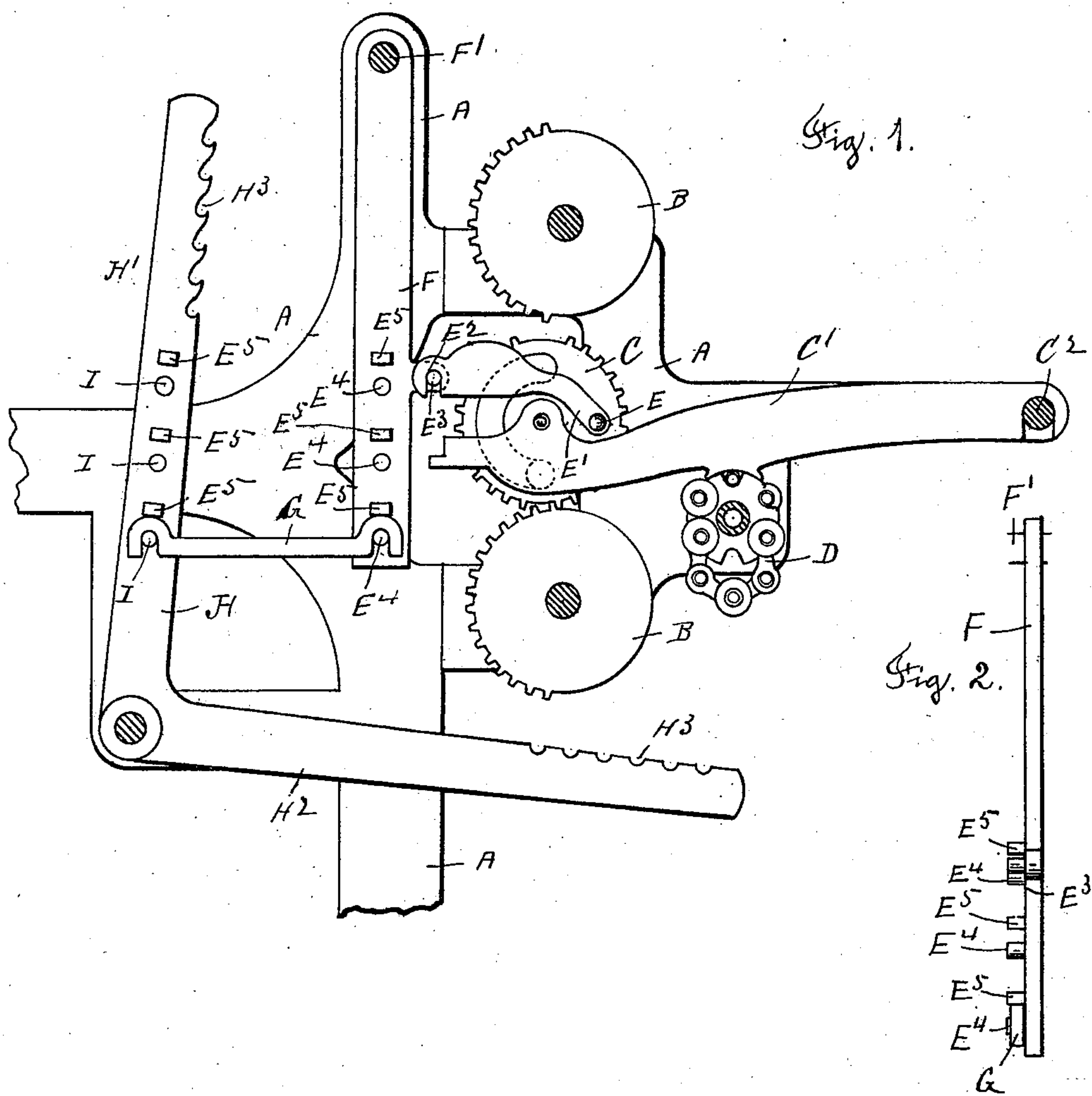


(No Model.)

J. F. WICKS & B. S. ROY.
SHEDDING MECHANISM FOR LOOMS.

No. 563,346.

Patented July 7, 1896.



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JOSEPH F. WICKS AND BOZIL S. ROY, OF WORCESTER, MASSACHUSETTS.

SHEDDING MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 563,346, dated July 7, 1896.

Application filed July 7, 1894. Serial No. 516,840. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH F. WICKS and BOZIL S. ROY, citizens of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in a Shedding Mechanism for Looms, of which the following is a specification, accompanied by drawings representing that portion of a loom which embodies our invention, and in which—

Figure 1 represents a side elevation of that part of the framework which supports the shedding mechanism, the frame next the beholder having been removed. Fig. 2 represents an edge view of one of the intermediate swinging levers.

Similar letters refer to similar parts in both figures.

In the drawings, A denotes the framework, and B B two barrel-gears journaled in the framework and having gear-teeth upon a portion of their periphery, said barrel-gears being arranged one above and the other below a gear C, carried by the free end of a lever C', pivoted at one end upon a rod C², held by the frame A, so the angular motion of the lever C' will carry the gear C up or down and bring its teeth into engagement with the teeth upon either the upper or lower of the barrel-gears B B, the lever C' being actuated by a pattern-chain D in the usual manner. The barrel-gears B B rotate in opposite directions and the gear-wheel C will be rotated one-half a revolution in one direction or the other as it is engaged by the upper or lower of the barrel-gears B B. The above-described mechanism is now in common use and its construction and operation will be understood by those conversant with the art of weaving.

The gear C carries a crank-pin E, to which a link E' is pivoted, having its opposite end provided with a hook E², adapted to engage a stud E³, projecting from the side of a swinging lever F, pivoted upon a rod F', held in the frame A, so the rotation of the gear C back and forth through a half-revolution will impart an angular movement to the lever F. The lever F is connected by a link G with a pivoted jack H, having arms H' and H², pro-

vided with notches H³ H³, to which the harness-straps are attached. A short distance above the studs E⁴ on the swinging lever F and the studs I on the jack H are projecting lugs which extend over the hooked ends of the connecting-links, so as to prevent them from being lifted and disengaged from the studs during the operation of the loom. The lever F and arm H' of the jack are provided with a series of studs E⁴ and I in order to allow the hooked link G to be shifted from one to the other of the studs to vary the extent of the angular motion of the jack, so as to vary the motion of the harness-frames and produce what is known as an "angular shed" in the warp.

We have described the arrangement of a single lever, a rotating gear with a single jack, and intermediate lever F, which comprise the actuating mechanism for a single harness-frame, the several parts being duplicated for each harness-frame contained in the loom.

It has been customary heretofore to actuate the jacks directly from the rotating crank-wheels C without the use of an intermediate lever F and with no provision to prevent the hooked ends of the links from being lifted and disengaged from the studs.

What we claim as our invention, and desire to secure by Letters Patent, is—

In a loom, the combination of a pivoted jack provided with a series of projecting studs and adapted to be connected with the harness-frames of the loom, a lever pivoted at one end to the frame of the loom and provided with a series of projecting studs, a detachable link connecting said lever and said jack, and actuating mechanism connected with said lever, whereby a vibrating motion is imparted to said lever and whereby the vibrating motion of said jack is varied relatively to said lever, substantially as described.

Dated this 24th day of June, 1894.

JOSEPH F. WICKS.
BOZIL S. ROY.

Witnesses:

RUFUS B. FOWLER,
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