

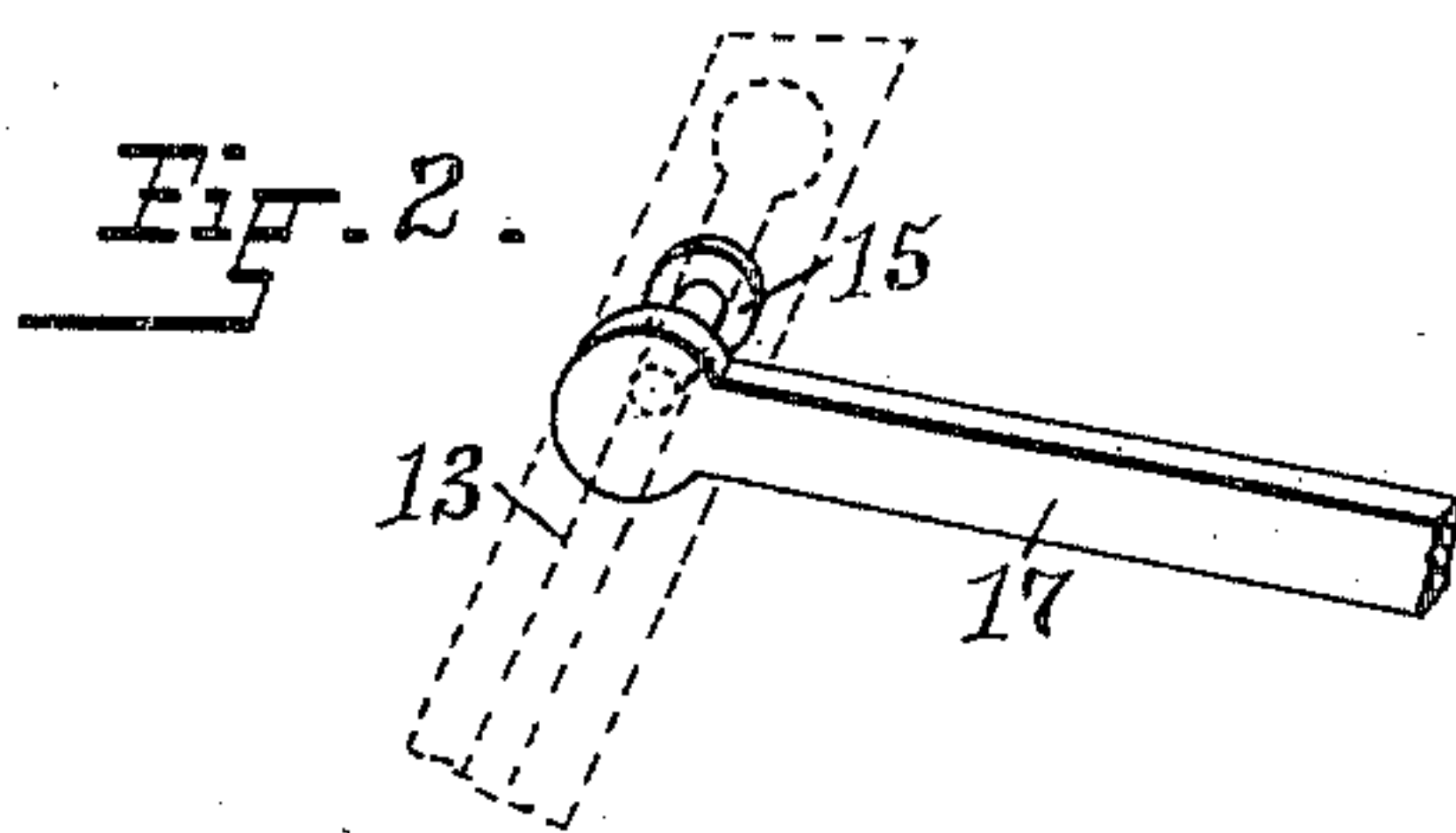
