

No. 632,626.

Patented Sept. 5, 1899.

A. G. BEATER.
APPARATUS FOR MAKING EMBOSSED DIES.

(Application filed June 2, 1898. Renewed Aug. 8, 1899.)

(No Model.)

Fig. I,

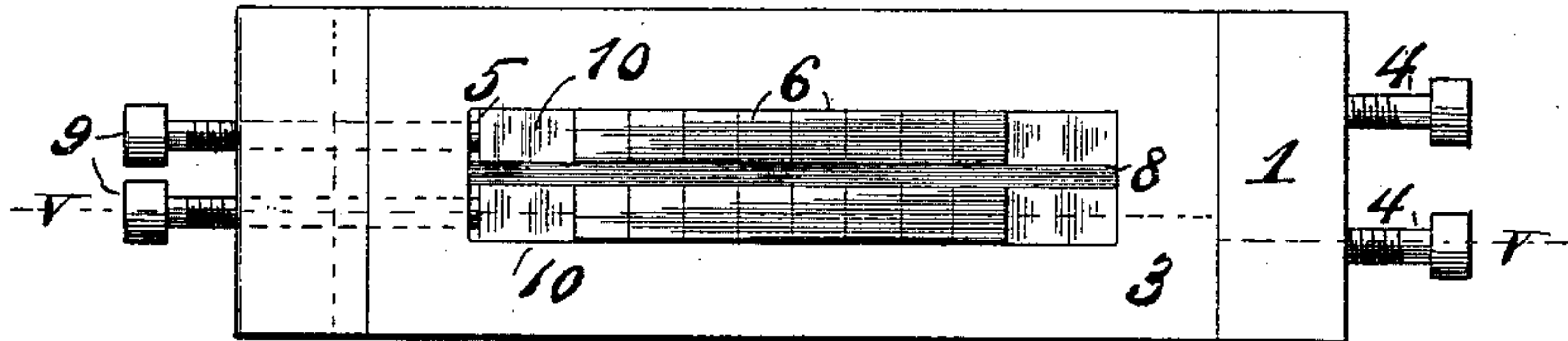


Fig. II,

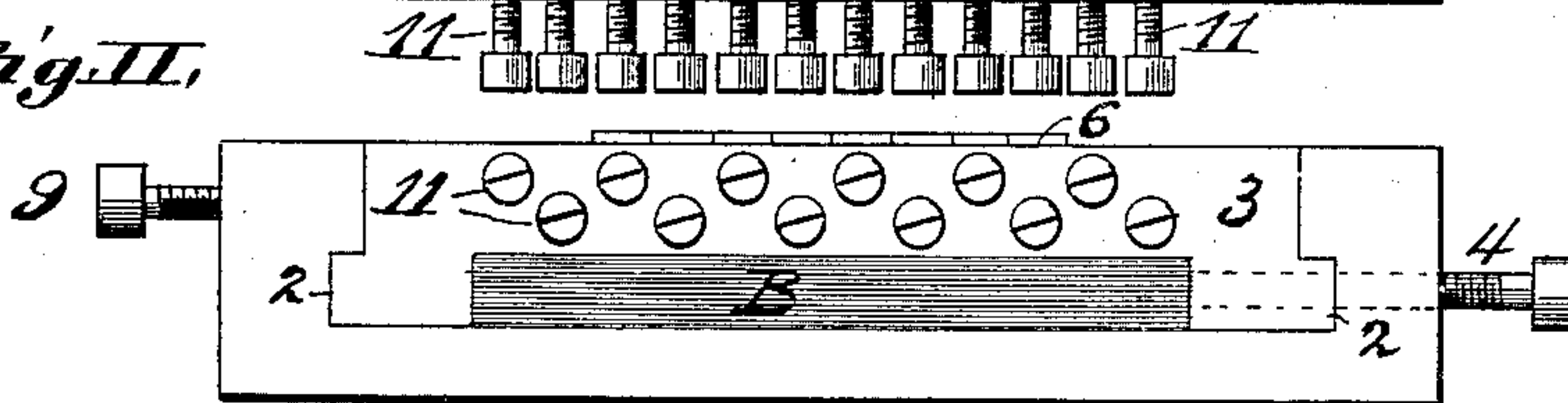


Fig. III,

