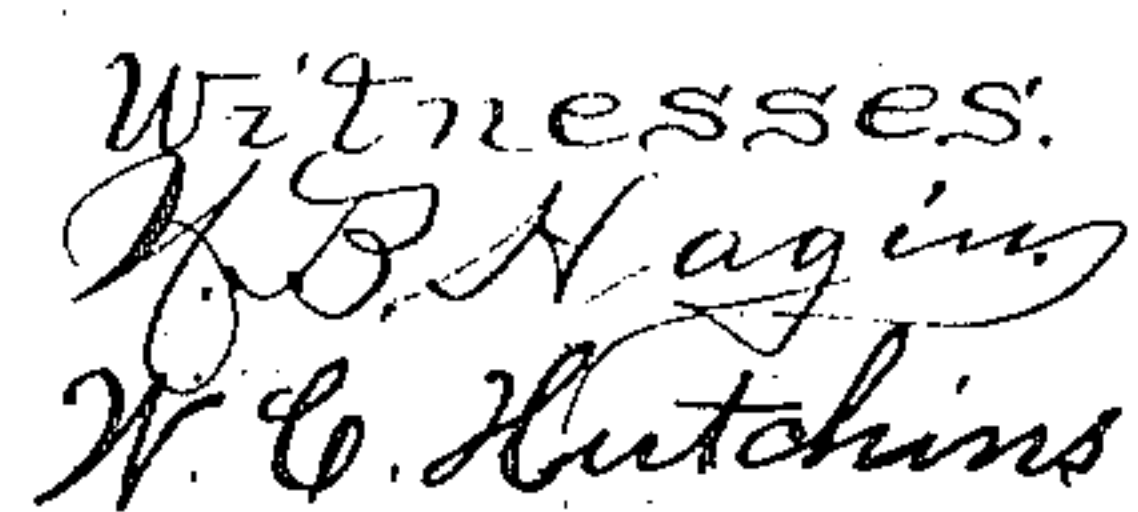


2 Sheets—Sheet 1.

No. 435,913.

Patented Sept. 9, 1890.



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(No Model.)

2 Sheets—Sheet 2.

P. T. BENBOW.
WASHING MACHINE.

No. 435,913.

Patented Sept. 9, 1890.

