

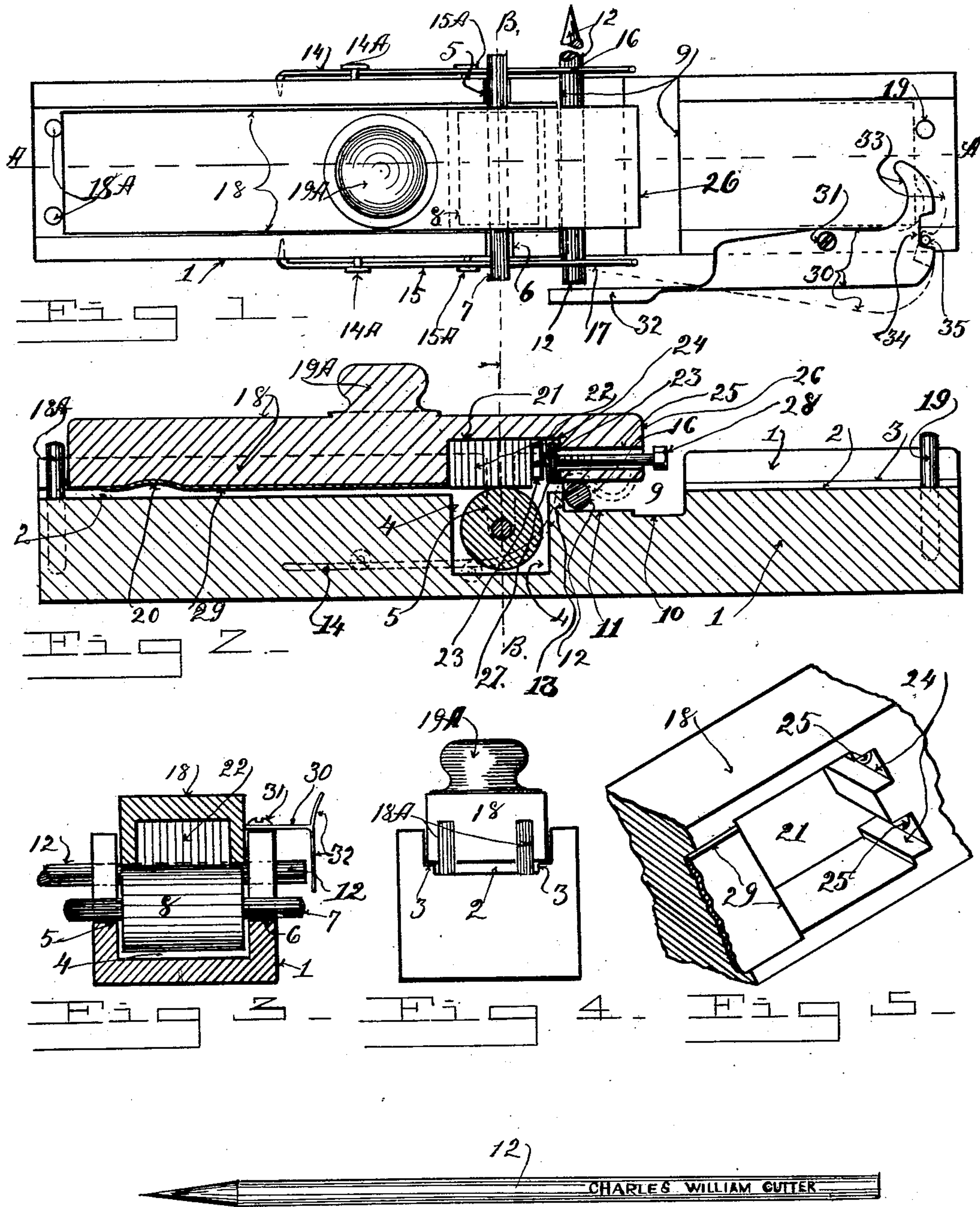
No. 664,726.

Patented Dec. 25, 1900.

C. W. CUTTER.  
PENCIL PRINTING MACHINE.

(Application filed Mar. 30, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES WILLIAM CUTTER, OF DENVER, COLORADO.

