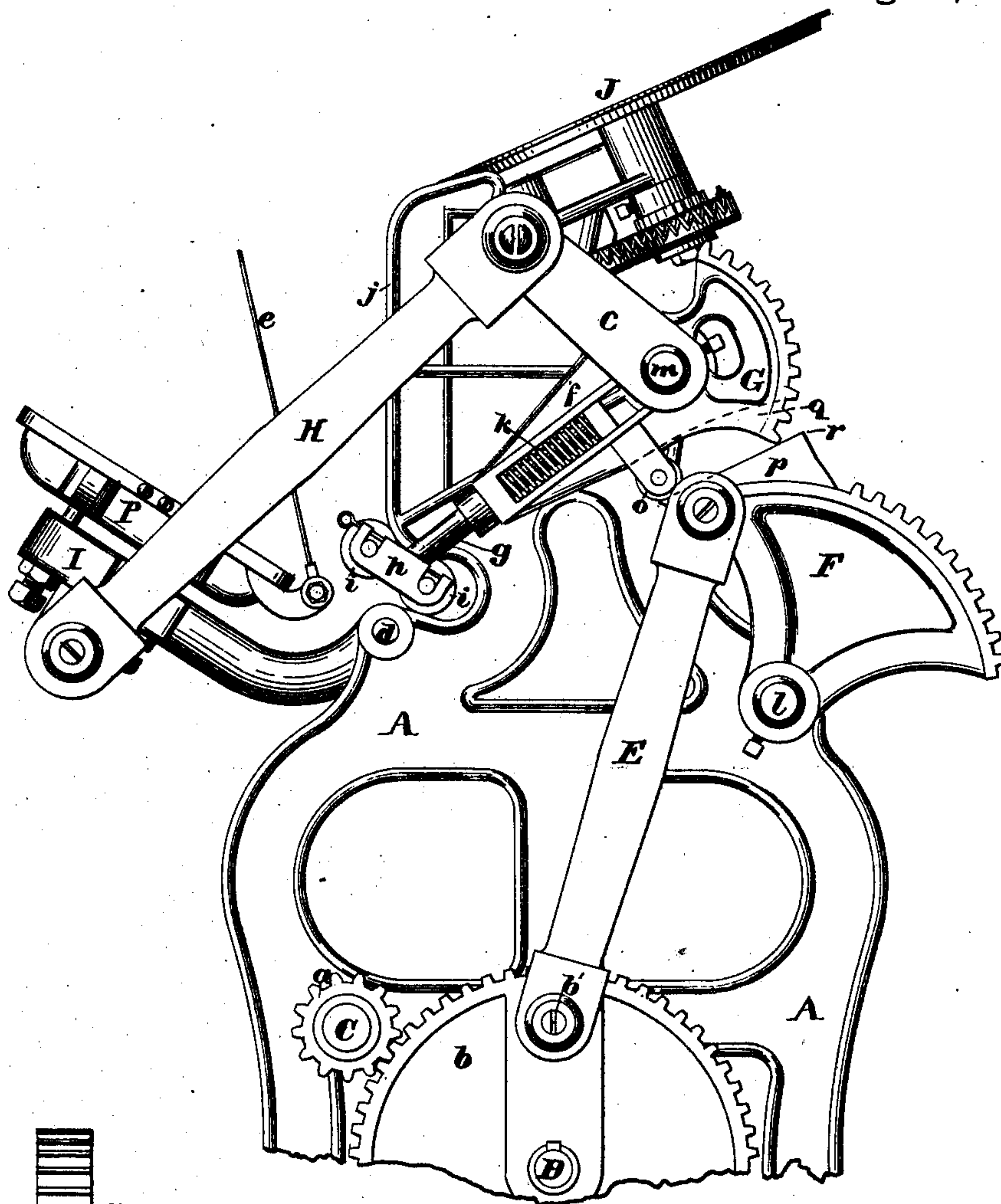


(No Model.)

G. W. PROUTY.  
PRINTING PRESS.

No. 245,014.

