

(No Model.)

2 Sheets—Sheet 1.

H. COOK.  
WASHING MACHINE.

No. 488,727.

Patented Dec. 27, 1892.

Fig. 1

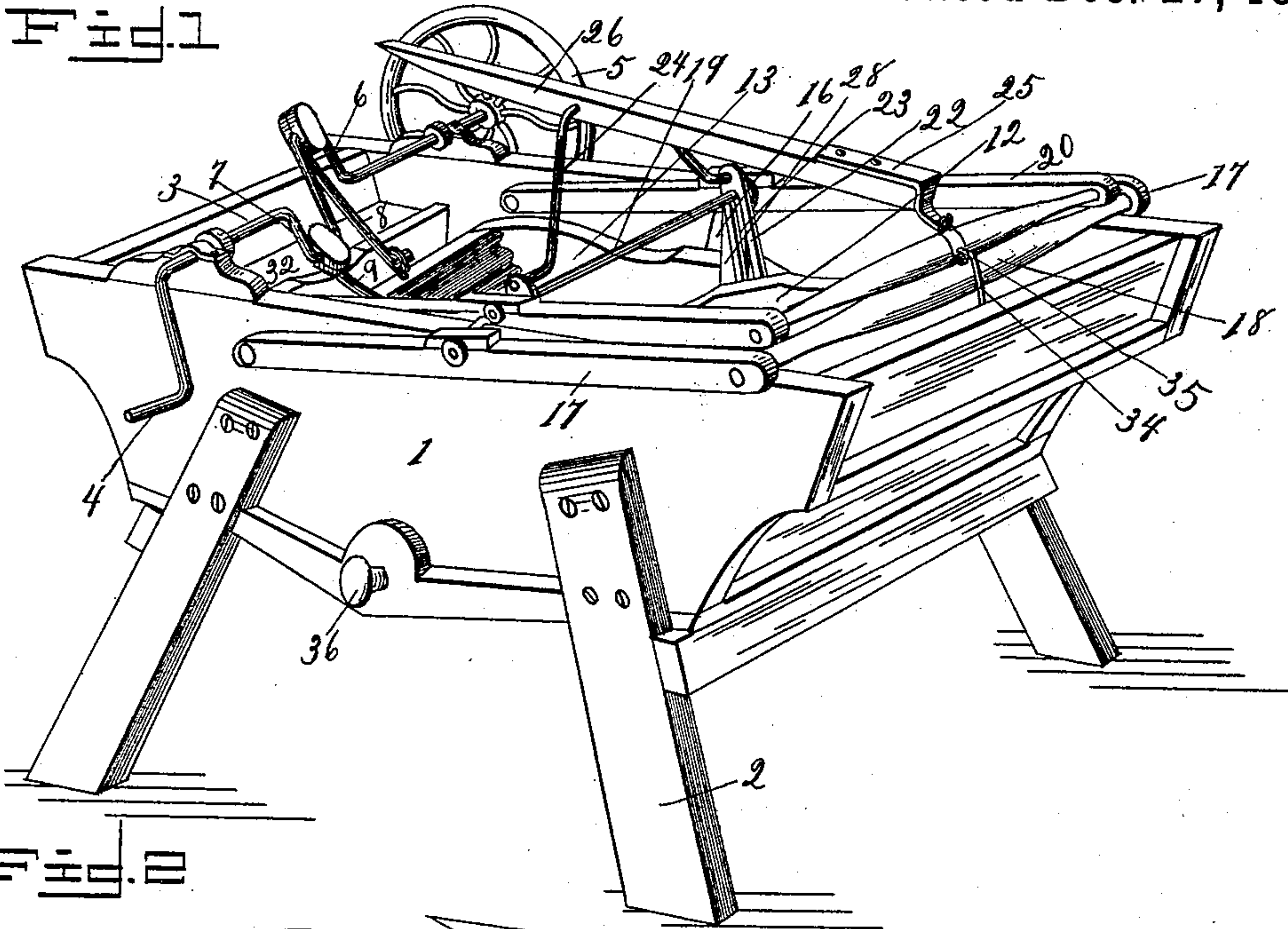
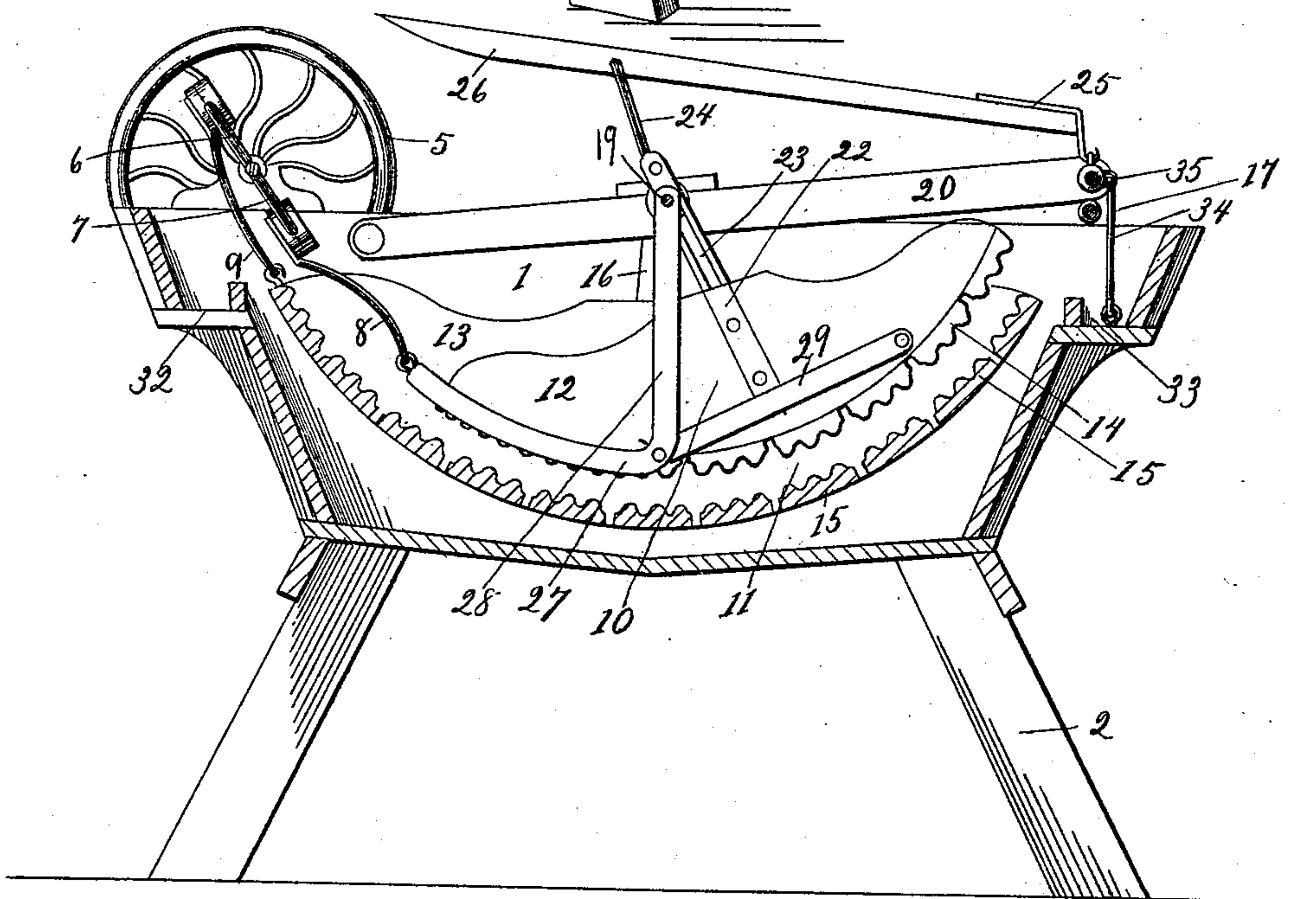


