

No. 629,423.

Patented July 25, 1899:

W. H. CAPS.
STEREOTYPE PLATE.

(Application filed Mar. 11, 1898.)

(No Model.)

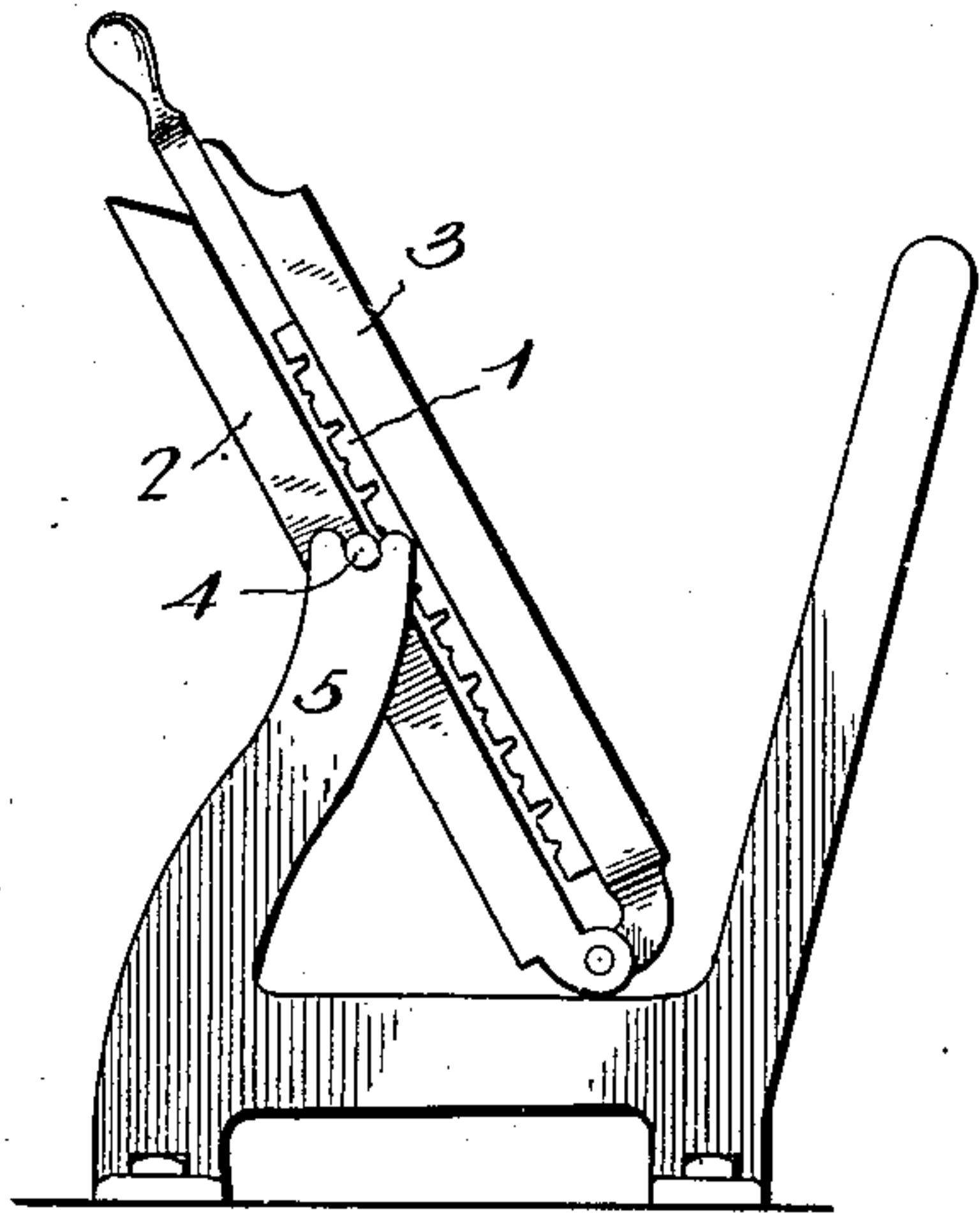


Fig. 1.

