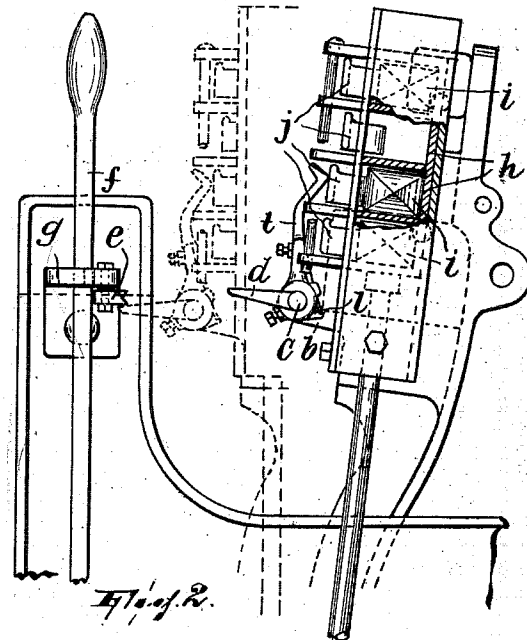
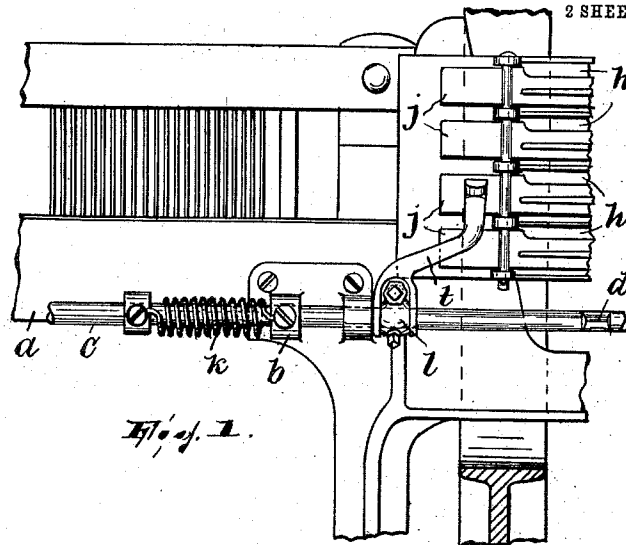


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 APPLICATION FILED SEPT. 20, 1911.

1,018,686.

Patented Feb. 27, 1912.

2 SHEETS—SHEET 1.



WITNESSES

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 Eric Kaufmann.

