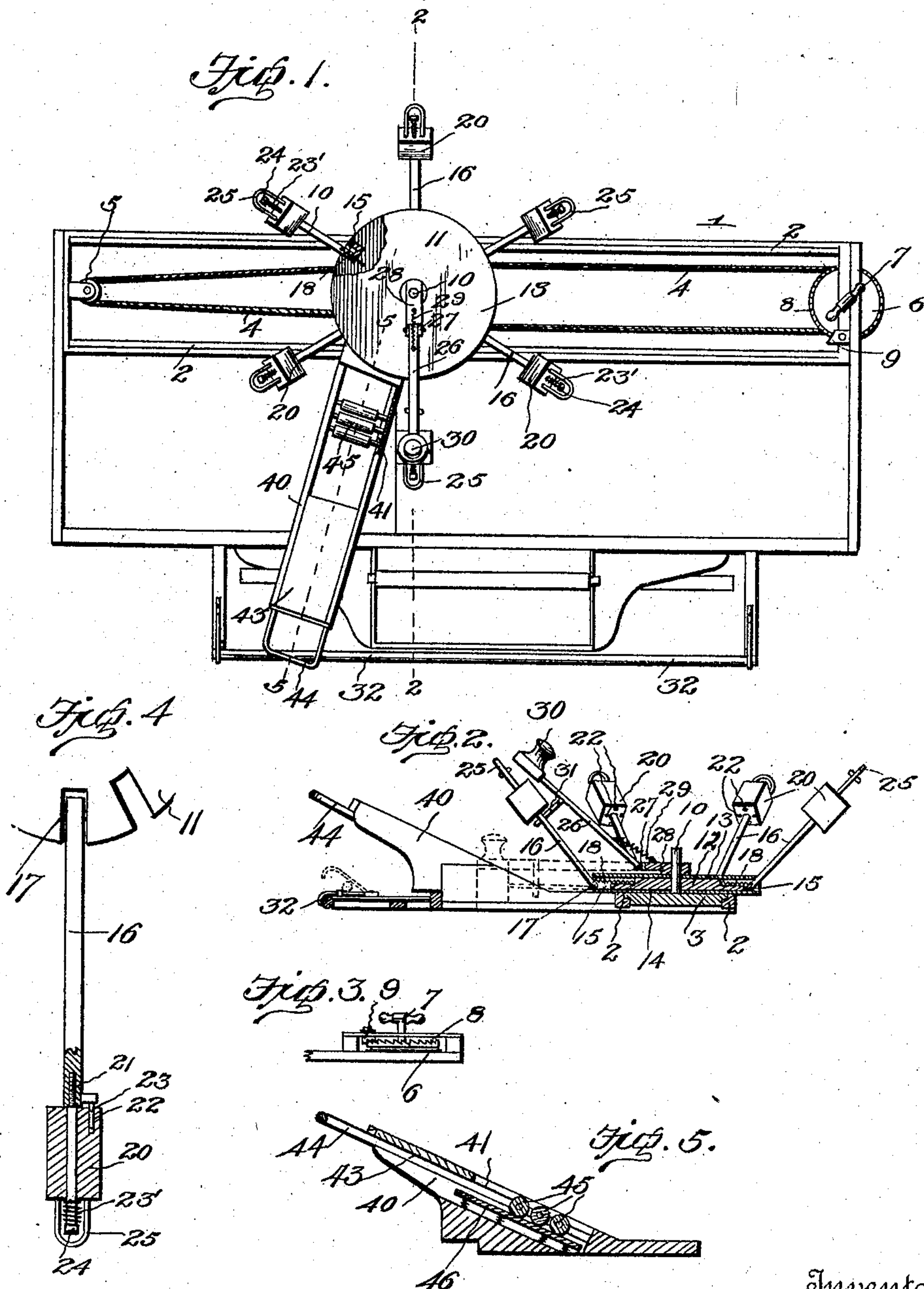


No. 815,808.

PATENTED MAR. 20, 1906.

D. GERNER.
SIGN PRINTER AND STENCIL CUTTER.
APPLICATION FILED JUNE 1, 1905.



Witnesses
C. E. Hunt.
J. H. Griesbauer.

Inventor
Daniel Gerner.
by *A. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

DANIEL GERNER, OF CHICAGO, ILLINOIS.

SIGN-PRINTER AND STENCIL-CUTTER.

No. 815,808.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed June 1, 1905. Serial No. 263,265.

To all whom it may concern:

Be it known that I, DANIEL GERNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sign-Printers and Stencil-Cutters; 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.

My invention relates to improvements in sign-printers and stencil-cutters; and it consists in the novel features of construction, combination, and arrangement of devices herein described and claimed.

The object of the invention is to provide a simple, durable, and comparatively inexpensive mechanical device of this character which will be efficient in operation and well adapted for the purposes intended.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved sign-printer and stencil-cutting device. Fig. 2 is a vertical transverse sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a detail view showing the means for retaining the carriage in an adjusted position. Fig. 4 is a detail view showing the manner in which the printing or cutting blocks are mounted and adjusted; and Fig. 5 is a detail sectional view taken on the line 5 5 in Fig. 1, showing the inking device.