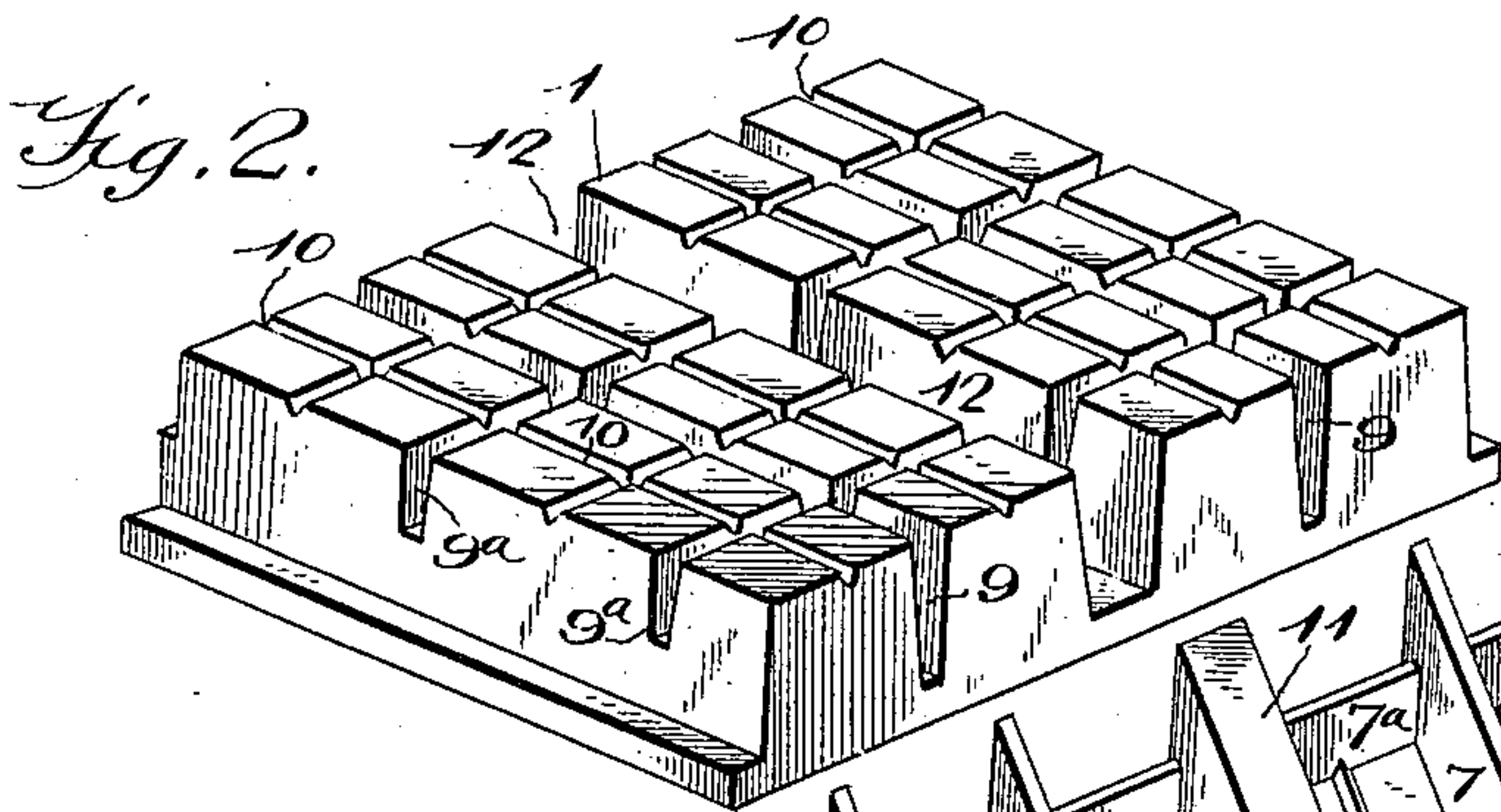


Fig. 2.

