

(No Model.)

G. W. PROUTY.
PRINTING MACHINE.

No. 339,210.

Patented Apr. 6, 1886.

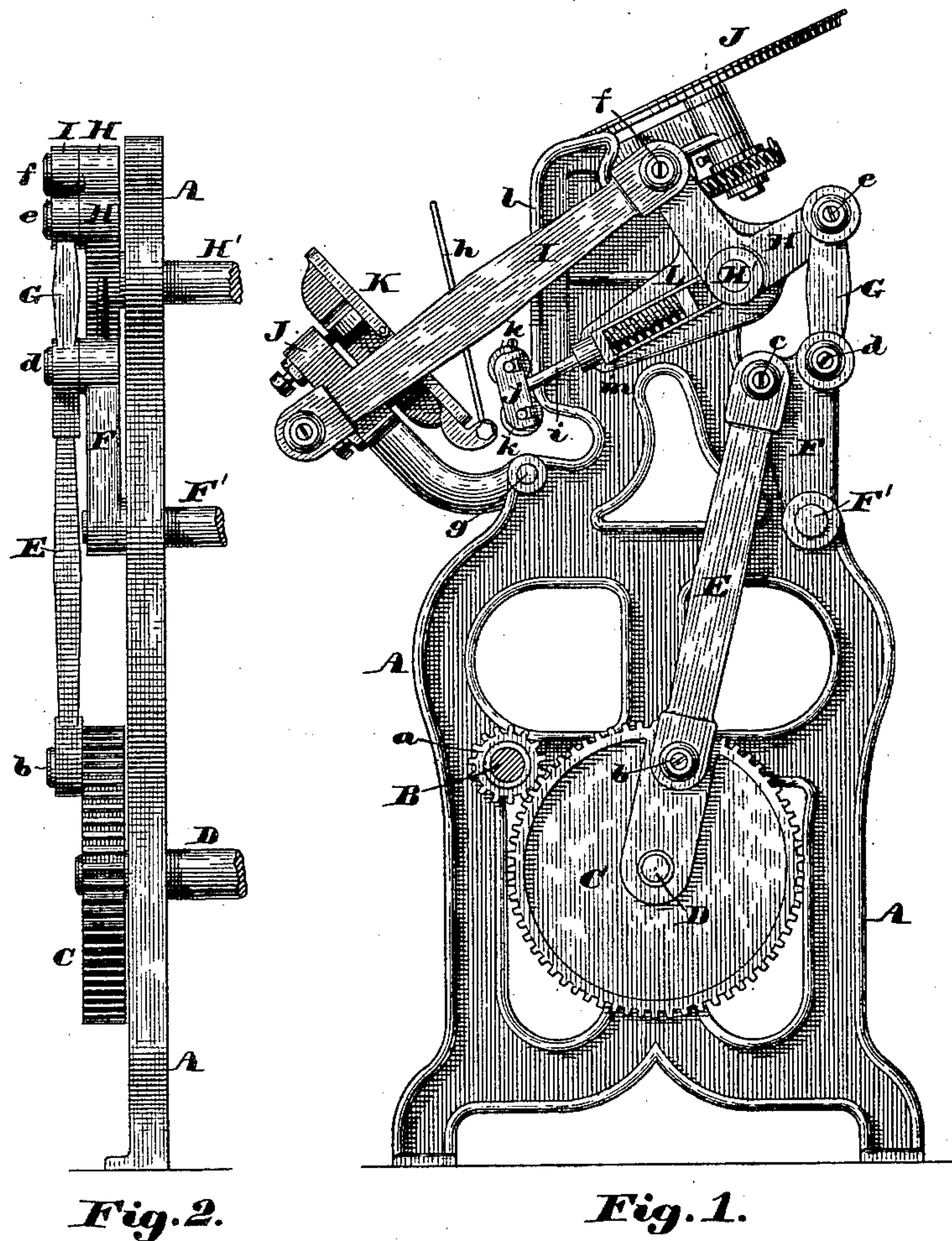


Fig. 2.

Fig. 1.