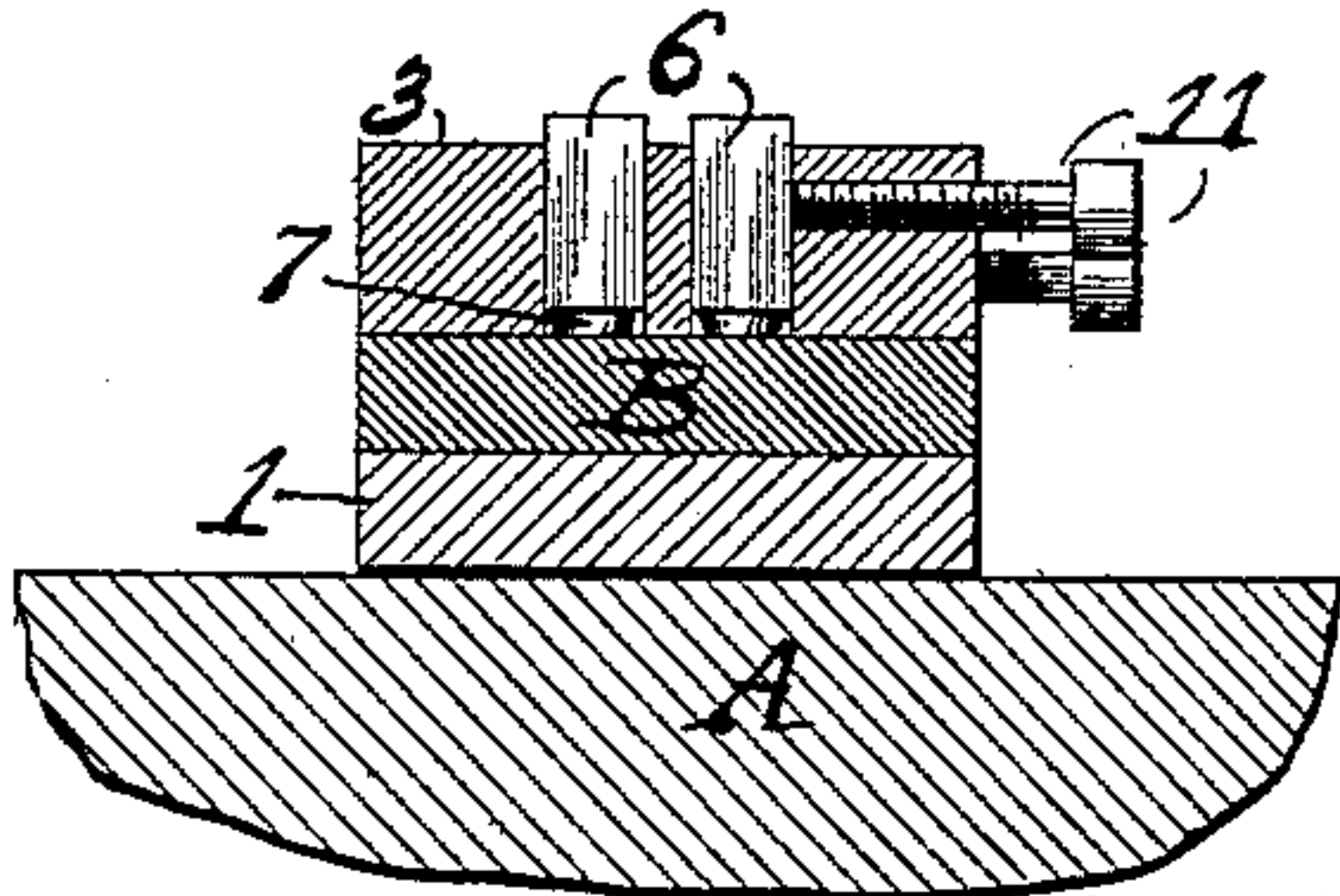


Fig. IV,

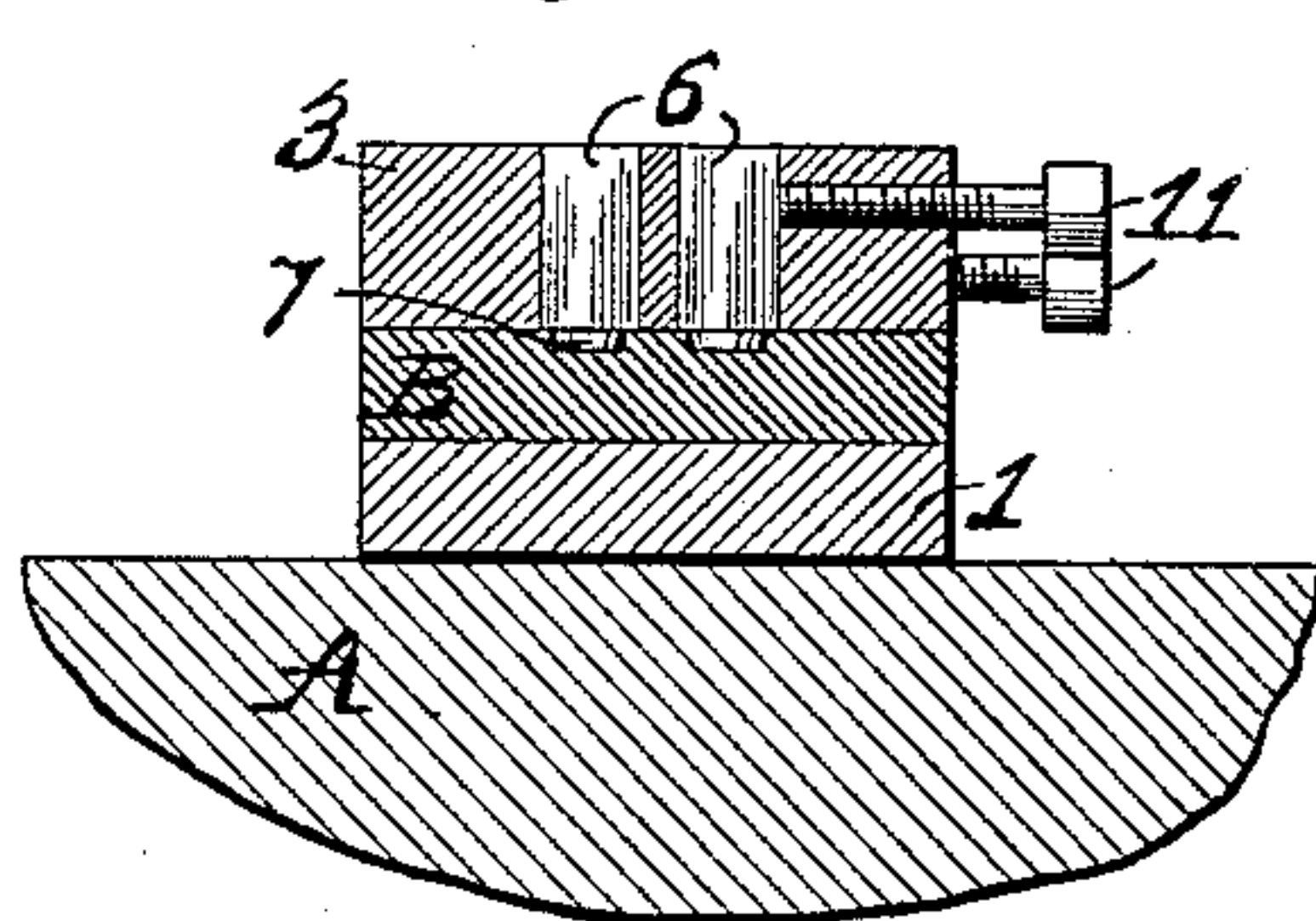