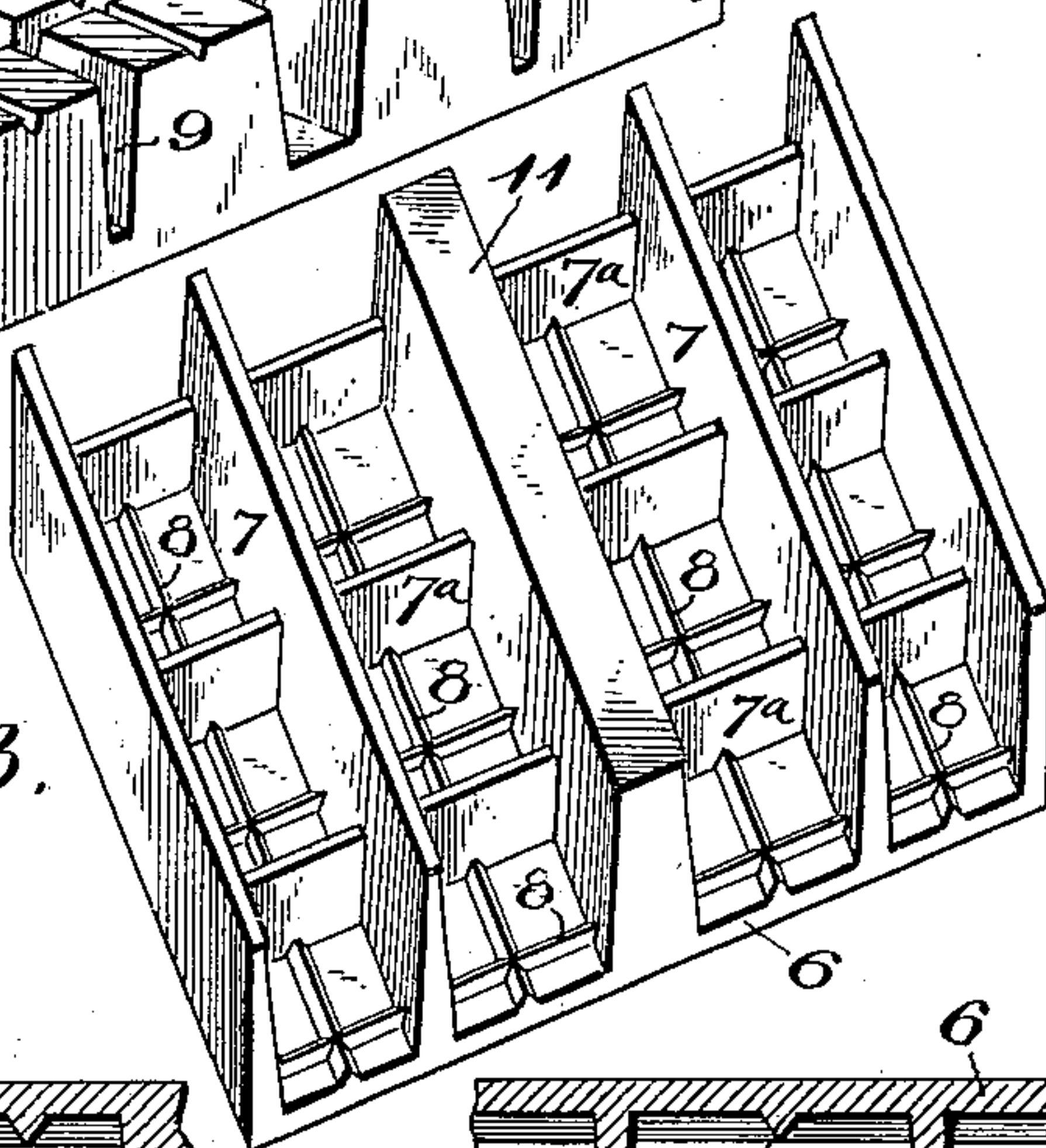


Fig. 3.