## PENCIL-PRINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 664,726, dated December 25, 1900.

Application filed March 30, 1900. Serial No. 10,823. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES WILLIAM CUTTER, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Pencil-Printing Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a machine for printing letters and words on wooden lead-pencils for advertising purposes; and the objects of my invention are to produce a hand-operating machine that will print a pencil and then automatically eject it from the machine; also, to provide a simple, cheap, compact, and durable hand pencil-printing machine. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my hand pencil-printing machine. Fig. 2 is a longitudinal section of Fig. 1 on line A. Fig. 3 is a cross-section of Figs. 1 and 2 on line B. Fig. 4 is a rear end elevation. Fig. 5 is a fragment of the type holding and impression block, and Fig. 6 is a side view of a lead-pencil with letters and words printed on it.

Similar numerals of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1 designates the base of the machine. It is composed, preferably, of a block of wood. A channel 2 is formed in it. This channel has a flat bottom and vertical sides. A step 3 is formed in each corner of the channel, the top of which is a little above the bottom of the channel. In the top of the base, between the sides of the block, a recess 4 is formed and through each side of the block slots 5 and 6, which form a bearing for the shaft 7 of the ink-roller 8. A recess 9 is cut across the base, in which the pencils are placed. This recess has two flat table portions 10 and 11. The lead-pencil 12 is first placed on the table 10 and is then moved on the table 11 and against the side 13 of the recess. On both sides of the base springs 14 and 15 are secured at one

end to the base. A pin 14<sup>A</sup> is placed above each spring and a pin 15<sup>A</sup> below each spring to support them. These springs extend to the recess 10 and are bent at their ends into curves 16 and 17, which fit over the lead-pencil and hold it firmly at right angles to the line of travel of the printing-block 18, but at the same time free enough to allow it to roll along the table portion 11 of the recess under the moving pressure of the printing-block. At each end of the base I place vertical stop-pins 18<sup>A</sup> and 19, which define the stroke of the printing-block. The printing-block rests and slides on the steps 3, which extend the whole length of the channel. A handle 19<sup>A</sup> is formed on its top or its bottom. A slightly-curved recess 20 is formed at a point to rest over the ink-roller when the printing-block is at the forward end of the stroke. This recess is large enough to leave a clear space above the ink-roller, so that when the printing-block stops the rotative motion of the ink-roller will continue, and thus bring fresh portions of the ink-roller in contact with the printing-type. A square recess 21 is made on the bottom of the printing-block at a point over the ink-roller when the printing-block is at the end of its back stroke, and against its rear pins in this recess the type 22 are placed, with their letters in the path of the ink-roller and their opposite ends against the bottom of the recess. The type are keyed in place, preferably, by a block 23, which is placed between them and the forward wall of the recess, in which there are formed slots 24. Holes 25 extend from these slots to the forward end 26 of the printing-block. In each of the slots a nut 27 fits loosely, and a cap-screw 28 is extended through the holes and threaded to the nuts and extends through them and is screwed against the block and presses the block and type against the opposite wall of their recess, thus holding them in their recess. A strip of leather 29 or other suitable material, which I term an "ink-pad," is secured on the under side of the printing-block and extends from the type-recess to a little beyond the curved recess 20. The ink is placed on this strip and is distributed by it evenly over the surface of the ink-roller.

At the forward end of the base-block a pencil-ejector is placed. This pencil-ejector com-



prises a thin strip of metal 30, pivotally secured intermediately of its ends by a screw 31 to the top end of one of the sides of the base. One end 32 of this ejector extends toward the ink-roller and is turned at right angles to the flat central portion, that is pivoted to the base and is broadened out and extends below and also above the central portion. The depending portion registers opposite the pencils and also acts as a gage to define the position of the pencils, which are moved against it when they are put into the machine. The opposite end of the ejector is curved into a hook member 33, that extends into the central portion of the base and in the path of the printing-block. A notch 34 is made in its edge, and a pin 35 is secured in the base in the notch in a position to define the rocking movement of the ejector on its pivotal point. A stop-pin 19 is also secured in the channel of the base, which stops the forward stroke of the printing-block at a point that will give the ejector only its full stroke when the block strikes it.

