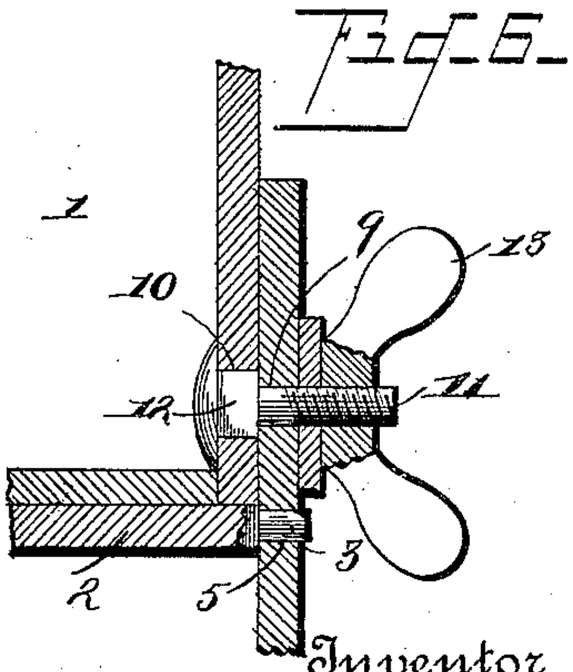


Fig. 6.



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ADOLPH SCHLINGMAN, OF WEST ALEXANDRIA, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 429,870, dated June 10, 1890.

Application filed March 13, 1890. Serial No. 343,717. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH SCHLINGMAN, a citizen of the United States, residing at West Alexandria, in the county of Preble and State of Ohio, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention has relation to improvements in washing-machines of that class employing a bed composed of a series of loosely-journaled rolls and a superimposed revolving roller.

The objects of the invention are to improve the manner of journaling the series of rolls, whereby the life of the bearings is lengthened and therefore the durability and efficiency of the machine increased; furthermore, to provide means for adjusting the suds-box, so that the same may assume a perfectly-horizontal position regardless of any inequalities of the floor or base upon which it stands.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of a washing-machine constructed in accordance with my invention. Fig. 2 is a transverse section of a machine. Fig. 3 is an end elevation. Fig. 4 is a partial side elevation. Fig. 5 is a detail in section of one of the joints of the rollers. Fig. 6 is a detail in vertical section on the line *x x* of Fig. 4.

Like numerals of reference indicate like parts in all the figures of the drawings.

The suds-box 1 is of rectangular or other shape, and is provided near its opposite ends and upon its bottom with transverse cleats 2, terminating at opposite sides of the suds-box and beyond the side walls of the same in reduced tenons or bearings 3.

4 represents opposite pairs of supporting-legs, which are provided near their upper ends with openings 5 to receive the reduced tenons 3. Each pair of legs 4 is connected near their lower ends by a rung 6 and near their upper ends and resting against the bottom by a cross cleat or bar 7, the ends of which are let into the edges of the legs. So far as thus constructed one pair of legs is the duplicate of the other, and one pair is secured by screws 8 permanently to the side walls of the suds-box. The opposite pair of legs is provided with curved slots 9, which register with an opening 10, formed in the side walls of the suds-box, said opening being rectangular, and inserted through the opening and slot is a threaded bolt 11, the square shoulder 12 of which rests within the squared opening, and the threaded end of said bolt passes through the opening and slot and outside of the leg is provided with a washer 12 and a thumb-screw 13. The cross-cleat 7 in the pivoted pair of legs is arranged a slight distance below the bottom of the suds-box, so that a slight movement is permitted for the legs upon the reduced tenons. In this manner it will be apparent that all inequalities or inclinations of the floor or other base upon which the machine is mounted may be compensated for and the suds-box maintained in a perfectly-horizontal position, thus maintaining the water in the suds-box upon a level.

14 represents opposite side bars mounted in the bottom of the suds-box and connected upon their under sides by cross-strips 15, the side bars and strips combining to form a roller-frame, and mounted upon a series of coiled springs 16, secured to the bottom of the suds-box.

Between the side bars 14 there is mounted a series of loose rollers 17, and journaled in bearings 18 above said frame is a revoluble roller 19, the shaft of which is provided at one side and without the box with the small pinion 20, driven by and meshing with a large gear 21, mounted upon a stub-shaft 22, which also carries and has fixed thereupon a series of radiating arms 23, by which the shaft and gear may be rotated.

The manner of constructing the bearings for the loose rollers 17 is best illustrated in Fig. 5 of the drawings, and is as follows: At a point in the bottom of the strips 14, in which it is desired to form the bearing-openings for the reception of the reduced ends 24 of the loose rollers 17, I form a cylindrical or other shaped recess 25, and in the same insert a snugly-fitting plug 26, agreeing in shape with the recess, which plug is preferably formed of hard wood, so that the grain of the plug and that of the side bars are at a right angle

to each other. I then bore the bearing-openings 28, so that they extend directly through the plug in a transverse manner and also through the side bars. By this it will be observed that the grain of the wood within the bearings is presented at two different angles to the revolving shaft of the roller, whereby the durability of the bearings is greatly increased, as will be readily understood.

Having thus described my invention, what I claim is—

1. In a washing-machine of the class described, the combination, with the opposite side bars 14, the bottoms of which are provided with a series of recesses 25 and with plugs of hard wood, the grain of which is at an angle to the grain of the side bars, and perforations formed in the side bars and passing transversely through the plugs, of the series of rollers 17, having the reduced ends or spindles 24 mounted in the bearings, substantially as specified.

2. In a washing-machine, the combination, with a suds-box and a pair of legs for supporting one end of the same, said box being provided with opposite openings in its side walls, of a threaded bolt mounted in each of the openings, opposite legs provided near their upper ends with curved slots for the reception of the bolts and below said bolts with perforations, a cleat secured to the bottom of the box and provided with reduced ends entering the perforations and serving as a pivot-bearing for the legs, a washer and thumb-screw mounted on each of the bolts, and a bar connecting the legs and adapted to limit the movement of the same by coming in contact with the bottom of the suds-box, substantially as specified.

3. The combination, with the suds-box of a washing-machine having its side walls provided with square openings, of opposite pairs of legs provided near their upper ends with openings, bearings projecting from the sides of the box near its opposite ends and entering the openings of the legs, which latter are provided above said openings with curved slots, and the opposite threaded bolts 11, passing through the curved slots of the legs and provided with a thumb-nut 13, said bolts being provided near their rear ends with square portions 12, snugly fitting the square openings in the side walls, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ADOLPH SCHLINGMAN.

Witnesses:

HERMAN EHBERS,

ADOLPH EDWARD SCHLINGMAN.