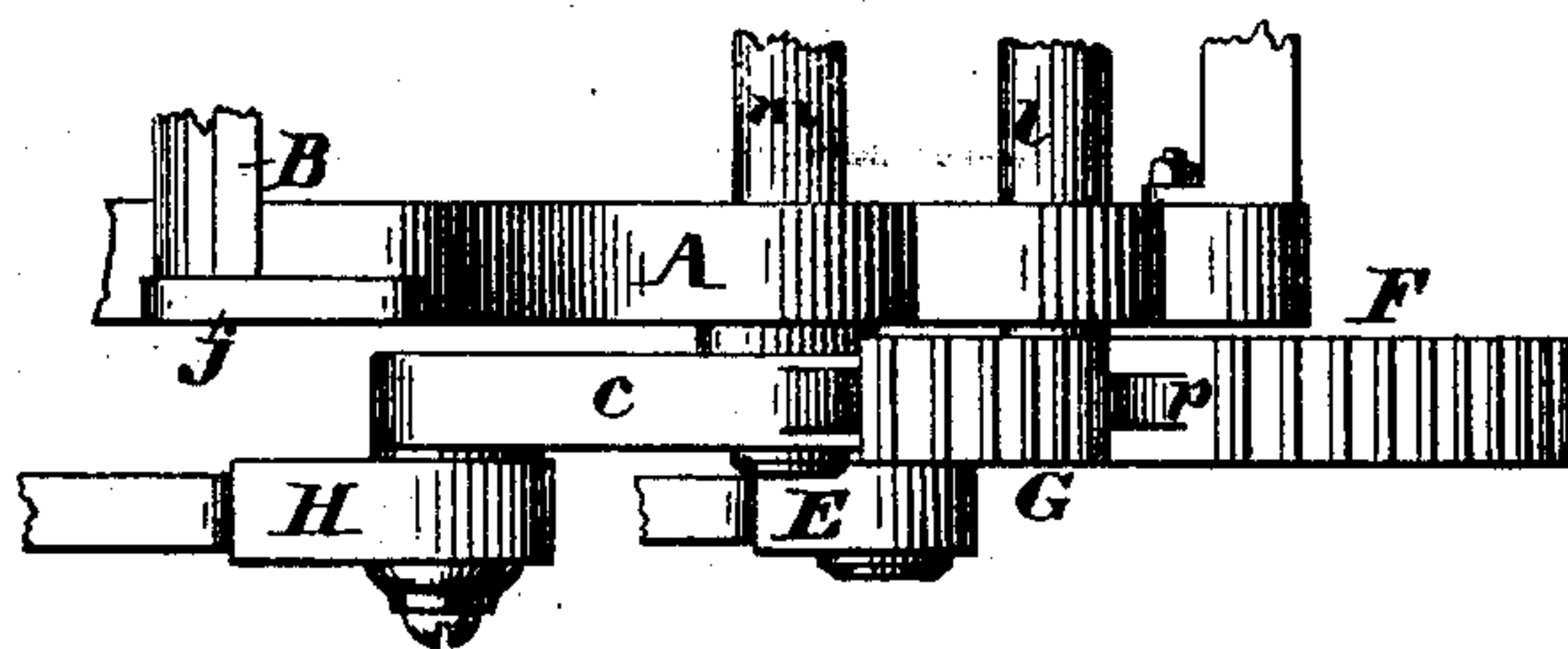
Patented Aug. 2, 1881.



**Fig.1.**



**Fig. 3.**



*Fig. 2.*

**Witnesses:**

Walter C. Lombard.  
E. E. Chandler.

***Inventor:***

George W. Prouty  
by N. C. Lombard  
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# UNITED STATES PATENT OFFICE.

GEORGE W. PROUTY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE  
PROUTY PRESS COMPANY, OF HARTFORD, CONNECTICUT.

## PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 245,014, dated August 2, 1881.

Application filed February 21, 1881. (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-Presses, 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. 216,890, granted to me June 24, 1879. It consists in the combination, with the platen and bed of a printing-press, of a segment of a gear provided with an anti-friction roll, a draw-bar connecting said segment and the platen, a second or driving segment provided with teeth to engage with the teeth of the first-mentioned segment, and a wedge or cam surface which engages with the anti-friction roll on the first segment, and a rod or pitman connecting said driving-segment to the operating-crank, all so arranged that the driving-segment shall move through a greater arc than the first segment, the wedge or cam surface of the driving-segment acting upon the anti-friction roll of the first segment to hold said segment and consequently the platen stationary, or substantially so, after the disengagement of the teeth of the segments until said teeth are brought into re-engagement by the reverse motion of said driving-segment.

Figure 1 of the drawings is a side elevation of the greater portion of a printing-press, sufficient being shown to illustrate my present invention. Fig. 2 is a partial plan, showing the gear-segments for operating the platen and inking-rolls and parts immediately connected with said segments, and Fig. 3 is an edge view of the above-mentioned segments.

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

C 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 connected therewith or by a suitable driving pulley and belt.

To the driving-shaft C is secured the spur-pinion *a*, which engages with and imparts motion to the spur-gear wheel *b*, 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 *b*, is connected one end of the pitman E, the opposite end of which is connected to the toothed segment F, and imparts a vibratory motion thereto, caused by the revolution of the gear-wheel *b*. The segment F imparts a similar vibratory motion to the segment G by the teeth of said segments coming into contact at the proper times, as will be more fully described.