Fig. V,

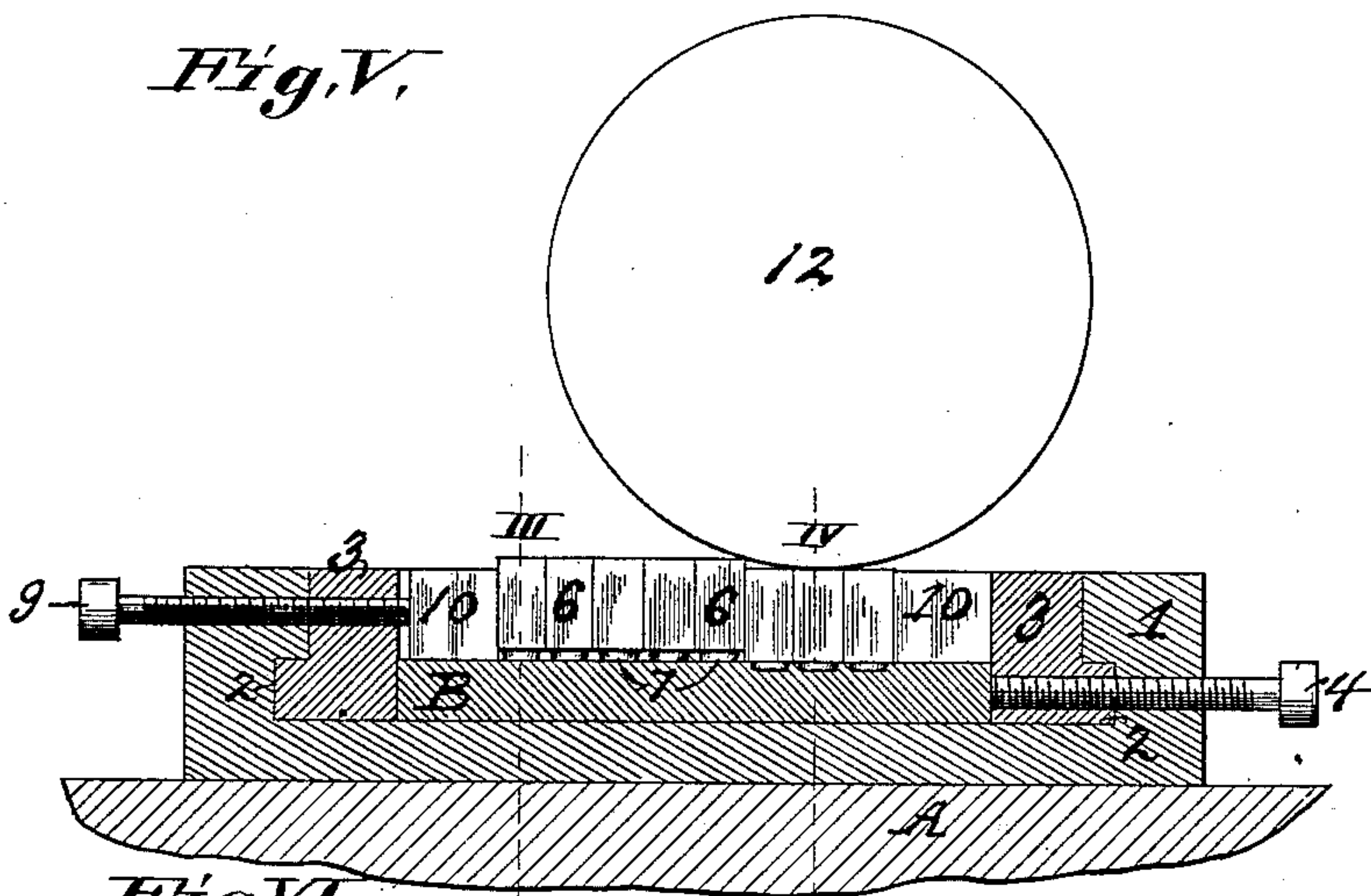
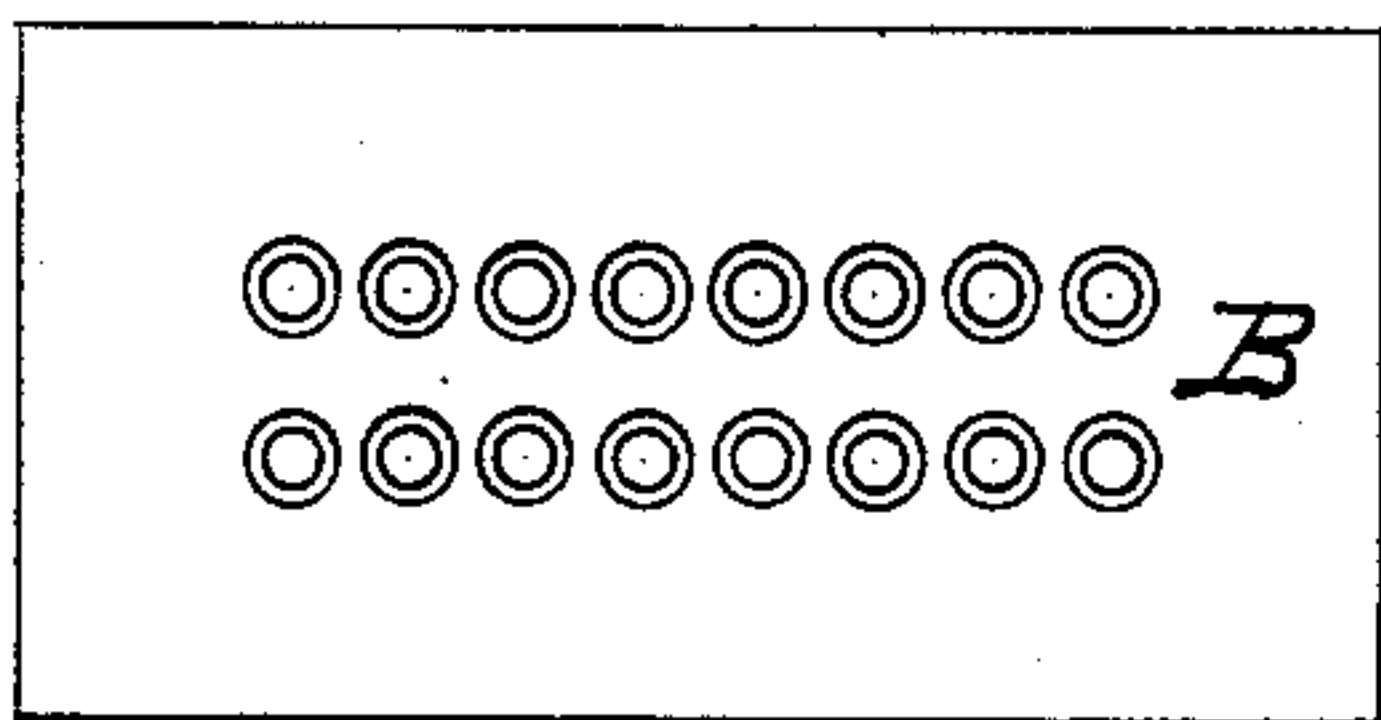