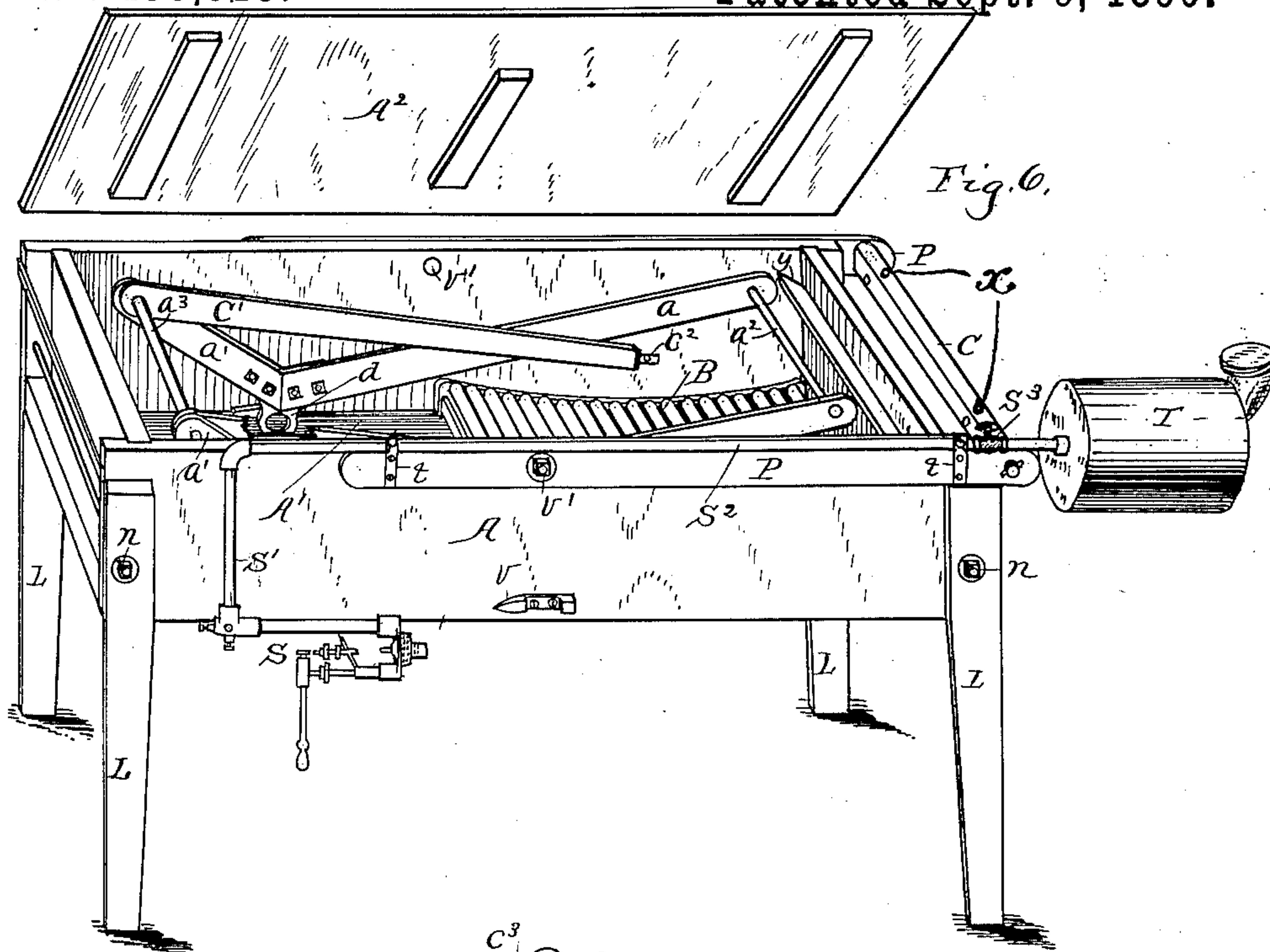


Fig. 6.