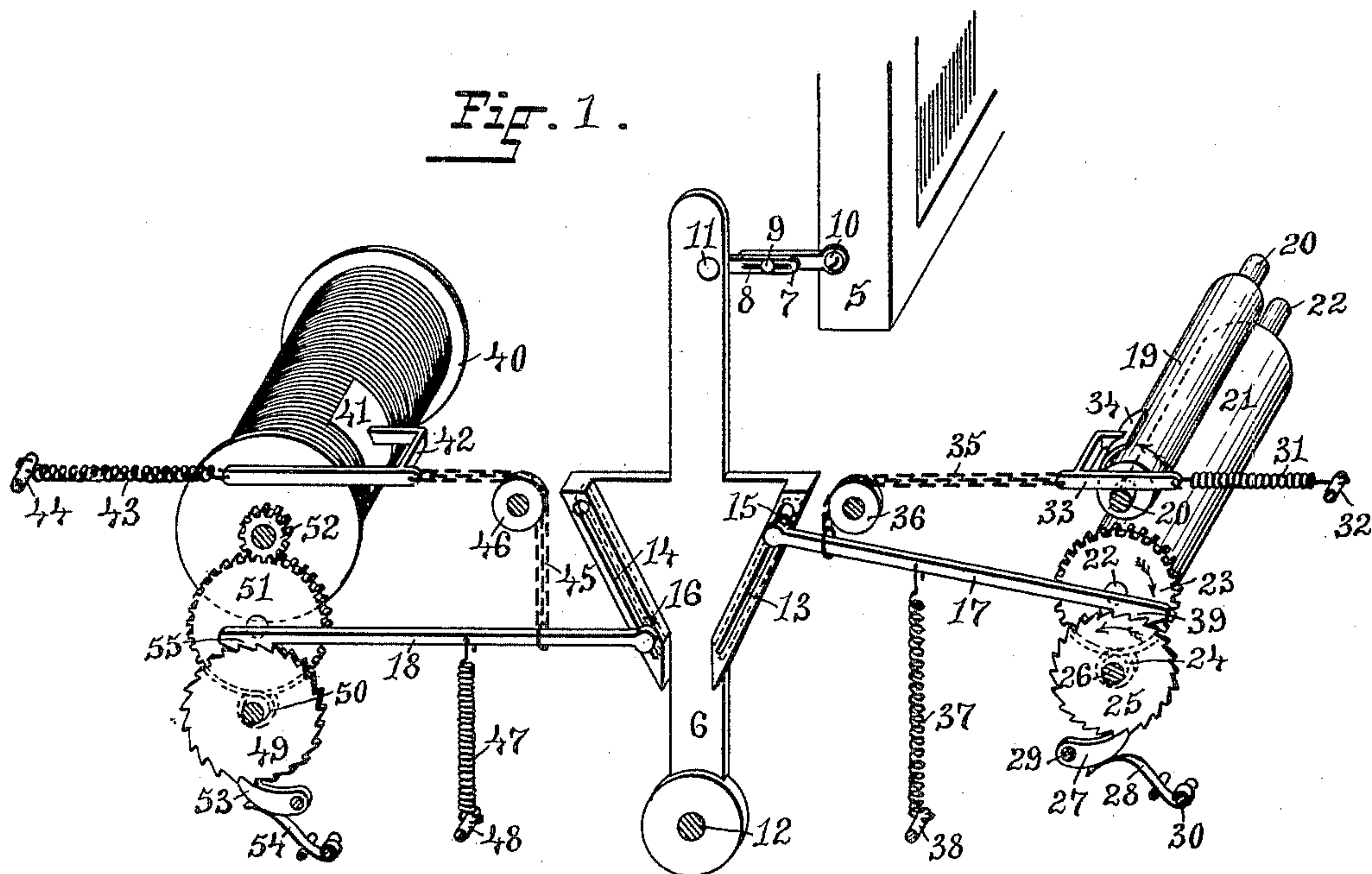
(No Model.)