Fig. VI,

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UNITED STATES PATENT OFFICE.

ALFRED G. BEATER, OF ST. LOUIS, MISSOURI.

APPARATUS FOR MAKING EMBOSSING-DIES.

SPECIFICATION forming part of Letters Patent No. 632,626, dated September 5, 1899.

Application filed June 2, 1898. Renewed August 8, 1899. Serial No. 726,599. (No model.)

To all whom it may concern:

Be it known that I, ALFRED G. BEATER, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have
5 invented certain new and useful Improvements in Apparatus for Making Embossing-Dies, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part
10 of this specification.

My invention relates to an apparatus for making dies for embossing letters, characters, or designs on paper or other thin sheet material.

15 My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a top view of the apparatus. Fig. II is a side elevation or edge view of the apparatus. Fig. III is a cross-sectional view taken on the line III III, Fig. V. Fig. IV is a cross-sectional view taken on the line IV IV, Fig. V. Fig. V is a longitudinal sectional view taken on the line V V, Fig. I. Fig. VI
25 is a face view of a die made in carrying out my method.

My apparatus comprises a suitable frame in which punches are inserted in such manner that they may be forced against a die-plate seated in the frame by the pressure of
30 a roller or cylinder moving in contact with the rear of the punches and forcing them toward the die-plate to embed the characters, letters, or designs on the punches into the
35 die-block.

1 designates the outer member of the frame of the apparatus, which may be suitably mounted upon a bed A. The member 1 is open at its upper side and is provided with
40 channel grooves 2, that receive extensions at the end of an inner member 3, seated within the outer member. The member 3 is designed to be inserted into the member 1 by slipping it thereinto from either side of the apparatus.
45 The member 2 has its lower side channeled from side to side for the purpose of permitting the insertion of the die-plate B, which may be inserted from either side of the device and when in position is secured by a
50 set-screw 4, that passes through the members 1 and 3 and bears against one end of the

die-plate to hold it rigid. There may be more than one of said set-screws employed, according to the size of the die-plate, if more than one screw is required to hold the plate in
55 proper position. The inner member 3 is provided with a pocket 5, designed to receive punches 6, that bear the characters to be impressed into the die-plate B. Each punch is provided with a character 7 at its inner end.
60 The punches 6 may be arranged in one or more lines within the pocket 5, according to the width of the pocket and the thickness of the punches, and when more than one line of punches is used the lines are separated
65 by a division-strip 8. The punches are secured within the pocket 5 from endwise movement by set-screws 9, inserted through the frame members 1 and 3, and where the punches do not occupy the length of the
70 pocket the space is filled by blocks 10, against which the set-screws 9 bear. The punches are held from sidewise displacement by set-screws 11, inserted through the frame member 3 and bearing against the punches through
75 the medium of interposed metallic strips. The body of each punch 6 is of a length corresponding to the depth of the pocket 5 in the frame member 3, and the characters 7
80 render the punches of a length exceeding the depth of the pocket only by the depth of the characters.

12 designates a pressure roller or cylinder adapted to move across the outer surface of the frame member 3 and in contact with the
85 outer ends of the punches 6, as seen in Fig. V, the roller or cylinder being of sufficient width to bear upon the frame member 3 at each side of the punches. In the operation of the apparatus the roller 12 may be moved
90 along the surface of the punch-containing frame, or the frame may be reciprocated and the roller be mounted in a stationary support, or both parts may travel, moving in opposite directions. The roller in its movement
95 against the frame and punches causes the punches to be forced inward and the characters 7 to be embedded in the die-plate to produce the die. The roller is caused to roll against the punches backward and forward
100 until such time as the characters 7 of the punches have been thoroughly embedded in

the die-plate, a condition attained when the outer ends of the punches have been carried into a position flush with the outer surface of the frame member 3, against which the roller operates. Pressure between the punch-containing frame and the roller may be accomplished in any suitable manner.

I claim as my invention--

1. An apparatus for making embossing-dies
10 consisting of a frame adapted to receive a die-plate and provided with a continuous pocket, punches located in said pocket adapted to be brought into contact with said die-plate, and means whereby pressure may be effected
15 against said punches and whereby said

punches are embedded in said die-plate to produce the die; substantially as described.

2. An apparatus for making embossing-dies consisting of a frame adapted to receive a die-plate, punches located in said frame adapted
20 to be brought into contact with the said die-plate, and a roller whereby pressure may be effected against said punches and whereby said punches are embedded in said die-plate to produce the die; substantially as described. 25

ALFRED G. BEATER.

In presence of--

E. S. KNIGHT,
STANLEY STONER.