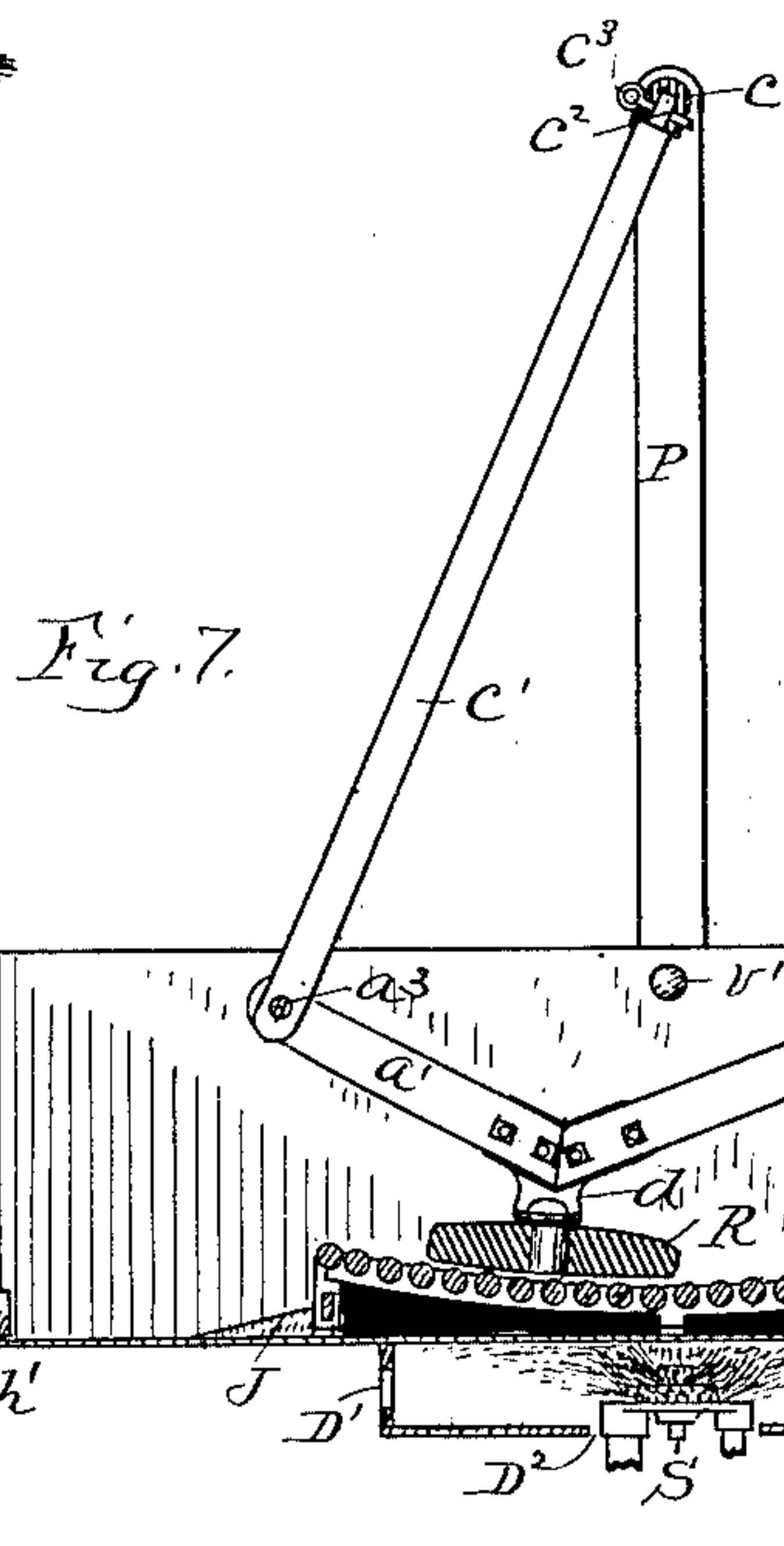


Fig. 7.