The operation is as follows: A pencil is placed in the recess 9 under the curve of the pencil-holdingsprings. Type is then selected to print any words desired—for example, "Charles William Cutter." These type are secured in the recess of the printing-block by the screw 28 and block 23. The ink-pad is then inked. The operator grasps the printing-block by its handle and bearing down hard on it gives it a very quick push forward against the forward stop-pin. The printing-block bears hard on the pencil, which rolls on the table 11 out from under the springs and drops onto the table portion 10, and as the type pass over it they impress their characters in its wood, as shown in Fig. 6, as the pencil rotates a full revolution before it drops onto the table 13. As the printing-block is moved very quick, it strikes the hooked end of the ejector with considerable force and moves the ejector into the position shown by the dotted lines, which throws its opposite end against the pencil with sufficient force to throw the pencils a foot or two out of the base of the machine.

About two thousand pencils can be printed by hand in an hour by this machine with great rapidity and are printed and ejected automatically.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pencil-printing machine, the combination with a base provided with an ink-roller, a pencil-receiving recess in said base, a spring on each side of said base arranged to resiliently hold pencils in printing position, with a printing-block slidably mounted in said base, means for securing type in said block in operative relation to said ink-roller, stops arranged in said base to define the operative printing stroke of said printing-block, and an automatic pencil-ejector comprising a pivoted lever secured to said base and arranged to be

engaged at one end by said printing-block at the end of its printing stroke and to strike said pencils with its opposite end, substantially as described.

2. In a pencil-printing machine, the combination of a suitable base, a recess in said base, a suitable ink-roller rotatably mounted in said recess, a channel in said base, a printing-block arranged to slide in said channel, means for defining the movement of said printing-block, a type-receiving recess in said block, screws arranged to secure said type in said recess in inking relation to said ink-roller, a pencil-receiving recess in said base arranged to allow said printing-block to bear on said pencils and springs arranged on each side of said base having a curved portion arranged to partially surround said pencils and confine them in printing relation to said printing-block, substantially as described.

3. In a pencil-printing machine the combination of the base, the ink-roller mounted therein, the pencil-holding recess, the pencil-holding springs and the stop-pins, with the printing-block, the type-recess, the nuts and screws for holding type in said recess, the ink-distributing pad on the bottom of said printing-block and the pencil-ejector, substantially as described.

4. In a pencil-printing machine, the combination of a suitable base, the ink-roller mounted in said base, a station at which pencils are placed in said base, springs arranged to hold said pencils in operative printing relation, a printing-block adapted to reciprocate in said base, an ink-pad in the bottom of said block, a clearance-recess in said ink-pads for said ink-rolls at the end of the printing-block's stroke, means for securing type in said blocks in operative relation to said ink-roller and said pencils, means for defining the printing stroke of said printing-block in said base, a lever pivoted intermediate of its ends to said base, having one end adapted to be struck by the printing-block at the end of its printing stroke and its opposite end arranged to strike the pencils and eject them from the machine, a slot in said lever and a pin in said slot arranged to define the movement of said lever, substantially as described.

5. In a pencil-printing machine the combination of a suitable base, an ink-roller rotatably mounted in said base, a pencil-station in said base, springs arranged to hold pencils at said station, a printing-block reciprocally mounted in said base, a push-handle on said printing-block, pins at each end of said base arranged to define the movement of said printing-block, a type-receiving recess in said printing-block, slots in one wall of said recess, a nut in said recess, holes extending from said slots to the end of said printing-block, screws extending through said holes and nuts and adapted to secure said type in said recess, with the pencil-ejector comprising a lever pivoted to said base intermediate of its ends, a hooked end on one end of said lever arranged



to extend into the reciprocal path of said printing-block, and adapted to be struck by said block at the end of its operative printing stroke and having its opposite end arranged  
5 and adapted for a gage to define the position of the pencils in the base and to move forcibly against them and eject them from the base when the hooked end is struck by said printing-block, substantially as described.

10 6. In a pencil-printing machine, the combination of the base, the ink-roller, the printing-block, means for securing type in said printing-blocks, the ink-distributing pad at-

tached to said printing-block, the stop-pins in said base, with the pencil-slot, the pencil- 15 holding springs adapted to hold pencils in said slot, and the automatic pencil-ejector adapted to discharge pencils from said machine, substantially as described.

In testimony whereof I affix my signature 20 in presence of two witnesses.

CHARLES WILLIAM CUTTER.

Witnesses:

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CLAUDE A. DUNN.