Referring to the drawings by numeral, 1 denotes a suitable frame formed at its rear with longitudinally-extending guides 2, in which is slidably mounted a reciprocating carriage 3. This carriage is preferably moved from one end of the frame to the other by means of an endless band or cable 4, which is secured at one point to said carriage and which passes around a pulley 5 at one end of the frame and a pulley or wheel 6 at the opposite end of the frame. Either of these pulleys or wheels may be rotated in any desired manner for the purpose of reciprocating the carriage; but I preferably provide the axle or shaft of the wheel 6 with a lever 7 for this purpose. A spacing movement may be given to the carriage by providing the wheel 6 with an annular series of ratchet-

teeth 8, which are in the form of a crown-wheel and which are engaged by a ratchet 9, as shown in Figs. 1 and 3 of the drawings. Upon the top of the carriage is provided a vertically-projecting stud 10, which forms the axis of a rotary impression-block carrier 11. The latter is in the form of a disk 12, secured between top and bottom plates 13 14 and formed in its periphery with radially-extending slots 15, in which are mounted swinging arms or bars 16. The latter may be mounted and held in an elevated position in any desired manner; but I preferably hinge or pivot them, as shown at 17, and retain them in an elevated position by springs 18. Upon the outer ends of these arms or bars 16 are adjustably mounted impression-blocks 20, by means of which the printing or cutting is done. As shown, these blocks are of cubical form and have upon four of their faces or sides suitable characters. The blocks are mounted upon the bars or arms 16, as clearly shown in Fig. 4 of the drawings, by forming them with centrally-disposed openings to receive reduced portions or rods 21 upon the bars 16, and thereby pivot them to permit any of their impression-faces to be moved to an operative position. The blocks are retained in such position by forming in their inner ends recesses 22, which are adapted to receive locking-pins 23, carried by the arms 16. The blocks are adjusted by sliding them longitudinally upon the rods 21 until the pins 23 are disengaged from one of the recesses 22 and then turning or rotating them to permit the pins 23 to enter the desired recesses 22, so that the desired character upon the block 20 will be lowermost and in an operative position. In order to hold the blocks 20 in their locked position, coil-springs 23' are placed upon the outer ends of the rods 21 and confined between the ends of the blocks and heads 24, as shown. The blocks 20 are also preferably provided at their outer ends with U-shaped finger-pieces 25, by means of which they may be readily slid longitudinally and rotated.

The impression-blocks are operated by a lever 26, which is adapted to swing them downwardly upon the paper or other object which is to be cut or printed upon and which is supported upon the frame 1. The lever 26 has its inner end pivotally mounted, as shown at 27, upon a bracket 28, secured upon the stud 10, and it is held in an elevated position

preferably by a coil-spring 29. Upon the outer end of the lever 26 is a finger piece or knob 30, by means of which the same may be readily operated. Upon the intermediate
 5 portion of the lever is a downwardly-projecting stop-arm 31, adapted to engage any one of the bars or rods 16 for the purpose of rotating the carrier 11 and bringing the desired block into position to be depressed. The
 10 paper or other material to be operated upon is retained in position by a bar 32, having a pin at either end to hold the paper in place. This bar is attached to two projections from the main frame by springs or hinges, so that
 15 it may be adjusted up or down, relieving the paper as desired.

Upon the carriage 3 is mounted an inking device for the die or type blocks 20. This device comprises a frame 40, formed with
 20 guide-grooves 41 to receive a sliding frame 43. The latter has a handle 44 at its outer end, and at its inner end is journaled a series of inking-rollers 45, which are adapted to be reciprocated by the sliding movement of said
 25 sliding frame across the characters upon the blocks 20 and above and in contact with an inking bed or platen 46, which is supported within the frame 40 by springs, as clearly shown in Fig. 5 of the drawings.

30 When the machine is to be used for cutting stencils of pasteboard or other suitable material, the blocks 20 will be provided with suitable cutting-dies. The pasteboard or other stencil material will be retained in position by the bar 32, as above described, and
 35 the bars or rods 16 will be operated by the lever, also as above described.

From the foregoing description, taken in connection with the accompanying drawings,
 40 the construction and operation of the inven-

tion will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin- 45
 ciple or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 50

1. In a machine of the class described, the combination of a supporting-frame, a carriage slidably mounted on said frame, direction-pulleys mounted on said frame on opposite sides of the carriage, one of said pulleys hav- 55
 ing a ratchet device, means whereby said pulley may be turned, a pawl to engage the ratchet device, and an endless belt secured to the carriage and engaging the said pulleys, substantially as described. 60

2. In a device of the character described, the combination of a swinging arm having a reduced outer portion, an impression-block of polygonal form in cross-section, slidably and rotatably mounted upon said reduced 65
 portions and having different characters upon its side faces, the inner end of said block being formed with a series of recesses corresponding in number to the number of side faces upon said block, a stop upon said arm, 70
 and a spring for holding said stop normally in engagement with one of said recesses.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DANIEL GERNER.

Witnesses:

ALBERT E. WEED,
 F. E. ORMSBY.