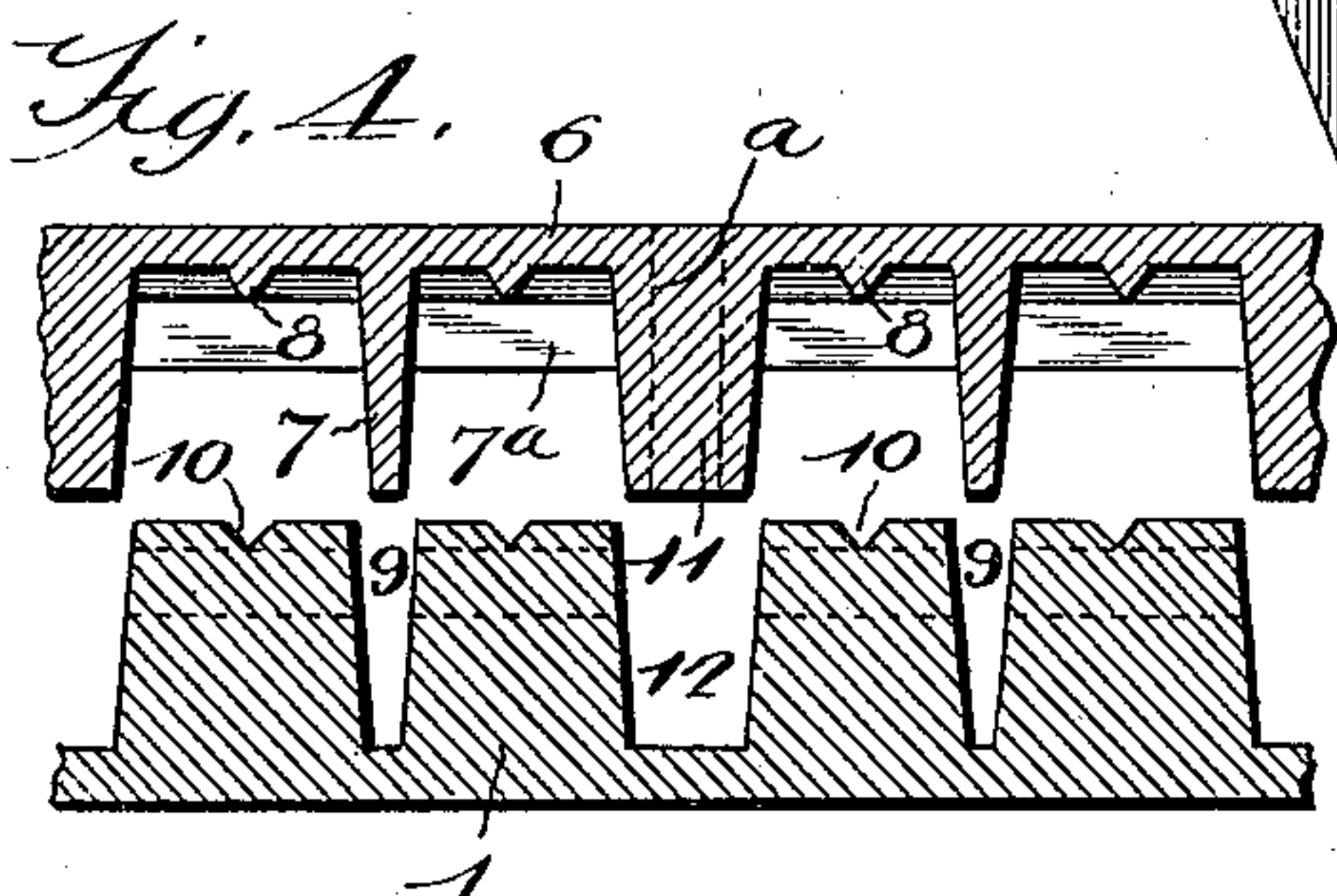


Fig. 4.