W. C. TAUCKE.

LET-OFF AND TAKE-UP MECHANISM FOR LOOMS.

No. 411,172.

Patented Sept. 17, 1889.



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WILHELM CHRISTIAN TAUCKE, OF CENTREVILLE, RHODE ISLAND.

LET-OFF AND TAKE-UP MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 411,172, dated September 17, 1889.

Application filed February 7, 1889. Serial No. 299,038. (No model.)

To all whom it may concern:

Be it known that I, WILHELM CHRISTIAN TAUCKE, of Centreville, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Let-Off and Take-Up Motions for Looms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to devices whereby is effected the uniform taking up of the cloth as the same is woven in a loom, and whereby as the cloth is woven and taken up the letting off of sufficient warp for the next succeeding pick or picks of the loom is effected.

The object of my invention is to provide means positive in their action which will let off only sufficient warp for the weaving of a given quantity of cloth and that will take up the cloth as woven.

To the aforesaid purpose my invention consists in the various parts and combinations of parts, as will be more fully set forth hereinafter.

In the said drawings, Figure 1 illustrates my device in perspective, the side frame and other parts of the loom not necessary to my invention being removed. Fig. 2 is a view of part of the rack-lever, showing the ball attached thereto, the slide being in broken lines.

In the said drawing like numbers of reference designate corresponding parts throughout.

Referring to the drawings, the number 5 designates the reed of a loom, which is mounted on and moves with the lay. (Not shown.) To this reed 5 the pivoted lever 6 is connected by the adjustable link 7. This link 7 is made in two parts, each part being provided with a slot 8, through which the bolt 9 passes, and the parts being attached, respectively, to the reed 5 by the screw 10 and to the lever 6 by the bolt 11. The lever 6 is pivoted on the pin or bolt 12, which passes through the lever and supports the lever to the side frame. Two diverging angular slots or grooves 13 14 are formed on the lever 6. In these slots 13 14 the balls 15 16, attached to the ends of the rack-levers 17 18, which rack-

levers are provided with the racks or teeth 39 and 55, respectively, can be freely moved up or down, and with them the levers 17 and 18.

By placing the slots 13 and 14 at an angle diverging in opposite directions from the center of the lever 6 the pawls on the ends of the rack-levers 17 18 are kept in engagement with the ratchet-wheels 25 and 49 in all the positions of the levers, practically in the same manner as if the slots 13 and 14 were in the form of segments of a circle of which the contact-points of the pawls with the teeth of the ratchet-wheels were the centers. As the lever 6 is pivoted at its lower end and the slots 13 and 14 oscillate with the lever, the reciprocating movement of the rack-levers is increased as the ends connected with the oscillating lever 6 are raised in the slots and diminished as the same are lowered.

The cloth-beam 19 is supported by the hubs 20 in the customary bearings formed in the side frames and rests on the sanded or roughened roll 21, also supported in suitable bearings by the hubs 22, as is the ordinary and well-known practice. The roll 21 has the gear 23 attached to one end, which gear intermeshes with the pinion 24, secured to and revolving with the ratchet-gear 25, which is supported on the bearing-pin 26, and is prevented from moving backward by pawl 27, which is held against the ratchet-gear 25 by the spring 28, the pawl and spring being supported on the side frame by the pins 29 and 30, respectively.

One end of the spring 31 is attached to the pin 32, secured to the side frame, and at the other end to the L-shaped link 33, carrying the shoe or follower 34, and is also connected to the rack-lever 17 by the chain 35, passing over the sheave 36. The spring 37 has one end secured to the rack-lever 17 and the other to the pin 38, and has a downward pull on the lever 17 against the spring 31.

The let-off part of the device consists in a similar combination of parts to the take-up device.

In the let-off mechanism, 40 designates the warp-beam, and 41 a shoe or follower resting on the warp and forming part of the L-shaped link 42, to which one end of the spring 43 is secured, the other end being attached to the