The segment G is provided with a radially-projecting arm, *c*, connected by a wrist-pin fixed in its outer end to one end of the draw-bar H, the other end of which is connected to the platen-yoke I, provided with two arms, by which it is pivoted at *d* to each of the side-frames A.

P is the platen, secured to the yoke I by suitable adjusting-screws, and *e* are the nippers mounted thereon.

The segment G is also provided with a slotted arm, *f*, in which is mounted the sliding rod *g*, carrying pivoted to its outer end the saddle *h*, in which the inking-rollers *i i* have their bearing, said rollers being guided while passing over the type-form by the bearers or guide-ways *j* formed on the side frames, A. A spring, *k*, surrounds the rod *g* in the slot of the arm *f*, and serves to press the inking-rollers upon the type-form and the ink-distributing table J.

Similar mechanism to that above described for operating the platen and inking-rollers is attached to the opposite side of the press from that shown in the drawings, the segments F and G being secured, respectively, upon shafts *l* and *m* which extend across the machine, having bearings in each of the frames A, and have mounted upon their opposite ends duplicate segments connected to the inking-rollers and by a duplicate draw-bar to the platen-yoke I, the segment upon the shaft *l* being connected by a pitman similar to the pitman



E to a crank secured upon the opposite end of the shaft D, the length of said crank being equal to the distance from the center of the shaft D to the center of the crank-pin *b'* set in the gear-wheel *b*.

The mechanism thus far described is similar to that shown in my previous patent, before cited. I will now describe that which constitutes my present invention, the object of which is to produce a dwell or stand-still of the platen when farthest removed from the face of the type, in order to allow the operator a longer time to remove the printed sheet from the face of the platen and place a fresh blank thereon at the same time that the shaft D continues to revolve at a uniform rate of speed.

In a suitable slotted projection of the segment G is mounted an anti-friction roll, *o*, which comes in contact at the proper times and bears upon the cam surface or edge of the wedge-like projection *p* formed on the segment F, a slot, *q*, being cut through the end of the segment G, as shown in Fig. 3, and indicated by a dotted line in Fig. 1, to prevent the projection *p* from interfering with the proper movement of the segment G. The two segments F and G are arranged to move together during a portion of the time, or while the teeth of said segments are in contact, but as the platen recedes from the face of the type and approaches nearly to the position shown in the drawings the teeth of the two segments F and G disengage and at the same time the anti-friction roll *o* on the segment G comes into contact with the cam-surface on the projection *p* of the segment F, said cam-surface being so shaped that the segment G, and consequently the platen P, shall be gradually brought to a stand-still and remain so during the continued movement of the segment F, or until after said segment has begun its reverse motion. As the segment F moves in the reverse direction the projection *p*, acting gradually upon the roll *o*, imparts motion to the segment G, thereby causing the inking-rollers *i i* to move upward and the platen P to advance toward the face of the type, and when the roll *o* reaches the point *r* on the projection *p* the teeth of the segments re-engage to complete the upward movement of the inking-rollers and bring the platen into position to give the impression. As the roll *o*,

during its movement in contact with the projection *p*, approaches the point *r* of said projection the motion of the segment G is gradually accelerated, so that by the time the roll *o* has reached the point *r* said segment will be moving with a speed equal to that at which it moves when the teeth of the two segments are in contact, thus allowing said teeth to engage without shock to the parts or jarring of the machine; and the cam-surface on the projection *p* should be so shaped as to gradually arrest the motion of the segment G and as gradually start it in the reverse direction, thus causing the parts to work with perfect smoothness.

The mechanism as above described is designed to be made in duplicate and located upon each side of the machine, the segments upon the opposite side of the machine from that shown in the drawings being provided with an anti-friction roll and cam-shaped projection precisely similar and operating in unison with the roll *o* and projection *p* previously described.

I do not claim, broadly, in this application the segment F, provided with the wedge-like projection *p*, in combination with the segment G, provided with the anti-friction roll *o*, as this forms the subject-matter of the claim for a new mechanical movement contained in another application filed in the Patent-Office as division of this case.

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

In combination with the platen and bed of a printing-press, an operating-crank, a toothed segment provided with a wedge or cam-shaped projection, a suitable pitman connecting said segment to the operating-crank, a second toothed segment provided with a radial arm carrying a wrist-pin and with an anti-friction roll adapted to engage at proper times with said wedge or cam-shaped projection, and a draw-bar connecting said wrist-pin with the platen, all arranged and adapted to operate substantially as and for the purposes described.

Executed at Boston, Massachusetts, this 18th day of February, A. D. 1881.

GEO. W. PROUTY.

Witnesses:

E. A. HEMMENWAY,  
E. E. CHANDLER.