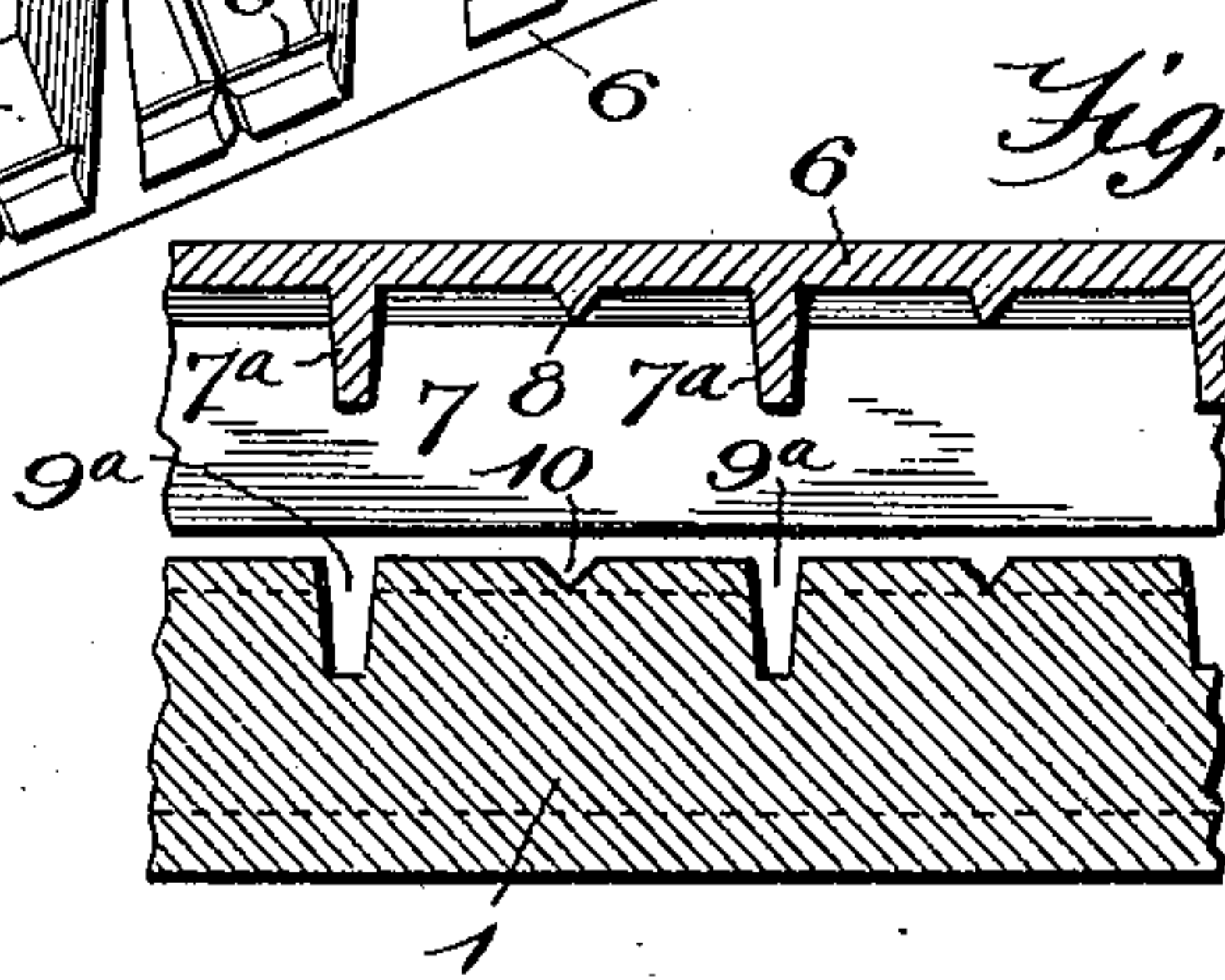


Fig. 5.

Witnesses

J. G. Culverwell,

By *his* Attorneys.

William H. Caps, Inventor.

[Signature]

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UNITED STATES PATENT OFFICE.

WILLIAM H. CAPS, OF KANSAS CITY, MISSOURI.

STEREOTYPE-PLATE.

SPECIFICATION forming part of Letters Patent No. 629,423, dated July 25, 1899.

Application filed March 11, 1898. Serial No. 673,456. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CAPS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Stereotype-Plate, of which the following is a specification.

My invention relates to stereotype-plates, and has for its object to provide a light type-high stereotype-plate particularly adapted for newspaper and similar purposes, said plate being well bridged, and hence being so braced as to adapt it to maintain its proper shape both during transportation and particularly during its removal from the mold.

