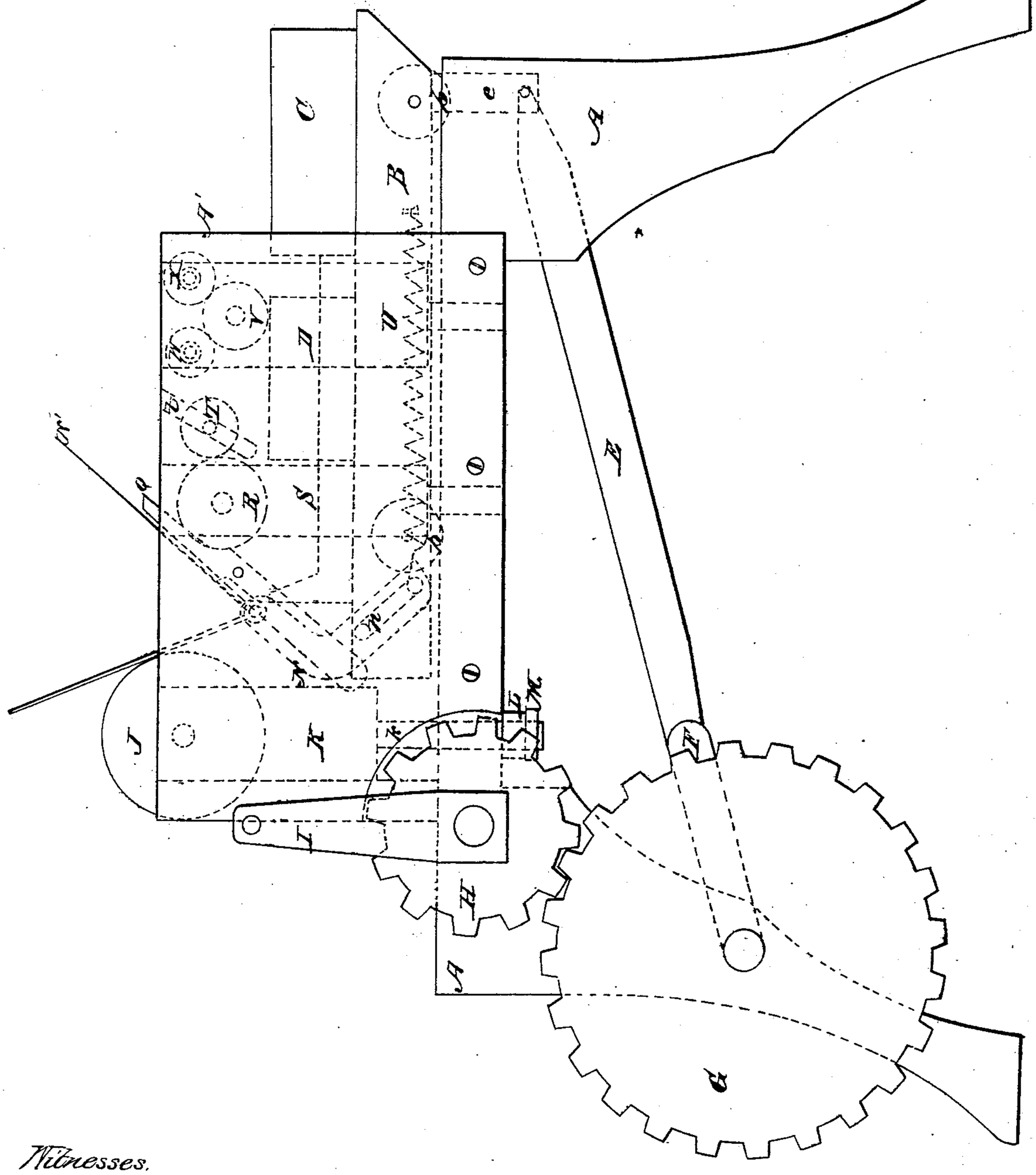
H Goodrich.

Printing Press.

No. 2383.
33.387

Patented Oct. 1. 1861.



Witnesses.

N. Ames.

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UNITED STATES PATENT OFFICE.

HORACE GOODRICH, OF STONEHAM, MASSACHUSETTS.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **33,387,** dated October 1, 1861.

