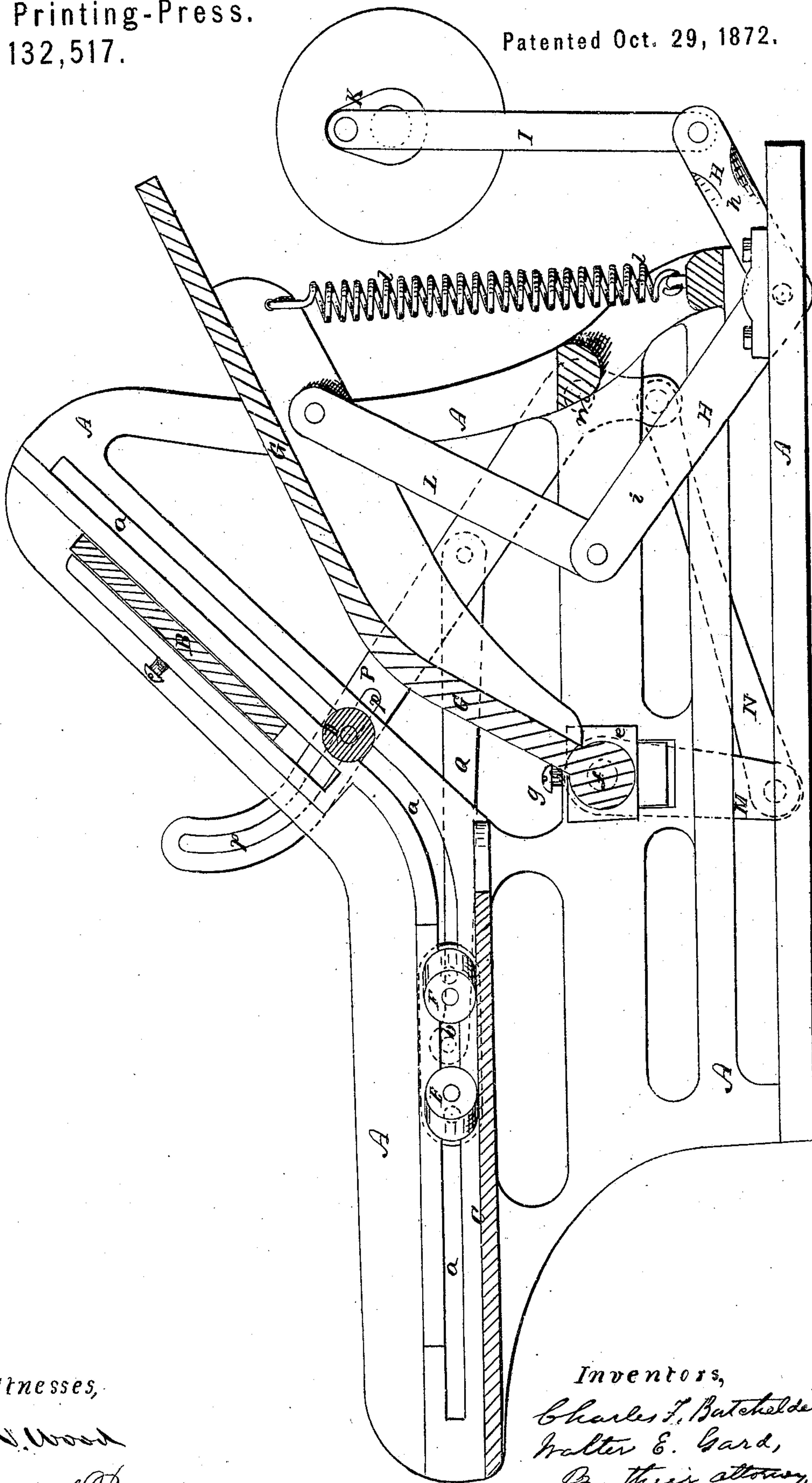


C. F. BATCHELDER & W. E. GARD.  
 Printing-Press.  
 No. 132,517.

Patented Oct. 29, 1872.



Witnesses,  
 S. W. Wood  
 Daniel Breed

Inventors,  
 Charles F. Batchelder,  
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 By their attorney,  
 J. S. Brown.



# UNITED STATES PATENT OFFICE.

CHARLES F. BATCHELDER AND WALTER E. GARD, OF CHICAGO, ILLINOIS;  
SAID BATCHELDER ASSIGNOR TO EMERY R. GARD, OF SAME PLACE.

## IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. 132,517, dated October 29, 1872.

*To all whom it may concern:*

Be it known that we, CHARLES F. BATCHELDER and WALTER E. GARD, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Printing-Press; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification, and representing a vertical section thereof.

Our improved printing press is adapted either for a power-press or a hand or foot press. It is especially applicable for a simple amateur press, to be operated by a treadle. The several features of improvement comprising our invention will be specified in the following description:

The frame-work A is of a form and construction suitable to mount the working-parts in, and to effect the special arrangements constituting parts of our invention, substantially as represented. The chase-plate or form B is arranged in an inclined position near one end of the press, as shown, and the ink-bed C is arranged at the other end in a horizontal position below the lower edge of the form, so that the inking-roller D may pass along over the ink-bed, and from thence upward under the form. The journals of the ink-roller move in guide-slots *a a*—one in each side of the press—one part being horizontal, and the other inclined, as represented, so as to direct the inking-roller in proper contact with both. Two inking-rollers, E F, for distributing the ink upon the ink-bed C, over which they have a lateral rolling reciprocating movement, are placed in position, not parallel, but inclined to each other, as shown, in order that they may more effectually spread and distribute the ink on the bed. Their journals turn in bearings *b b*, to which the proper reciprocating movements are given. The platen G is of bent form, as shown in Fig. 2, the portion which gives the pressure being in an inclined position, so as to ascend into exact parallelism with the surface of the form, and the other part being also in a position still more inclined, so as to bring the journals on which it vibrates down into a convenient, proper, and unobstructed position. In order to adjust the platen to exact parallelism with the form its

bearings *e e* of its pivot-journals *f f*, are capable of an up-and-down sliding movement in the sides of the frame, to be regulated by set-screws *g g*. This causes the lower edge of the platen to approach or recede from the form, so that when the swinging upper edge thereof is brought up to the form the required parallelism will be produced. The movements of the press are produced by a peculiar system of levers and connecting-rods. The power is first communicated to a bent lever, H, pivoted at the bend to the bed of the frame. The outer arm *h* receives an up-and-down reciprocating motion by means of a connecting-rod, I, from a crank, K, on a fly-wheel shaft, if the press is driven by power or by hand. If driven by a treadle the same may be attached directly to the outer end of the lever. The inner arm *i* forms one part of a toggle-joint, the other part, L, being pivoted thereto, and to the lower side of the platen G, the whole being so arranged that the depression of the outer end of the lever H will raise the platen to the form and produce the impression. The return movement of the platen is produced by its own gravity, assisted, if necessary, by a coiled spring, *l*, attached to its lower side at one end and to a cross-bar of the frame at the other end. The other movements are communicated from the platen. For this purpose its two journals, *f f*, project outward beyond the sides of the frame, and have attached thereto, respectively, two arms, M M, projecting downward, and to these arms, respectively, connecting-rods N N are pivoted, and extend thence forward, and are pivoted to the lower short arms of two vibrating levers, P P, which are pivoted at *m m* to the frame, and their long arms extend upward and backward, terminating each in a part which has a curved slot, *p*, therein, in which slots move and turn the journals of the ink-roller D, which project through the slots *a a* of the frame far enough for the purpose. The form of the curved slot is such that the vibration of these levers by the platen will move the ink-roller through the bent slots *a a* to the required distance over the ink-bed and under the form to ink the types. The driving-arms M M are adjustable in position on the journals of the platen, so as to produce the required sweep of these levers. The



remaining movement required is to cause the ink-distributing rollers E F to reciprocate over the ink-bed, and this is produced by connecting-rods Q Q, pivoted to the levers P P at one end, and to the sliding bearings *b b* of the roller at the other end. The rollers thus move in harmony, and never interfere with the inking-roller D.

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

1. In combination, with the form B, ink-bed C, and inking-roller D, arranged as described, the bent or curved slots *a a* in the sides of the frame A for directing the movements of the inking-roller over the bed and under the form, as set forth.

2. The combination and arrangement of the

bent lever H, toggle-arm L, platen-arms M M, connecting-rods N N, vibratory levers P P, and connecting-rods Q Q, as herein described, for producing all the movements of the printing-press, substantially as herein specified.

3. The combination of the slotted levers P P, with the slots *a a* in the sides of the frame for actuating the inking-roller, substantially as herein specified.

Specification signed by us this 6th day of February, 1872.

CHAS. F. BATCHELDER.  
WALTER E. GARD.

Witnesses:

P. H. WITE,  
CALVIN DE WOLF.