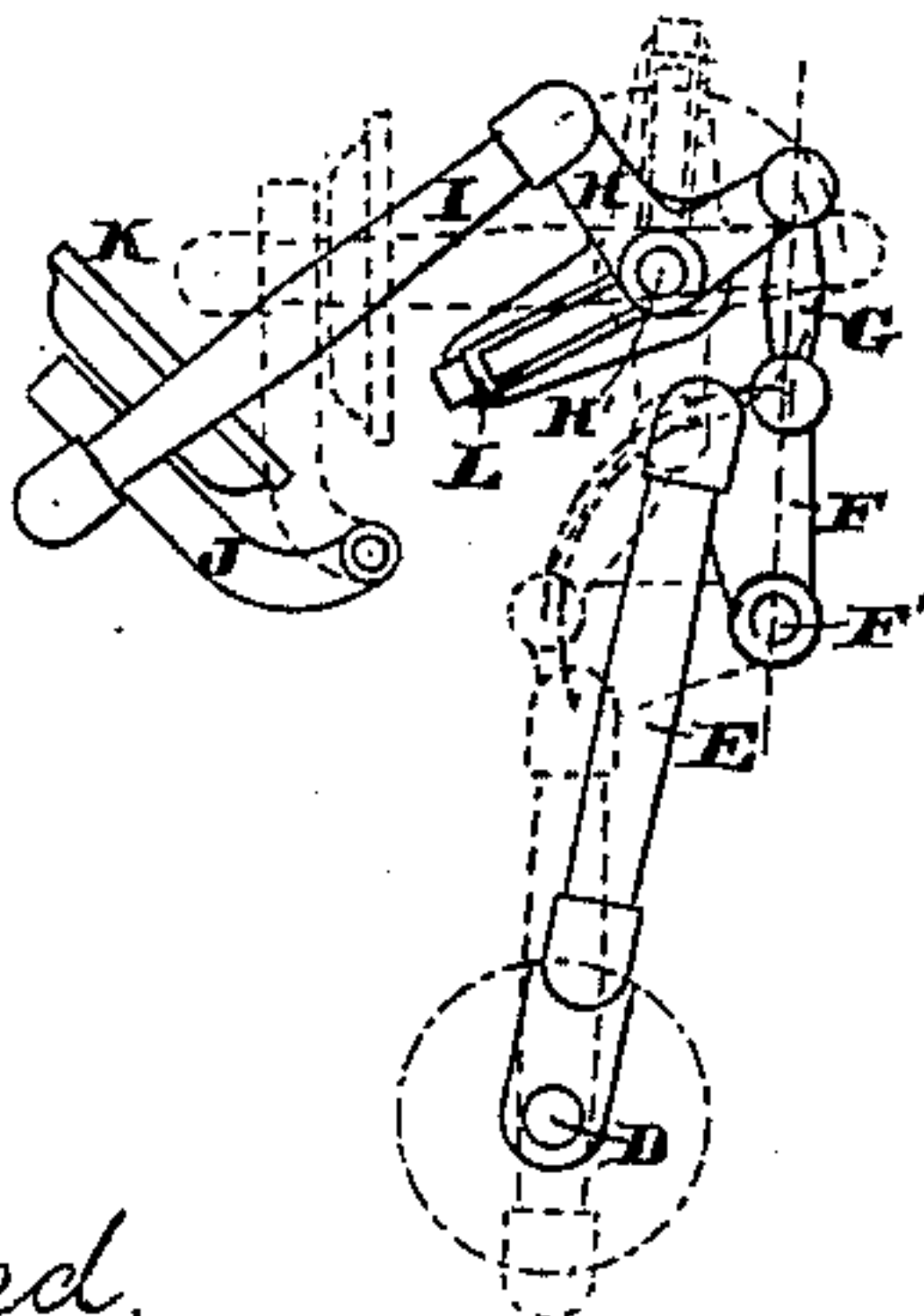


Fig. 3.

Witnesses:
Walter E. Lombard.
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UNITED STATES PATENT OFFICE.

GEORGE W. PROUTY, OF BOSTON, MASSACHUSETTS.

PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 339,210, dated April 6, 1886

Application filed May 4, 1885. Serial No. 164,353. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PROUTY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Printing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the mechanism for operating the platen and inking-rolls of a printing-press, and especially to the means employed to obtain a "dwell" or "stand-still" of the platen when farthest removed from the face of the type on the bed, and is an improvement upon the press described in Letters Patent No. 245,014, granted to me August 2, 1881.

My invention consists in the combination, with the bed and platen of a printing-press, and a rotary crank-shaft, of a system of levers, links, and connecting-rods arranged in a novel manner, which will be best understood by reference to the description of the drawings and to the claims to be hereinafter given.

