(No Model.)

R. B. GOODYEAR.

SHEDDING MECHANISM FOR LOOMS.

No. 255,850. Patented Apr. 4, 1882.

Fig. 1.

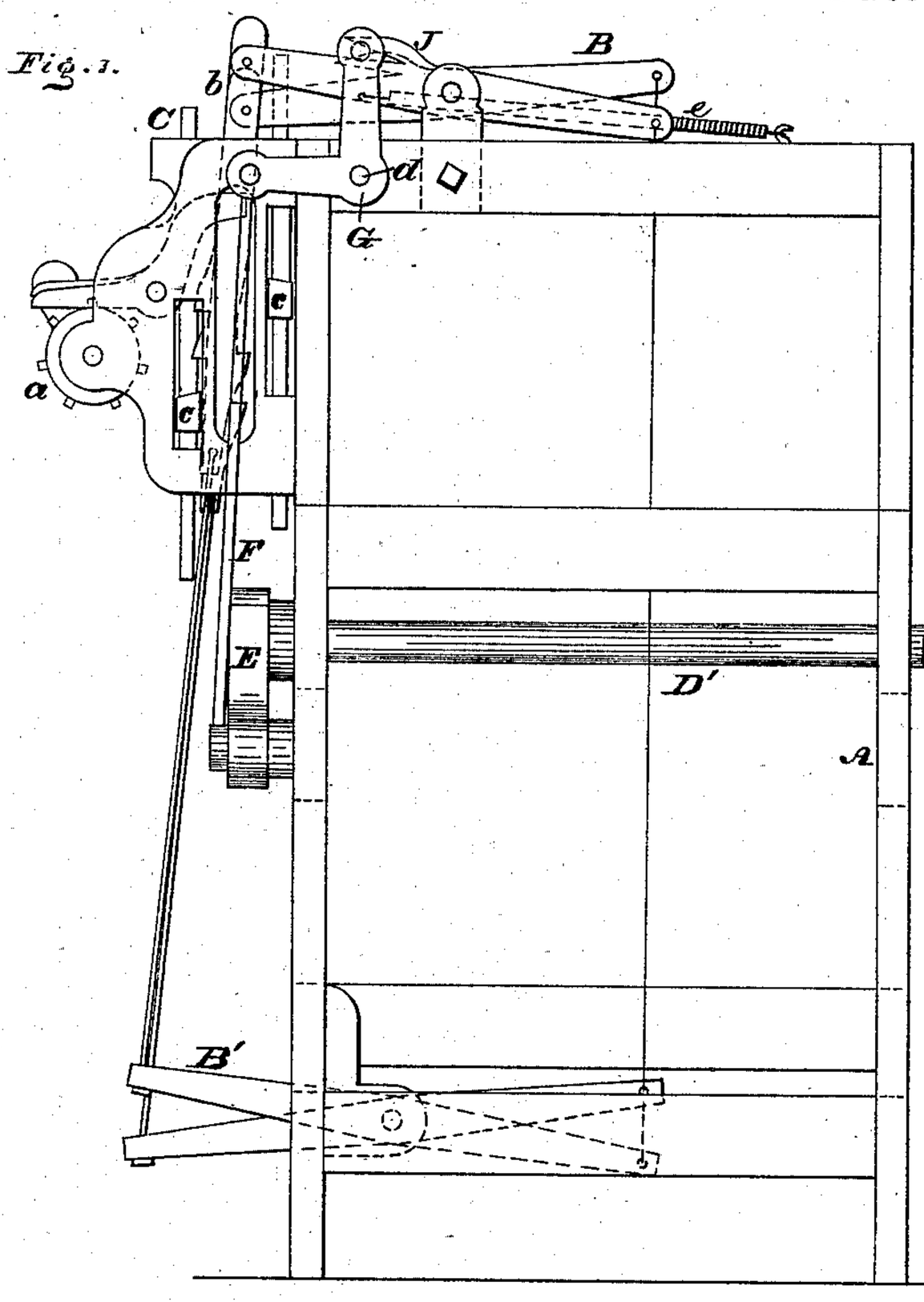


Fig. 2.