Fig. 2



Witnesses

*A. B. Mattingly*  
*J. H. Wiley*

By his Attorneys,

*C. A. Snow & Co.*

Inventor

*Hanson Cook*

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Fig. 3

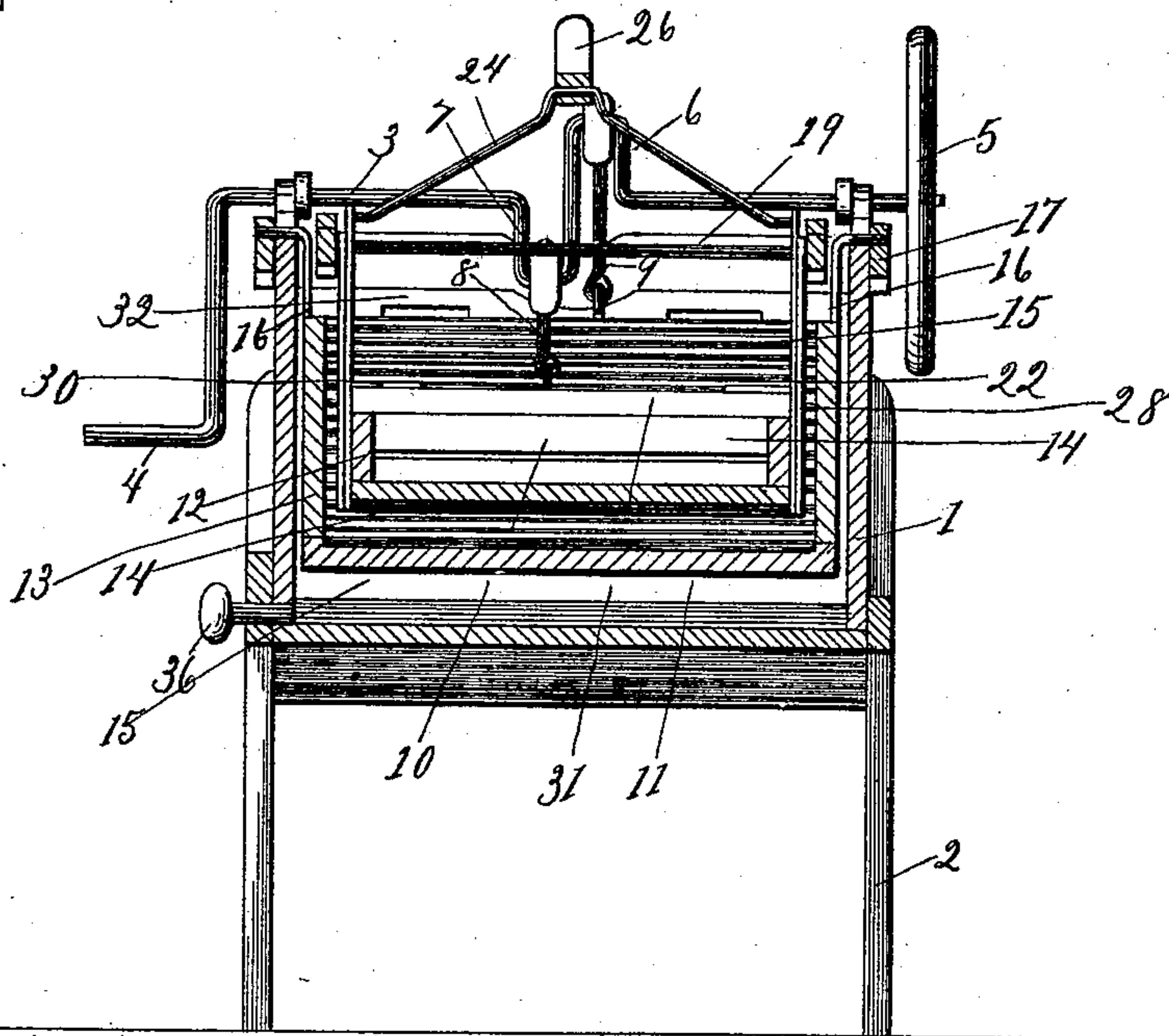
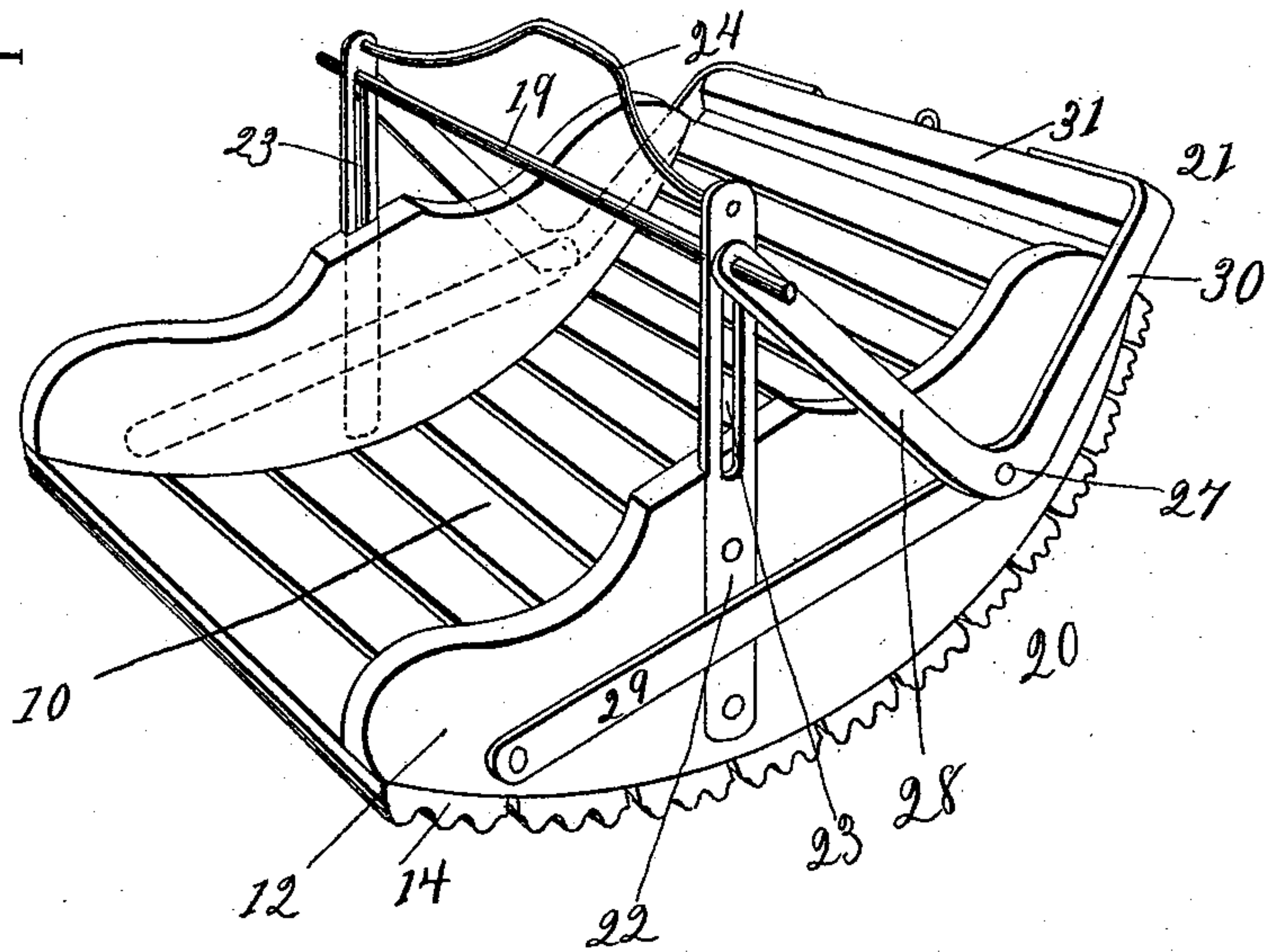