In the drawings, Figure 1 is a side elevation of a printing-press embodying my invention. Fig. 2 is a rear elevation of one side frame and the train of mechanism upon that side of the machine for operating the platen and inking-rolls; and Fig. 3 is a diagram, to be hereinafter referred to.

A is one of the two side frames of the press, which frames are connected together by the type-bed and suitable tie-girts. (Not shown.)

B is the driving-shaft, mounted in bearings in each of the side frames A, and designed to have a fly-wheel secured thereto, and may be driven by a crank-and-treadle connection thereto, or by a suitable driving pulley and belt.

To the driving-shaft B is secured the spur-pinion *a*, which engages with and imparts motion to the spur gear-wheel C, secured upon the shaft D, which also has its bearings in each of the side frames A.

To a crank-pin, *b*, set in the gear-wheel C, is connected one end of the pitman E, the opposite end of which is pivoted at *c* to the lever F, mounted upon the shaft F', or upon a stud projecting from the frame A.

To the lever F is pivoted at *d* one end of the link G, the opposite end of which is pivoted at *e* to one arm of the elbow-lever H, to the

other arm of which is pivoted at *f* one end of the draw-bar I, the opposite end of which is pivoted to the platen-yoke J, which in turn is pivoted by its two arms to the frames A at *g*.

K is the platen, secured to the yoke J by suitable adjusting-screws, and *h* are the nippers mounted thereon.

L is a slotted arm or lever, which may be formed in one piece with the elbow-lever H, or secured to the shaft H' independently thereof, as may be desired. This arm L has mounted in suitable bearings therein the sliding rod *i*, to the outer end of which is pivoted the saddle *j*, in which the inking-rolls *k k* have their bearings, said rolls being guided while passing over the type-form by the bearers or guideways *l*, formed upon the frames A. A spring, *m*, surrounds the rod *i* in the slot of the arm L and serves to press the inking-rolls upon the type-form and the ink-distributing table J in a well-known manner.

The shafts F' and H' extend across the machine, and have bearings in each of the frames A, and have mounted upon their opposite ends duplicates, respectively, of the levers F and H and L, which are in turn connected, respectively, to a crank on the shaft D, to the platen, and to the inking-rolls by means of a duplicate pitman, draw-bar, and sliding rod and saddle, precisely in the same manner as shown in Fig. 1.

It will be observed by reference to Fig. 3 that at the time when the impression is being given the lower end of the pitman E and its crank-pin are just passing the lower dead-center of the crank, and at the same time the rear end of the draw-bar I and its wrist-pin *j* are just approaching the dead-center, as indicated in the position of the several parts shown in dotted lines. It will also be observed that by virtue of the peculiar arrangement of the several parts and the relative positions of the several pivotal connections thereof, and the fact that the lower end of the link G and its wrist-pin *d* is carried some little distance beyond or to the rear of the dead-center, as indicated by the positions shown in full lines in Fig. 3, a substantial stand-still or dwell of the platen is obtained when in its lowest position, without any of the objectionable features pertaining to the toothed segments of the invention described in the before-cited Letters Pat-

ent—such, for instance, as the “back-lash,”
so called, of the segments, and a certain
jumping action, which sometimes takes place
when the segments are disconnected from each
5 other by the disengagement of their teeth.

What I claim as new, and desire to secure
by Letters Patent of the United States, is—

1. In combination with the platen and bed
of a printing-press, an arm or lever provided
10 in its movable end with two wrist-pins, a pit-
man connecting one of said wrist-pins with
the operating crank-pin by a closely-fitting
bearing, an elbow-lever provided with a
wrist-pin in the movable end of each arm, a
15 link connecting one of said wrist-pins with
the second wrist-pin in the first-mentioned arm
or lever, and a draw-bar connecting the wrist-
pin in the other arm of the elbow-lever with
the platen-yoke, substantially as described.

2. In combination with the platen and type- 20
bed of a printing-press, the shaft D, crank-
pin *b*, the pitman E, the arm or lever F, pro-
vided with the wrist-pins *c* and *d*, the link G,
the levers H L, the draw-bar I, all connected
together by positive and unyielding connec- 25
tions, and the saddle *j*, connected to the lever
L by a yielding connection, all arranged and
adapted to operate substantially as and for
the purposes described.

In testimony whereof I have signed my name 30
to this specification, in the presence of two
subscribing witnesses, on this 30th day of
April, A. D. 1885.

GEORGE W. PROUTY.

Witnesses:

WALTER E. LOMBARD,
FRANK E. BRAY.