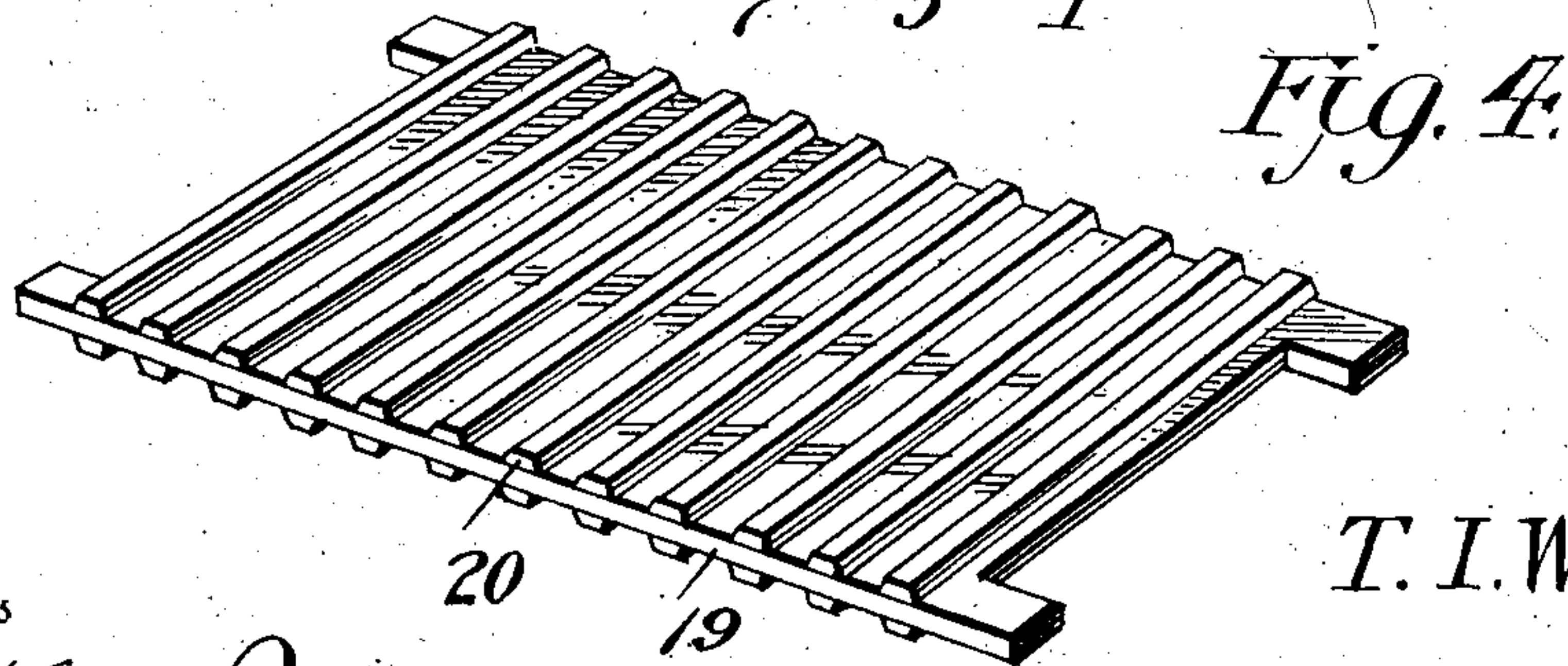