INVENTOR,

Henry Talks,

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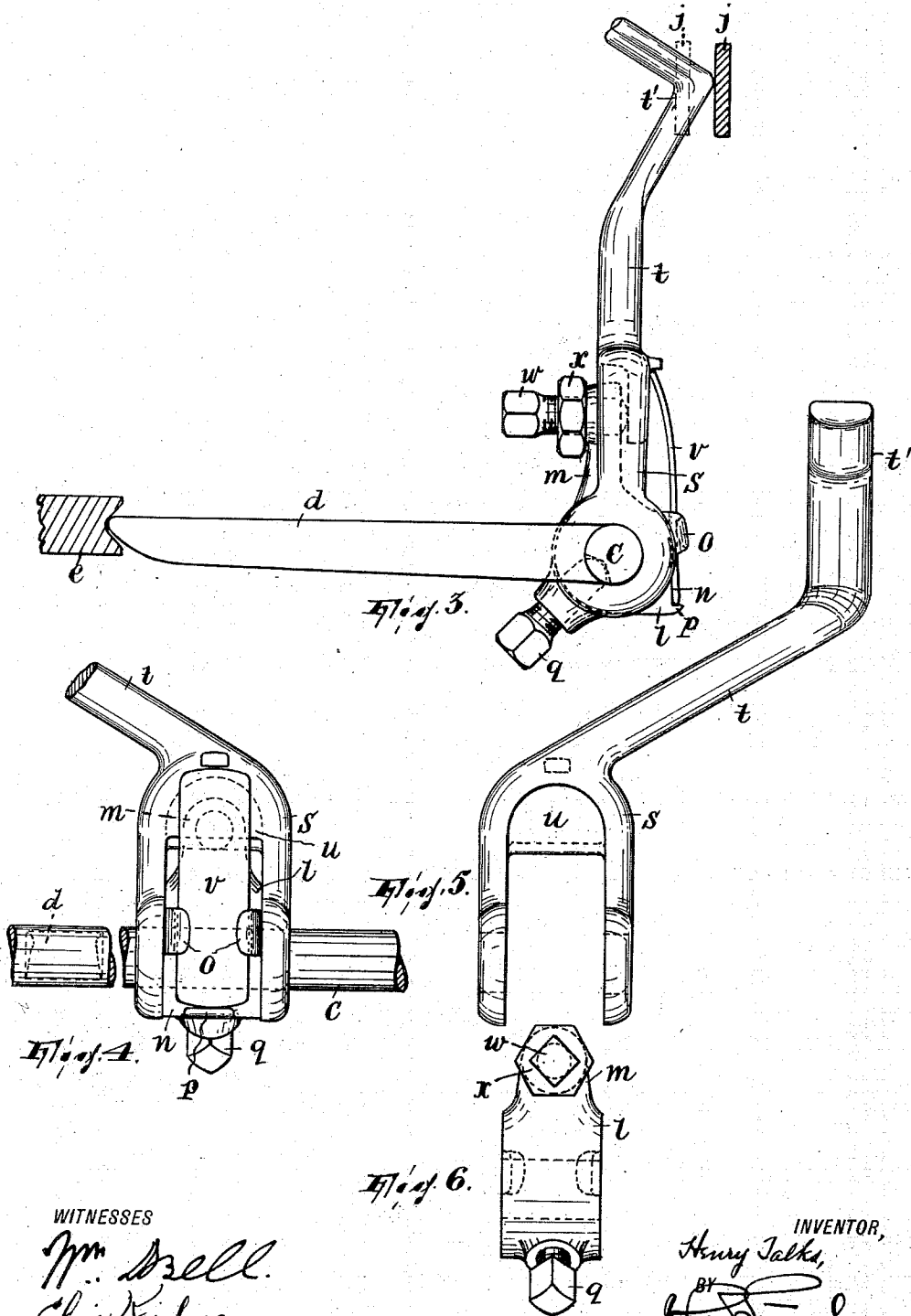
Howard.

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HENRY TALKS, OF ASTORIA, NEW YORK.

PROTECTING MECHANISM FOR LOOMS.

1,018,686.

Specification of Letters Patent.

Patented Feb. 27, 1912.

Application filed September 20, 1911. Serial No. 650,404.

To all whom it may concern:

Be it known that I, HENRY TALKS, a citizen of the United States, residing at Astoria, in the county of Queens and State of New York, have invented certain new and useful Improvements in Protecting Mechanism for Looms, of which the following is a specification.

My invention relates to means for stopping weaving looms in the absence of the shuttle in each of the working boxes at the moment of the beating up of the lay, and particularly to that class of such devices comprising, with the knock-off lever, a rocker-structure having a dagger to engage the knock-off lever and two detecting arms which, when the shuttle is present in either box at the moment of beating-up, are caused by the presence of the shuttle to hold the dagger out of position to engage the knock-off lever, but, when the shuttle is absent from each box, allow the rocking structure to rock (under the pressure of a spring acting thereon) to such a position that the dagger will engage and move the knock-off lever when the batten beats up and cause it to release the controller lever, which will then move to the position to stop the loom.

As the rocking structure is now made, the arms are secured on the shaft of said structure (to which shaft the dagger is welded, usually) by set-screws, the purpose being to allow rotative adjustment of the arms relatively to the dagger so as to insure the dagger being properly related to the knock-off lever (*i. e.*, fully to clear it so long as it is not called into action and squarely to engage it when it is called into action), not only in the initial assembling of the protecting mechanism with the loom but to compensate for changes occurring thereafter, as by wear of the parts, bending of the binders to change their pressure-effect, etc. By this arrangement, either the proper relation of the arms to the dagger becomes sooner or later disturbed by the slipping of the set-screws on the shaft or, if indentations for the set-screws are formed in the shaft to insure against slipping and the maintaining of the arms in a definite relation to the dagger, adjustment becomes no longer possible. In either case, the efficiency of the mechanism is limited.

My object is to provide a rocking-struc-

ture for a protecting mechanism of the character named which possesses the following characteristics, to wit: that when once adjusted, the arms and dagger will retain that relation to each other to which they are set, and that, should wear or other conditions require a readjustment, the relation of these parts may be changed as required with greater facility (to the end that the dagger will be positioned relatively to the knock-off lever) than in the old construction. So constructed, the protecting mechanism becomes at once more efficient and reliable than as heretofore constructed.

The accompanying drawings show the invention adapted to a box loom; it may obviously be adapted, however, to a plain loom.