It is desirable in the construction of stereotype-plates, and particularly those of considerable area suited for newspaper and similar work, to attain lightness, whereby the plates may be handled with facility and convenience; but it is also necessary that the same should have sufficient strength to resist strains applied thereto in removing it from the mold and to prevent distortion or buckling during transportation; and to attain the dual advantage of lightness and strength is the main object of my present invention.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a portion of a stereotyping apparatus provided with a mold adapted to form a plate constructed in accordance with my invention. Fig. 2 is an inverted perspective view of a portion of the mold. Fig. 3 is a similar view of the improved plate. Figs. 4 and 5 are, respectively, transverse and longitudinal sections of the stereotype-plate having backs cast in accordance with my invention, and also showing corresponding portions of the molds slightly removed or displaced with relation to the plate-sections.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

The mold 1, which, however, forms no part of my present invention, is constructed of brass or other suitable material and may be used in connection with a casting-box of the or-

inary construction, the same having a base or bottom 2 and a cover 3 and said base being provided with lateral trunnions 4, mounted in suitable open bearings in a supporting-frame 5.

In the ordinary practice a stereotype-plate 6 is provided with main longitudinal and transverse bracing-webs or bridges 7 and 7^a and auxiliary shallow connecting-webs or bridges 8, between the longitudinal webs or bridges, as illustrated in Figs. 3 to 5, inclusive, the mold being provided with corresponding main longitudinal and transverse grooves or runs 9 and 9^a and auxiliary connecting grooves or runs 10, in which said bracing-webs or bridges are formed. In order, however, to facilitate the flowing of the stereotype metal into these main and auxiliary grooves or runs and at the same time provide the stereotype-plate at intervals with enlarged bracing-webs or bridges 11, I provide a mold 1 with longitudinal enlarged grooves or runs 12, equal in cross-sectional area to a plurality of main grooves or runs 9 and 9^a, and having flat floors, whereby after the conclusion of the casting operation said enlarged bracing-webs or bridges may be utilized as means for displacing the plate without twisting or bending the same. These enlarged grooves or runs form suitable channels for conveying the molten stereotype metal to the grooves or runs of smaller cross-sectional area, and thus insure the proper formation of the plate.

The described construction of plate is particularly adapted for use where a plurality of columns, as two or more, are formed in one plate, and hence where the plate is of large area and after removing the plate from the mold it may, if preferred, be divided, in the thickness of the enlarged bracing-web or bridge, by sawing the same upon the dotted line *a* (shown in Fig. 4) to form plate-sections. The enlarged bracing-web or bridge is preferably made of a cross-sectional construction corresponding with that of the ordinary bracing-webs, the lower edge of the former being in a common plane with the corresponding edges of the latter.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit

or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

5 1. A stereotype-plate having its back provided with intersecting longitudinal and transverse main bracing-webs or bridges, and an intermediate supplemental bracing-web or bridge intersecting angularly-disposed main
10 bracing-webs, and exceeding the same in cross-sectional area, substantially as specified.

2. A stereotype-plate having its back provided with transverse main bracing-webs or bridges, and a longitudinal supplemental
15 bracing-web or bridge intersecting said transverse bracing-webs, substantially as specified.

3. A stereotype-plate having its back provided with intersecting longitudinal and transverse main bracing-webs or bridges, and
20 also provided with a supplemental stiffening-web or bridge connected with the main bracing-webs or bridges and exceeding the same in cross-sectional area, substantially as specified.

25 4. A multiple-column stereotype-plate, hav-

ing its back provided, in the planes of the division-lines between the columns with continuous bracing-webs, substantially as specified.

5. A multiple-column stereotype-plate having its back provided in the plane of the division-line between adjacent columns with a longitudinally-divisible bracing-web or bridge, substantially as specified. 30

6. A multiple-column stereotype-plate having its back provided in the plane of the division-line between adjacent columns with a longitudinally-divisible bracing-web or bridge, and also provided between said bracing-webs with auxiliary bracing-webs of smaller cross-sectional area having their rear edges in a common plane with that of the first-named bracing-web, substantially as specified. 35 40

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM H. CAPS.

Witnesses:

G. H. ROYRDAN,
D. W. SNYDER.