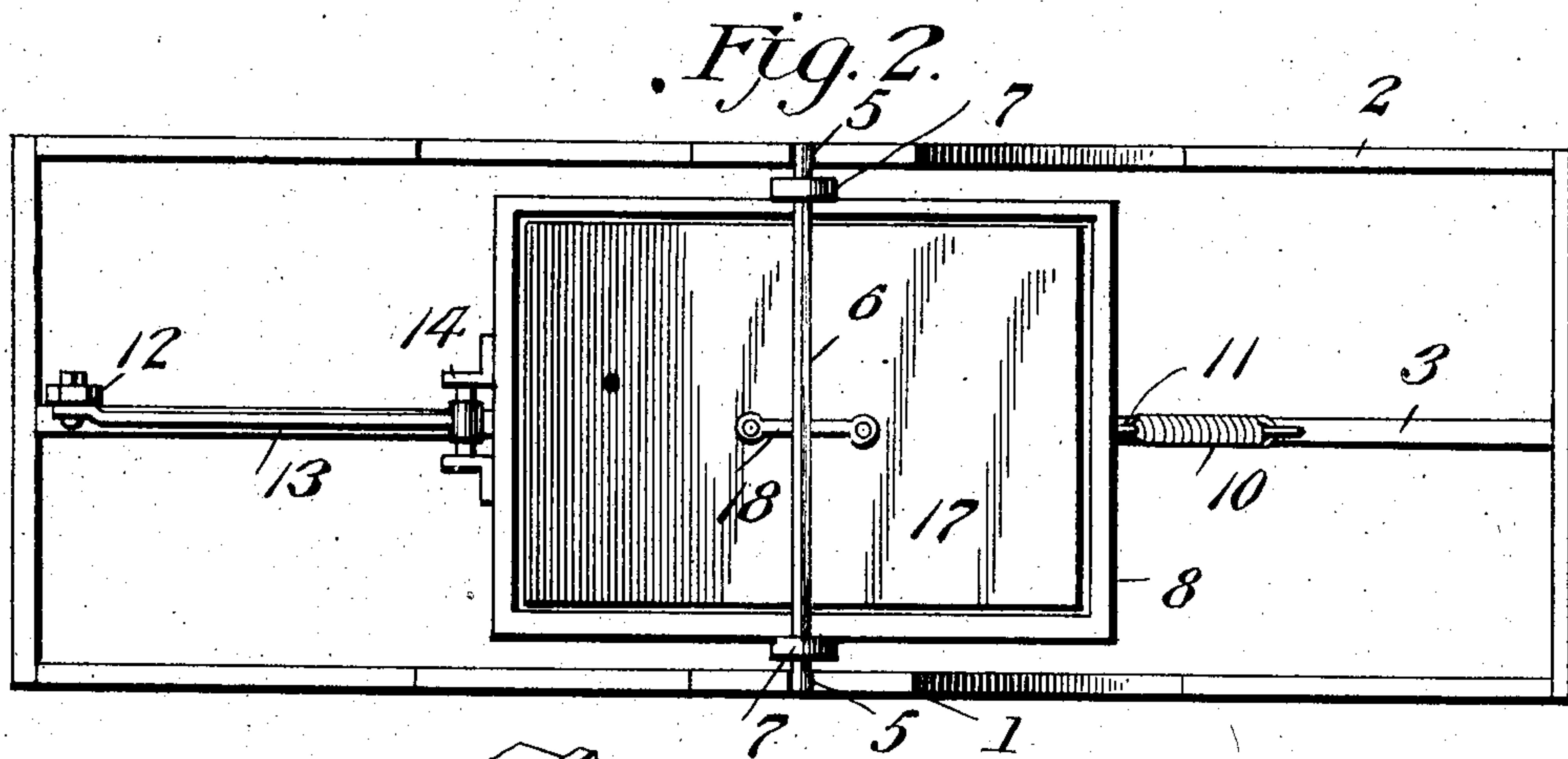