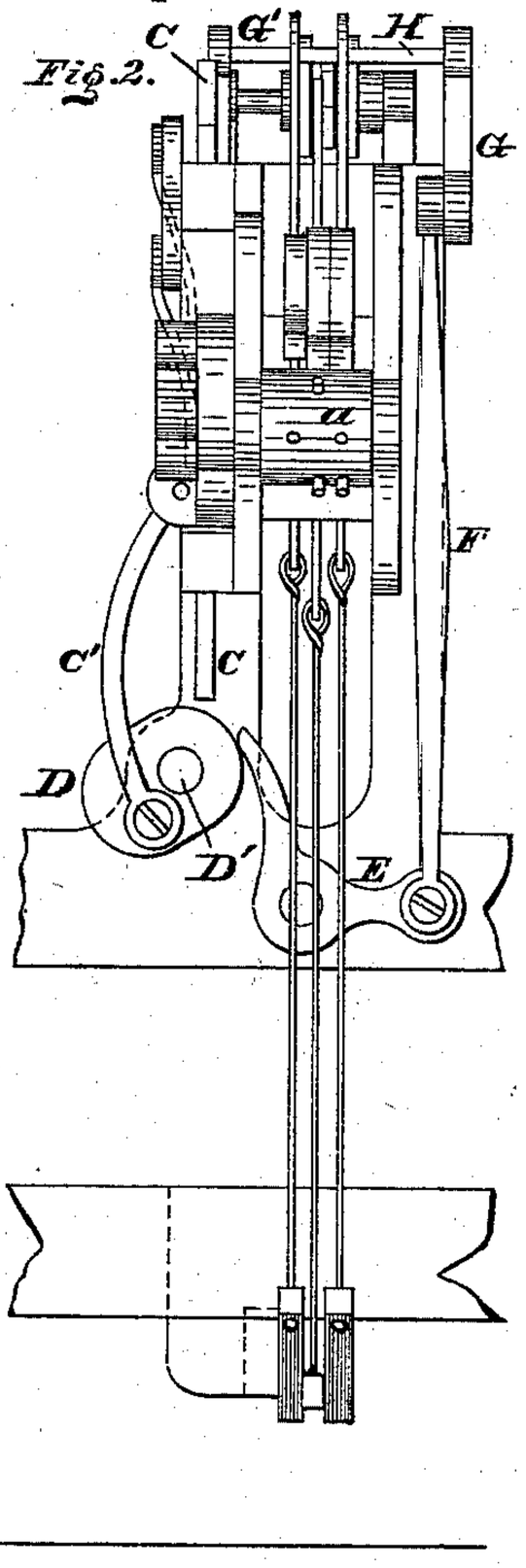


Fig. 3.

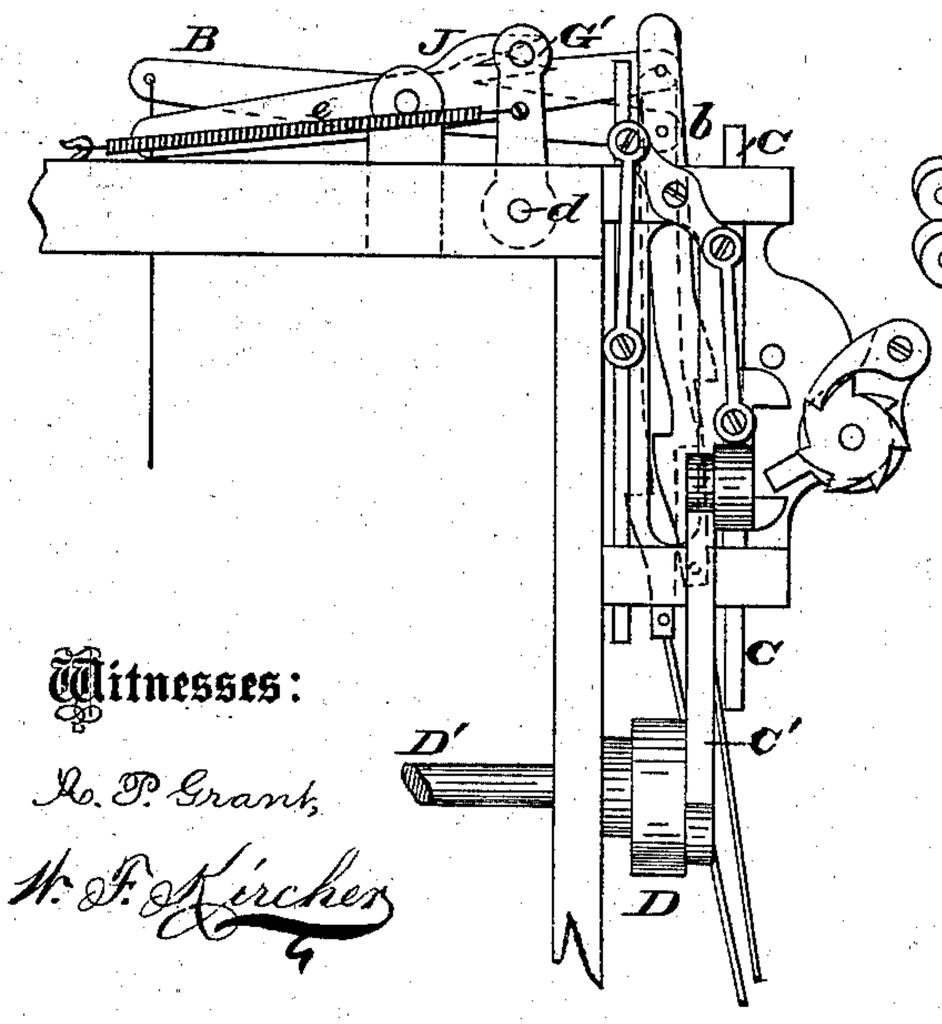
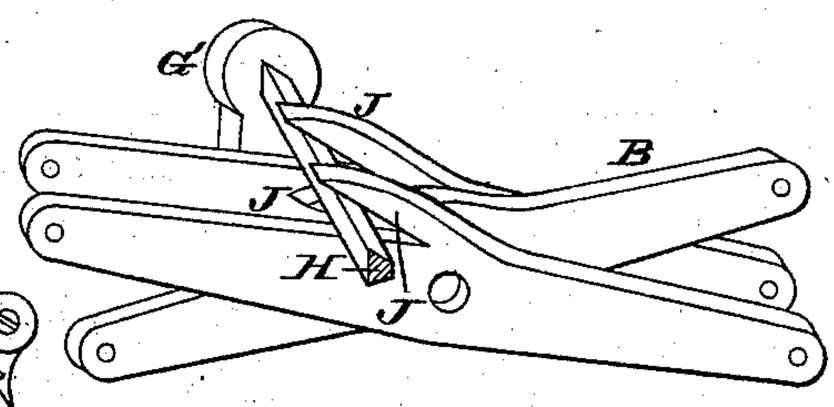