Fig. 4



Witnesses  
*A. B. Mattingly*  
*N. J. Riley*

Inventor  
*Hanson Cook*  
By his Attorneys,

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

HANSON COOK, OF HYNDMAN, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 488,727, dated December 27, 1892.

Application filed August 31, 1892. Serial No. 444,657. (No model.)

*To all whom it may concern:*

Be it known that I, HANSON COOK, a citizen of the United States, residing at Hyndman, in the county of Bedford and State of Pennsylvania, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing machines.

The object of the present invention is to improve the construction of washing machines, and to enable clothes to be thoroughly washed, and to be rubbed during washing in a manner similar to the ordinary hand washing, and to enable the pressure exerted upon clothes to be readily regulated to suit the quantity of clothes being washed.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a washing machine constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the connecting frame of the upper oscillating rubber.

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

1 designates a washing machine body supported by legs 2 and having journaled on it at one end a transverse shaft 3 which is provided at one end with a crank handle 4, and carrying at its opposite end a fly wheel 5 and having intermediate of its ends oppositely disposed crank bends 6 and 7 which are connected by pitmen 8 and 9 with upper and lower oscillating rubbers 10 and 11. The rubbers 10 and 11 are suspended within the body of the washing machine and are approximately segmental; the upper rubber 10 is provided on its lower face with a convex rubbing surface which operates in conjunction with a concave rubbing surface arranged on the upper face of the lower rubber. Each rubber consists of segmental sides 12 and 13, and transverse strips 14 and 15, the former of which have their lower faces corru-