In said drawings, Figure 1 shows in front elevation so much of the right side portion of a loom provided with my improved protecting mechanism as is necessary for the purpose of this description; Fig. 2 is a side elevation; Fig. 3 is a side elevation of the protecting mechanism on a larger scale, the knock-off lever and binder appearing in section; Fig. 4 is a fragmentary rear elevation of the rocking structure of said mechanism; Fig. 5 is a front elevation of the arm of said rocking structure; and, Fig. 6 is a front elevation of a certain collar.

At the front of the batten *a*, in suitable bearings *b*, is journaled the usual rock-shaft *c* carrying the dagger *d* coöperating with the knock-off lever *e* (having a V-shaped groove, as shown, to receive the pointed free end of the dagger) to effect the release of the controller lever *f* from the notch (not shown) of the slotted bracket *g* in which it moves whenever the arms (to be described) detect absence of a shuttle in both working shuttle-boxes of the loom, the dagger otherwise missing the knock-off lever in the beating-up movements of the batten.

The shuttle-boxes are indicated at *h*, the shuttles at *i* and the binders at *j*.

k is the usual spring to hold the rocking structure, comprising the dagger-carrying rock-shaft and the arms, against the binders of those boxes whose shuttles are in working relation to the lay or batten.

On shaft *c* is a collar *l* affording an upstanding projection *m* and having at the back a "flat" *n* flanked by two lips *o* and

formed at its lower edge with a stop *p*, the collar being secured to the shaft by the set-screw *q* which preferably engages in a notch *r* in the shaft to insure against slipping of the collar rotatively on the shaft. 5 Straddling the collar is the forked portion *s* of the arm *t*, said forked portion being penetrated by the shaft and having a web *u* opposite the extremity of projection *m*. The lips *o* and stop *p* of the collar secure in place 10 a plate-spring *v* which at its free or upper end bears against the back of the web *u* of the arm, pressing the latter forwardly around the shaft as an axis. The arm is bent off laterally so that its angular or "feeling" end *t'* may bear upon one of the binders *j*, as usual. In projection *m* is 15 tapped the set screw *w*, the same bearing against the web *u*; *x* is a lock-nut on the screw to hold the same fixedly when once adjusted. 20

It will be understood that complements of the parts *l* and *t* and their above-described accessories are provided on the shaft *c* in co- 25 operative relation to the boxes (not shown) at the left side of the loom.

It will be apparent that the nicest adjustment of the rocking structure as thus constructed (to the end that the dagger will 30 squarely engage or fully clear the knock-off lever as the circumstances require) may be effected with quickness and facility and that the parts may be so secured in the desired relation to each other that changes of such 35 relation, as by slippage, cannot occur. Re-adjustment, whenever required, as when wear occurs between the arms and binders, or the binders are bent by the weaver to change their pressure-action on the shuttles, 40 may obviously be accomplished to the same degree of nicety and with the same facility as the initial adjustment.

I have described my invention in connection with a box-loom; it is of course equally 45 as well adapted to a plain box.

Having thus fully described my inven-

tion, what I claim as new and desire to secure by Letters Patent is:—

1. A shuttle-controlled loom-controlling mechanism consisting of a rocking member 50 having a projection, an arm member arranged on, and rotative around the rocking axis of, said rocking member, a screw for varying the angular relation of the parts constituting the projection and arm mem- 55 ber and tapped into one and bearing against the other of said parts and means for maintaining the screw in contact with that one of said parts against which it bears, substantially as described. 60

2. A shuttle-controlled loom-controlling mechanism consisting of a rocking member having a projection, an arm member arranged on, and rotative around the rocking axis of, said rocking member, a screw for 65 varying the angular relation of the parts constituting the projection and arm member and tapped into one and bearing against the other of said parts, and a spring for maintaining the screw in contact with that 70 one of said parts against which it bears, substantially as described.

3. In a shuttle-controlled loom-controlling mechanism, a rocking structure comprising the dagger carrying rock-shaft, a 75 collar fixed on the shaft, and having a projection, a "feeling" arm rotatively arranged on the shaft, an adjusting screw for determining the angular relation of the arm and projection and tapped into one and 80 bearing against the other of them, and a spring tending to turn the arm relatively to the collar and carried by one and engaging the other of them, said spring holding the projection against the screw, substantially 85 as described.

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

HENRY TALKS.

Witnesses:

SAMUEL JOHNSON,
FRED WELCKER.