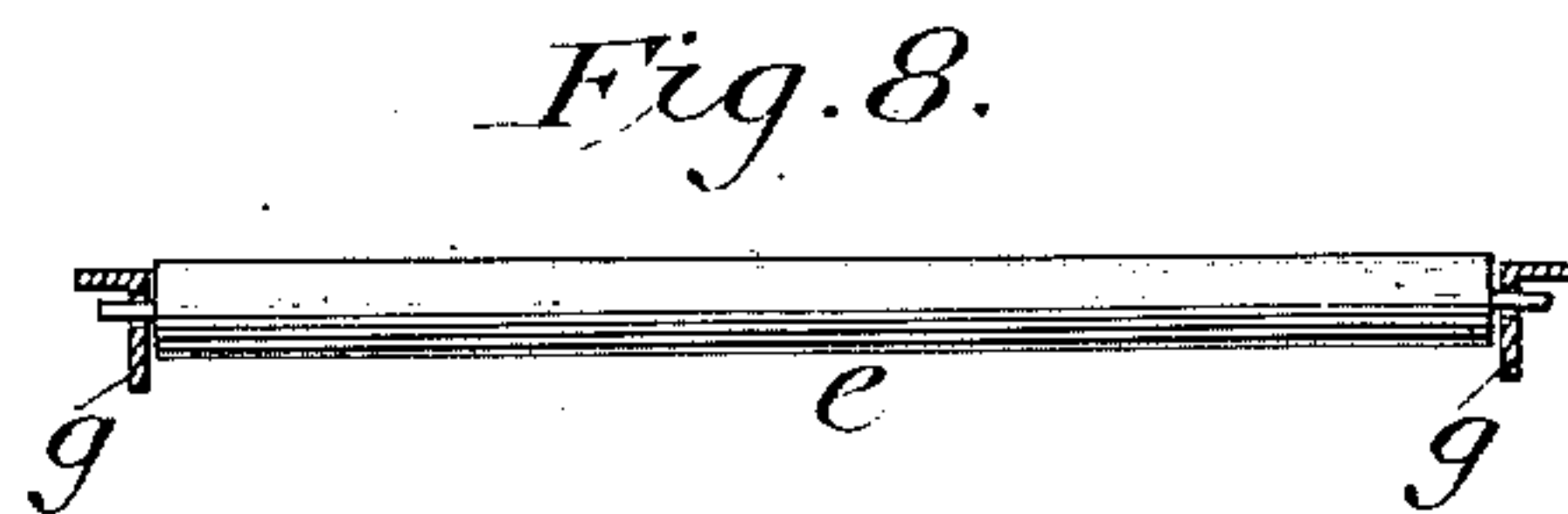


Fig. 8.

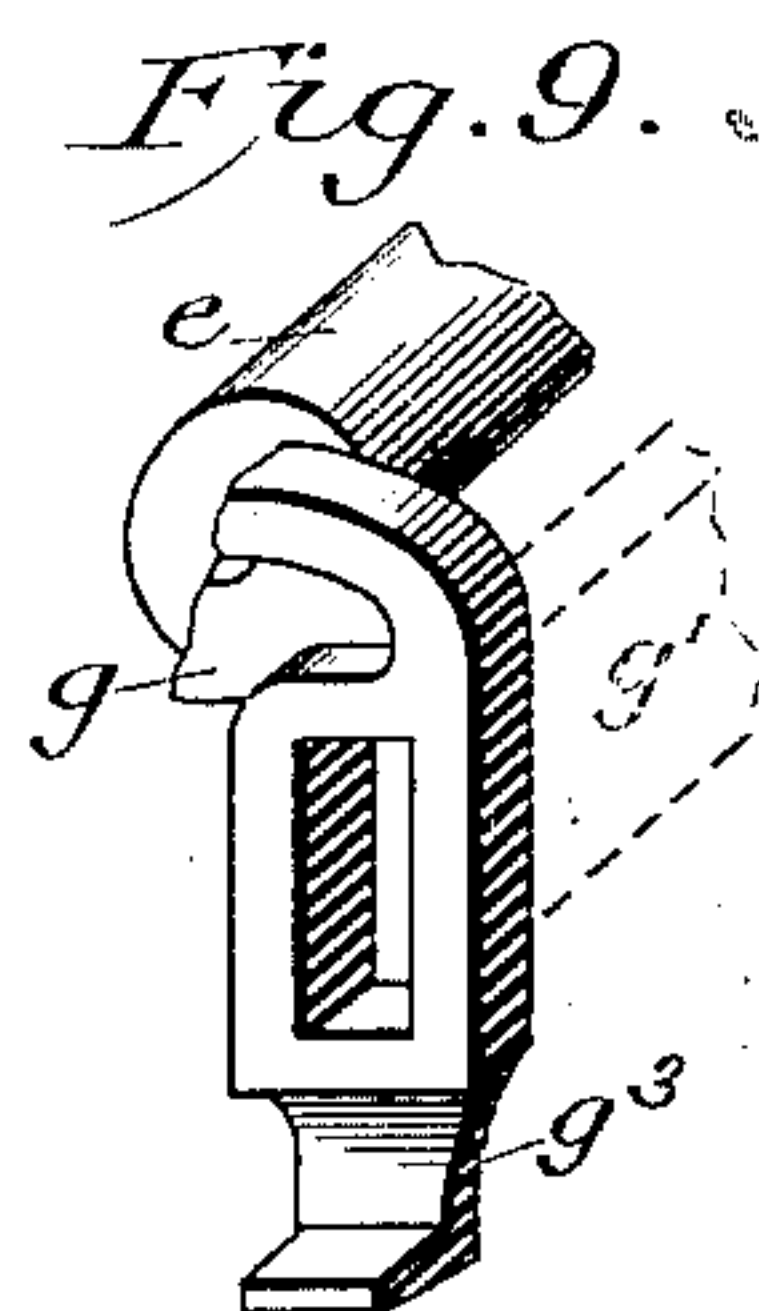


Fig. 9.

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UNITED STATES PATENT OFFICE.