gated, and the latter have their upper faces corrugated to form the concave rubbing surface of the lower rubber. The lower rubber 11 is suspended by hanger bars 16 from side bars 17 of an outer rectangular frame which consists of the said bars 17 having their rear ends pivoted to the outer faces of the sides of the washing machine body, and a transverse handle bar 18 which connects the front end of the side bars. This outer hinged frame is adapted to be raised and swung rearward to carry the lower oscillating rubber out of the body for the purpose of drying or cleaning the machine. The hanger bars are arranged on the outer faces of the sides of the lower rubber, and have their lower ends pivoted thereto; and the upper ends of the hanger bars are bent outward horizontally and form journals which are arranged in suitable bearings of the sides 17 of the hanger frame and the sides of the body of the washing machine. The upper rubber is adjustably suspended from a cross-rod 19 of an inner rectangular hinged frame 20 by means of a connecting frame 21 and vertical longitudinally slotted bars 22, which have their lower ends secured to the outer faces of the sides of the upper rubber, and which receive the cross-rod 19 in the slots 23. The upper ends of the slotted bars 22 are connected by a bail 24 with a lever 25 which has its front end connected with or fulcrumed on the handle bar 26 of the inner hinged frame 20, whereby the upper rubber may be raised or lowered to accommodate the quantity of clothes to be washed, and to regulate the pressure thereon. The connecting frame consists of opposite V-shaped sides 27 constructed of metal and having their front arms 28 connected at their upper ends to the cross-rod 19 and suspended therefrom, and connected at their angles by link bars 29 with the front end of the upper rubber. The rear arms 30 of the V-shaped sides, have their upper ends bent inward and secured to an end bar 31 which connects the sides and which is centrally connected with the pitman 6 of the upper rubber. The other end of the pitman 6 and also the corresponding end of the other pitman are provided with wooden bearings to lessen friction and wear. By means of the connecting frame, and the vertically slotted bars it will be



seen that the upper rubber is suspended for both oscillation and vertical adjustment. The ends of the body are extended and provided with compartments or pockets 32 and 33, and secured to the bottom of the former by a staple 5 is a hook 34, which is adapted to engage an eye 35 of the handle bar of the upper rectangular hinged frame 20, whereby the parts are secured in operative position. The upper or 10 inner hinged frame 20 is adapted to be swung back similar to the lower outer hinged frame so that the upper rubber may be swung back over the shaft to drain and dry, and to enable clothes to be placed in and removed from the 15 washing machine.

It will readily be seen that the upper and lower rubbers reversely oscillate and are adapted to rub clothes placed between their opposed rubbing surfaces, in a manner similar 20 to ordinary hand washing, and that the upper rubber is vertically adjustable to suit the quantity of clothes being washed, and to regulate the pressure thereon to prevent the fabric being worn, torn or otherwise injured. It will 25 also be apparent that both the upper and lower rubbers may be swung upward and rearward for the purpose of draining and to allow the washing machine body to be cleaned.

The washing machine body is provided at 30 one side with a drain opening which is closed by a plug 36, and the bottom of the washing machine is slanted from each end toward the middle to form a gutter to direct water to the center of the body so that the latter will readily 35 drain and quickly dry, and in a great measure be prevented from rotting, swelling or being otherwise injured from water remaining in the body.

What I claim is—

40 1. In a washing machine, the combination of a body, a lower oscillating rubber, an upper oscillating rubber, a cross-rod, bars projecting from the upper rubber and provided with longitudinal slots receiving the cross- 45 bar, a connecting frame receiving the rear end of the upper rubber and having V-shaped sides, the upper ends of the front arms of which being connected to and suspended from the cross-rods, and link bars pivotally connected to the V-shaped sides at the angles 50 thereof and pivoted to the upper rubber near the front end thereof, and a lever connected with the upper ends of the slotted bars, where-

by the upper rubber may be raised or lowered, substantially as described. 55

2. In a washing machine, the combination of the body, reversely oscillating upper and lower rubbers, the inner rectangular frame 20 hinged at its rear end to the sides of the body and provided with a cross-rod 19 and 60 adapted to be swung upward and rearward, a shaft, a connecting frame connected with the shaft and receiving the front end of the upper rubber and suspended from the rod 19 and connected with the front of the upper 65 rubber, slotted bars projecting from the upper rubber and receiving the cross-bar, and a lever connected with the slotted bars, substantially as described.

3. In a washing machine, the combination 70 of a body, an outer rectangular frame hinged at its rear end to the outer faces of the sides of the body, a lower oscillating rubber suspended from the sides of said frame, an inner rectangular frame having its rear end hinged 75 to the inner faces of the sides of the body and provided with a cross-rod, a connecting frame receiving the rear end of the upper rubber and having V-shaped sides and suspended from the cross-rod, and connected with the 80 front end of the upper rubber, the slotted plate receiving the cross-rod and projecting from the upper rubber, a lever fulcrumed on the front of the inner hinged frame and connected with the upper ends of the slotted bars, 85 and a shaft provided with oppositely disposed crank loops and connected respectively with the lower rubber and with the connecting frame, substantially as described.

4. In a washing machine, the combination 90 of a body, the inner and outer rectangular hinged frames, the former being provided at its front end with an eye, the upper and lower reversely operating rubbers suspended respectively from the inner and outer frames, 95 and a hook mounted on the body and adapted to engage the eye of the inner hinged frame, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 100 the presence of two witnesses.

HANSON COOK.

Witnesses:

WILLIAM COOK,  
M. H. KRAMER.