Fig. 4.



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SHEDDING MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 255,850, dated April 4, 1882.

Application filed July 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. GOODYEAR, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Shedding Mechanism for Looms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front elevation of portion of a loom having my invention applied thereto. Fig. 2 is an end view thereof. Fig. 3 is a view of a portion of the side opposite to that shown in Fig. 1. Fig. 4 is a perspective view of the levers of the harness-frame and lock therefor.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of means for locking the levers to which the harness-frames are attached, whereby said levers are caused to remain steady and are prevented from accidental shifting, each lever being locked simultaneously up and down, and thus prevented from movement in either direction.

Referring to the drawings, A represents the frame of a loom; B B′, the upper and lower levers coupled together, and having the harness-frame attached to them in suitable manner. I employ the well-known pattern wheel or chain *a*, notched jacks *b*, lifters and depressers *c*, and connected levers and parts for operating the levers B B′, there being nothing specially new therein, and no claim is laid thereto, it being evident that other means for operating the levers B B′ may be employed.

C represents a vertically-sliding rod or bar, to which power is first applied for operating the pattern-wheel, lifters, &c., said rod or bar having connected to it a rod, C′, which is also attached to a crank-pin upon a cam, D, the latter being keyed or otherwise fixed to the driving-shaft D′ of the loom.

To the side of the loom is hinged an elbow-lever E, one limb of which is in contact with the cam D, and its other end has pivoted to it an upright rod, F, whose upper end is connected to an elbow-lever, G, the pivotal shaft *d* of which is mounted on the upper portion of the frame A adjacent to the levers B B, and is provided with an arm G′, which coincides with the vertical limb of said elbow-lever G, the two arms G G′ being connected at their upper ends by a cross-bar or locking-bar, H, and swinging as one, said bar H being so disposed that it overhangs the upper levers, B.

On the upper side of each lever B, near its pivotal connection with the frame, is a nose, J, which may be secured to or formed with the lever, and its end projects in the direction toward the bar H, the relative arrangement of the several noses J and bar H being such that the bar may either pass under or over the several noses, as will be hereinafter stated.

When the shaft D′ is rotated the parts which operate the levers B B′ are operated, as well known. The cam D on the shaft D′ is also rotated, and a swinging motion is imparted to the elbow-lever E, falling motion to the rod F, swinging motions to the elbow-lever G and arm G′, and swinging motion to the bar H from the noses J of the levers B, these motions being positive; but the advance motion of the bar is accomplished by the action of the spring *e*, which is connected to the frame of the loom and the arm G′.

When the bar H advances it presses against the under edges of the noses that are elevated with their respective levers and prevents the descent of said levers, and also presses against the upper edges of the noses that are lowered with their respective levers and prevents the ascent of said levers. In either case the levers are held steady, and accidental movement thereof is prevented. The bar H then returns and clears the noses, after which the levers B are shifted and the bar again advances in order to lock with the noses that are up or down, or partly up or down, as before stated.

It will be seen that the spring *e* not only advances the bar H toward and against the noses J, but holds it firmly against the same. Should, from any accident to the pins of the pattern wheel or chain, the levers which rest on said pins, the jacks *b*, lifters and depressers *c*, and lever G be so disposed or displaced that

the bar H in advancing strikes the front ends or points of the noses J, the bar will remain in contact with the said points without injuring or fracturing the noses, since, as has been stated, the bar is drawn in or advanced by the spring, which exerts a yielding pressure, and is not forced against said noses by any positive pressure. At the proper time the bar is again carried back from the noses, and the levers may right themselves, and the proper operation then continues.

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

1. The combination, with the levers B, having noses J and mechanism for operating them, a locking-bar transversely arranged to said lever, and mechanism for positively returning said bar from the noses, of a spring for advancing said bar, substantially as and for the purpose set forth.

2. The combination of harness-levers B, having noses J, with locking-bar H, bell-crank lever G, shaft *d*, arm G′, spring *e*, driving-shaft D′, cam D, bell-crank lever E, and connecting-rod F, substantially as set forth.

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