PARIS T. BENBOW, OF WICHITA, KANSAS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 435,913, dated September 9, 1890.

Application filed October 28, 1889. Serial No. 328,474. (No model.)

To all whom it may concern:

Be it known that I, PARIS T. BENBOW, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings, and the letters of reference thereon, forming a part of this specification, in which—

Figure 1 is a perspective elevation of my invention when in service. Fig. 2 is a detail perspective view of the rub-board and its immediate parts. Fig. 3 is a similar view of the roller-bed of the machine. Fig. 4 is a cross-sectional view of one upright of the machine and of the upright burner-pipe, showing a plan of its fastener. Fig. 5 is an under perspective view of the machine-body, showing the bottom and flame-protector thereof. Fig. 6 is a perspective elevation of the machine with its parts folded when not in service, and the cover thereof raised to show the interior. Fig. 7 is a vertical longitudinal sectional elevation of the machine with its parts in position when in use. Fig. 8 is a cross-sectional view of the roller-bed of the machine, and Fig. 9 is a detailed perspective view of the roller-bed corner-foot of the machine.

This invention relates to certain improvements in that class of washing-machines wherein the body thereof is a rectangular box supported off the floor by means of four standards or legs, and a roller-bed is arranged in the bottom, submerged in the water, and acted upon to rub fabric articles in process of washing by a rub-board suspended from a swing, which is provided with extending handles for operating the rub-board; also, wherein water in the machine is heated by means of a gasoline-burner, which burner is adjustably secured to the machine, which improvements are fully set forth and explained in the following specification and claims.

Referring to the drawings, A represents the machine-body provided with the legs L and having the metallic bottom A', which bottom is centrally provided with the depending me-

tallic flame-protector D, having in its bottom part the opening D², through which the burner is introduced, and in its side portions the series of holes or perforations D'.

B' is the roller-bed of the machine, and consists of the two side castings g, which are curved to give a curved form to the bed, and provided with the end feet g³ and center feet g², which rest upon the machine-bottom, and said castings are arranged parallel with and a distance from each other and connected together by means of the cross-bars g', which bars and castings form a frame for the support of the rolls of the bed, and of the series of rolls e, which are respectively provided with end journals bearing in corresponding holes in the castings g, and thus supported so that they may rotate freely. The said roller-bed is arranged in the bottom of the machine-body, centrally between the ends thereof, as shown, and is held from sliding along on the bottom by means of the stops J J, which are secured to the machine-body at each end of and adjacent to the roller-bed.

P P are a pair of uprights pivotally secured to body A, one at either side thereof near the top, as shown at v', in such manner as to be adapted to turn to an upright position, as shown in Fig. 1, or to a reclining position. (Shown in Fig. 6.) The lower ends of said uprights are made to yield somewhat, so that they will spring from the body A, and when turned to an upright position be retained in such position by means of the keepers v, by riding up the inclined shoulders of said keepers when being turned, and springing in between the two shoulders of the keepers when in a full upright position. In turning down said uprights they are first sprung off from body A to clear the keeper-shoulders, after which they are lowered so that their outer end portion will rest on the upper part of the machine-legs at the side of the machine-body, as shown.

C is the yoke-bar, having a trunnion at either end seated in holes in the uprights P, connecting said uprights at their upper ends, as shown. Removably secured to and depending from said yoke-bar are the swing-

arms c' , having reduced ends c^2 entered into holes of said yoke-bar and held therein by means of pins c^3 , as shown in Fig. 7.

a a are the handles, having the extending parts a' a' arranged at an angle thereto, as shown, connected therewith by means of the castings d , as shown, and the two side parts of the said handle are connected by means of the rounds a^2 and a^3 , and the extensions a' a' are pivotally connected with the lower ends of the swing-arms c' . The castings d are respectively provided with the rocker-flange d' and with a depending ear, and R is the rub-board having a series of holes r through it, and it is pivotally secured between the depending ears and under the rocker-flanges of said castings d by means of screws d^2 , one at either end, as shown in Fig. 2, the screws, being smaller than the holes r , permitting a limited movement of the rockers d' upon the rub-board, and by such construction the rub-board may be raised or moved by raising or moving the handles a ; also, the rub-board is enabled, when moving from end to end of the roller-bed, to adapt its position to the face of the said roller-bed by turning or partially turning on its pivotal bearings, and to be held to relieve said pivotal bearings from excessive strain by means of the rockers d' bearing against the upper part thereof.