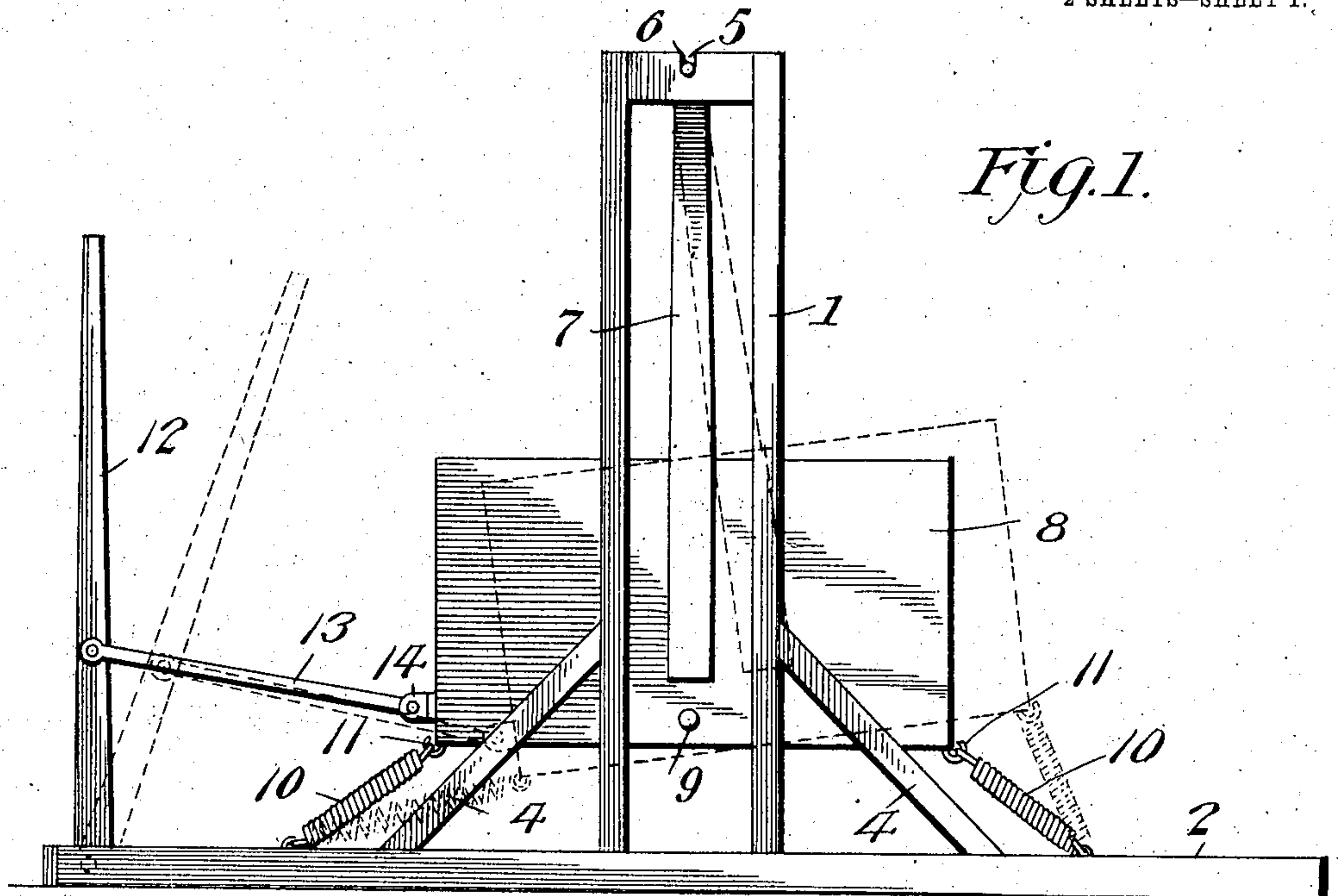