To all whom it may concern:

Be it known that I, HORACE GOODRICH, of Stoneham, in the county of Middlesex and Commonwealth of Massachusetts, have invented a new and useful Improvement in Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, forming a part of this specification.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

The drawing is a side elevation.

A is the stationary frame, of cast-iron or other suitable material, and A′ is a continuation attached to A by means of bolts or screws.

B is the reciprocating type and distributer bed, of cast-iron and running on four wheels *b*, two on each side, in suitable ways or grooves on the top of the horizontal part of the stationary frame.

C is the flat distributer, of marble, iron, or other suitable material, fast to the top of the reciprocating bed B.

D represents a form of type in a chase confined in place in the usual manner by means of wedges or screws and cleats on top of the bed B.

H is a pinion, which may be actuated by foot or other power or driven by hand by means of the crank I.

G is a larger pinion engaging with H and fast to the crank-shaft F.

E is a pitman connecting the crank-shaft F with the start *e* at the bottom of the bed B, by means of which the latter is made to reciprocate. The bed B is kept from rising by means of a rod (not shown in the drawing) which, passing through the start *e* in a slot in the frame A, is fastened at both extremities.

J is the impression-cylinder, whose axle turns in the vertical slides K, said slides being kept in place by means of cleats on the inner side of the frame A′.

k is a round extension of the slides K passing through the bottom of the frame and furnished with a screw and nut M.

L is an india-rubber or metallic spring between nut M and the frame, by means of which nut and spring it is obvious that more or less pressure may be given to the impression-cylinder J at pleasure.

N N′ are the frisket-frame, which vibrates on a fulcrum *n*, the center of which is bent down and attached to one extremity of the spiral spring O, the other extremity of said spring being fast to the bottom of the bed B. The action of this spring O is to throw up the frisket into the position shown in the drawing, it (the frisket) being gradually depressed into a horizontal position in passing under the impression-cylinder J.

Q are cleats attached to the inner sides of the frame A′ at the inclination represented in the drawing and confined by means of a screw *x* and a pin or pivot at the lower end. The design of said cleats is to prevent the frisket-frame (the projecting upper corners of which bear on the cleats) from being forced down upon the inking-roller R, and also to assist the spring O in raising the frisket and platen.

P is the platen on which the card or paper to be printed is laid, and is made of pasteboard covered with rubber cloth or other suitable material. The lower edge of this platen is hinged to the frisket-frame at P, as represented in the drawing.

R is the inking-roller, whose axle turns in bearings in the vertical slides S, said slides being guided by means of cleats on or slots in the frame A′.

T is a small distributing-roller bearing upon R and running on its axis in the slots *t*.

U are two other vertical slides similar to S.

V is a large distributing-cylinder, the ends of whose axis turn in bearings in the vertical slides U. The bottom of this cylinder rolls on the distributer C.

W and X are two smaller distributing-cylinders rolling on V, their axes turning in oblong slots in the vertical slides U.

The card or paper to be printed being placed upon the platen P (which, as represented in the drawing, is in a very favorable and convenient position for "feeding" it on) and the pinion H being rotated, it is obvious that the cylinder V will pass over the distributer C and the inking-roller R will pass over the type-surface and then over the distributer, while at the same time the platen P is brought down onto the frisket N′, and both

of them are carried under the cylinder J, and the paper or card being twice passed over by the cylinder J is pressed sufficiently hard upon the printing-surface to give the impression, and by continuing to turn the pinion H the type-surface and distributer will pass under the cylinders R and V, the frisket will be gradually raised from a horizontal position, and the platen with the printed card or paper on it will be thrown up onto the cylinder J, as shown in the figure.

The machine is simple, cheap, easily kept in working order, and requires but little power to operate it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The spring-frisket N N′, provided with the hinged platen P and attached to the end of the reciprocating bed B and operating in combination with the impression-cylinder J and cleats Q, substantially as described, and for the objects specified.

2. Hanging the impression-clyinder J in the adjustable spring-slides K, substantially as and for the object specified.

3. The side cleats Q, arranged and operating substantially as set forth, and for the object described.

HORACE GOODRICH.

Witnesses:
N. AMES,
A. B. DAVIS.