S represents an ordinary gasoline-burner, having the short horizontal lead pipe S' and the vertical standard pipe S^2 , provided at its upper end with the supply-tank T , and adjustably held to one upright P by means of the forked plates t and thumb-screws t' , by being entered into the forks and held therein by said screws, as shown more particularly in Fig. 4, adapting the burner S , when in an upright position, to turn under the machine and be slightly raised, so as to enter through the opening D^2 into the flame-protector D , as shown in Fig. 7, where it is ignited and generates heat in contact with the metallic bottom of the machine, where the flame is protected, so that the machine may be used where there is a wind-draft and not interfered with, and given such draft and air necessary to feed the flame through the end holes or perforations D' of the said protector.

As a means of utilizing the burner for heating sad-irons, cooking, &c., the machine is provided with a bracket shelf or holder removably attached to one side, as shown in Fig. 1, upon which sad-irons or articles may be placed and the burner turned to be under said shelf or holder, as shown by the dotted lines.

As a means of safety, the upright pipe S^2 is provided with a cut-off valve S^3 , as shown, to stop the flow of fluid from the tank.

In folding down the uprights P pipe S^2 and tank T lower with it, and the burner S and side lead pipe S' are brought to rest at the side of the machine, as shown in Fig. 6. When in such position, tank T may be filled. In

folding the other parts of the machine pins C^3 are removed from yoke-bar C , which releases the upper end of the swing-arms c' . The yoke-bar is then permitted to fold down at the end of the machine, out of the way with uprights P . Roller-bed B is then moved to one end in the machine, the rub-board at the opposite end, which will permit the swing-arms c' and handles a to lower within the machine, after which cover A^2 is placed on the body and forms a table of the machine, which may be used for any desired purpose.

In use the machine parts are arranged as shown in Figs. 1 and 7. Water is then put into the machine in a sufficient quantity to submerge the roller-bed and rub-board. The burner is then ignited, and from the influence thereof the water is heated and kept hot in the machine. The articles to be washed are then soaped and placed in on the roller-bed under the rub-board, and by proper movement of handles a the rub-board is given action to agitate the hot water, rub the clothes, &c., and thereby loosen and remove the dirt.

As a handy means of holding soap, the inclined board y is arranged across one end in the machine, and as a means of drawing off water from the machine a hole provided with an exterior spout h is made through one end of the body A adjacent its bottom, having a plug h' therein for retaining water in the machine while the machine is in use.

It will be observed that when the roller-bed is in position for use it is directly over the flame-protector, and the rolls thereof, which support the articles being washed, are by means of the feet of said bed supported a short distance above the machine's bottom, and thus as the flame from the burner is confined within the protector articles of clothing being washed cannot come in direct contact with the heated bottom and thereby be injured by burning.

As a means of cooking starch from the heat of the burner S , the detachable side bracket or shelf becomes very useful and saves the necessity of other fire for that purpose and confines all work pertaining to washing and laundering to the machine.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is as follows:

1. In the washing machine described, in combination with the body A , provided with the metallic bottom A' and the flame-protector D , the burner S , pipes S' and S^2 , and tank T , adjustably secured to the folding uprights and adapted to fold down with them, substantially as and for the purpose specified.

2. The combination, in the machine shown and described, with the body-receptacle, of the folding uprights P , pivotally secured to the upper outer portion of the receptacle

and provided with a portion extending below
the pivot at the receptacle side adapted to
yield laterally, and the keepers *v*, provided
with an inclined approach secured to the lower
5 outer portion of the receptacle below the up-
right pivots and adapted to catch and hold
the yielding end of the uprights when they

are brought to an upright position, substan-
tially as set forth.

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Witnesses:

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N. B. HAGIN.