No. 834,350.

PATENTED OCT. 30, 1906.

T. I. WATSON.  
WASHING MACHINE.  
APPLICATION FILED JULY 14, 1905.

2 SHEETS—SHEET 1.



Witnesses  
*Geo. Schman*  
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# UNITED STATES PATENT OFFICE.

THOMAS I. WATSON, OF FOREST CITY, NORTH CAROLINA.

## WASHING-MACHINE.

No. 834,350.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed July 14, 1905. Serial No. 269,664.

*To all whom it may concern:*

Be it known that I, THOMAS I. WATSON, a citizen of the United States, residing at Forest City, in the county of Rutherford and State of North Carolina, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention has relation to washing-machines; and it consists in the construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a washing-machine embodying the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a detail vertical section longitudinally through the tub. Fig. 4 is a perspective view of the intermediate rubbing member or board. Fig. 5 is a side elevation showing a slightly-modified embodiment of the device. Fig. 6 is a detail view, partly in section, showing the tub-operating mechanism, the section being on the line 6 6 of Fig. 5.

Referring to the drawings, and particularly to Figs. 1 to 4, 1 designates vertical uprights or standards attached at their lower ends to the side bars of a base-flange 2, which is preferably of the form herein shown, and includes a central longitudinal beam or timber 3, there being provided at the upper ends of the standards 1, which are strengthened by inclined braces 4, bearing-openings 5, having journaled therein a transversely-extending rock-shaft 6, on which is fixed the upper ends of vertically-depending bars or hangers 7, fixedly attached at their lower ends to and adapted to sustain for oscillatory movement a substantially rectangular vessel or tub 8, having a discharge opening or port disposed adjacent its bottom and normally closed by a block 9, there being connected with the beam 3 a pair of normally contracted springs 10, disposed, respectively, at opposite ends of the tub and detachably engaged with the latter through the medium of engaging members or hooks 11 for a purpose which will presently appear.

Pivoted to the beam 3 at one end of the frame is an operating member or lever 12, connected by a rigid element or link 13 with the tub 8 on which is provided a pair of spaced brackets 14, between which the adjacent end of the link 13 is pivoted, it being apparent that under this arrangement when

the lever 12 is suitably operated an oscillatory movement will be imparted to the tub 8, and, further, that as the tub swings back and forth the springs 10 will be alternately expanded and contracted, thereby automatically effecting the return movement of the tub in either direction and materially decreasing the power exerted by the operator.

Provided on the bottom of the tub 8 and within the latter is a series of relatively spaced ribs 15, similar ribs 16 being provided on the normally inner face of a removable cover 17, designed to seat in the tub over the clothes and having a bail or handle 18 by which it may be manipulated, there being arranged within the tub and adapted in practice to lie centrally between the bottom of the latter and cover 17 a rubbing member or board 19, having upon its opposite faces transversely-extending bars or ribs 20, corresponding to the ribs 15 and 16 and cooperating with the latter for rubbing the fabric during the washing operation.

In practice the clothes having been arranged in the tub, as illustrated in Fig. 3, with the member or board 19 and cover 17 properly positioned, the operator grasps the lever 12 and swings the same back and forth, thereby imparting oscillatory movement to the tub, as heretofore explained, this movement serving to cause the fabric to shift back and forth from end to end of the tub and subjecting the same not only to the rubbing action of the elements or ribs, but also causing the water and suds to pass back and forth through the fabric, thereby rapidly and effectually cleansing the latter.

In Figs. 5 and 6 the construction and operation of the parts are identical with that above described, except that the element or link 13 in this form of the device is eccentrically pivoted to a driving-pinion 21, journaled for rotation upon a vertical standard or support 22, fixed to the base-frame 2, said pinion being in mesh with a driving-gear 23, also rotatively sustained by the standard and having a crank-handle 24. In this form of the device when the handle 24 is grasped and operated for rotating the gear 23 the pinion 21 being of relatively smaller size than the gear will be driven at a correspondingly higher speed for imparting a rapid oscillation to the tub 8.

It is to be observed that under the constructions disclosed in both forms of the device the springs 10 and link 13 may be readily disengaged from the tub 8 and the latter



removed from the frame by unseating the shaft 6 from the bearing-openings 5, thus permitting the machine as a whole being readily dismantled when desired or circumstances  
5 may require.

From the foregoing it is apparent that I produce a comparatively simple inexpensive device of the character described admirably adapted for the attainment of the ends in  
10 view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described my invention, what  
15 I claim is—

A washing-machine comprising a base-frame, a plurality of vertical standards secured on opposite sides thereof, cross-pieces secured to the upper ends of the standards

having journal-bearings therein, a central  
20 longitudinal cross-bar secured to said frame, a tub, hangers secured to the opposite sides of the tub, a rock-shaft fixed to the upper ends of the hangers and mounted in the journal-bearings, a cover mounted in the tub,  
25 and expansible and retracting springs secured to the opposite ends of the tub and to the central longitudinal cross-bar, a link pivotally connected to the tub, its opposite end being pivoted to operating means which  
30 serves to give the tub an oscillating movement.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS I. WATSON.

Witnesses:

J. F. FLACK,  
EVA FLACK.