

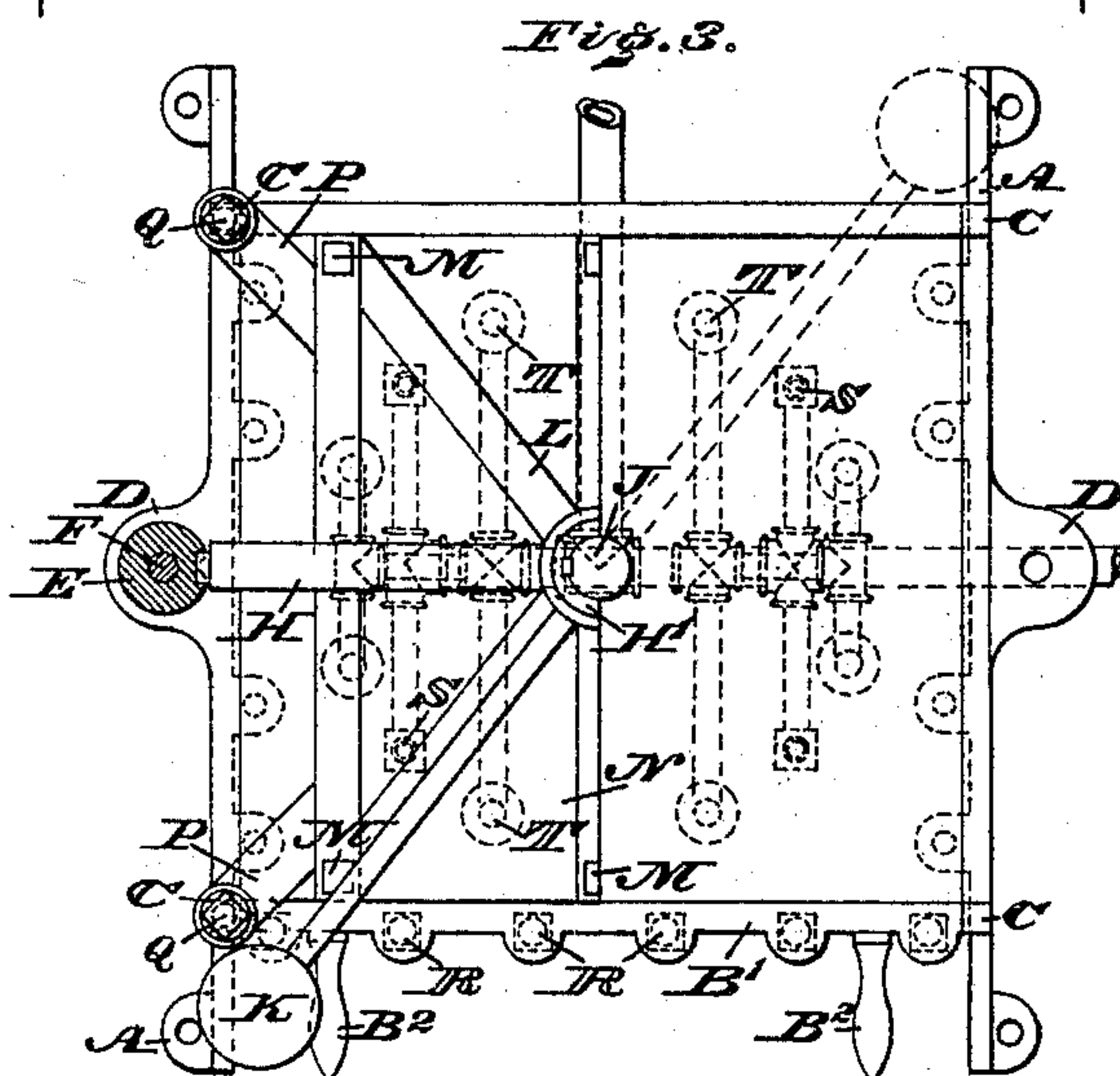
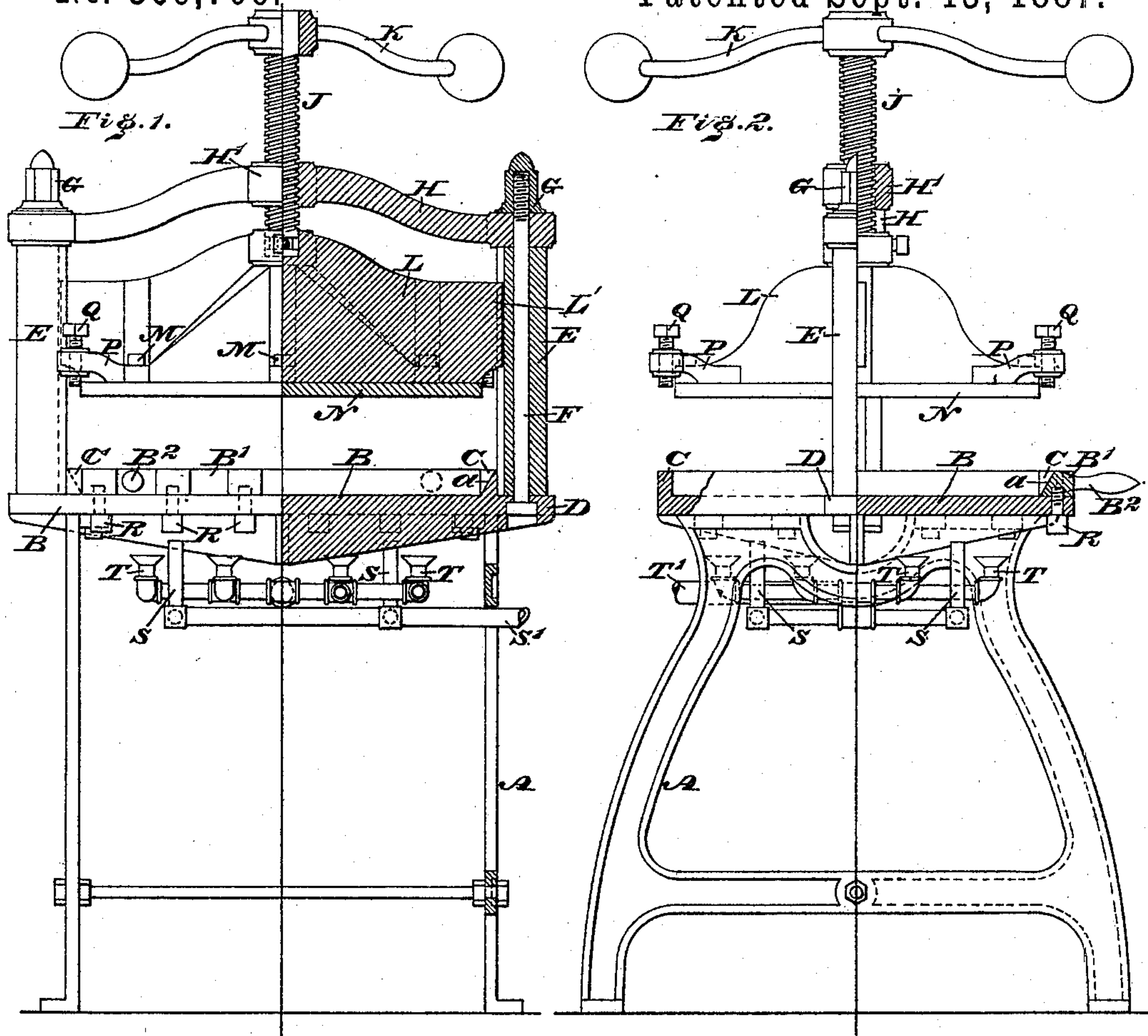
(No Model.)

R. GNICHWITZ.

# APPARATUS FOR BACKING ELECTROTYPES.

No. 369,706.

Patented Sept. 13, 1887.



WITNESSES:

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*Fig. 4.*

BY

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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR BACKING ELECTROTYPES.

SPECIFICATION forming part of Letters Patent No. 369,706, dated September 13, 1887.

Application filed February 4, 1886. Serial No. 190,805. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLPH GNICHWITZ, a citizen of the United States, residing at Ashbourne, in the county of Montgomery, State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Backing Electrotypes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 represents a partial front elevation and partial vertical section of an apparatus for backing electrotypes embodying my invention. Fig. 2 represents a partial side elevation and partial vertical section at a right angle to that  
15 shown in Fig. 1. Fig. 3 represents a top or plan view thereof, parts of the apparatus being removed and other parts being in horizontal section. Fig. 4 represents a modification of part N shown in Figs. 1 and 2.

20 Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to improvements in apparatus for backing electrotypes to a proper height for blocking or for direct use in printing-presses—that is, to “type-height;” and it  
25 consists, essentially, of means for adjusting the apparatus to the work to be accomplished and producing the electrotypes with true, smooth, and even backings, avoiding shaving, straightening, &c.

30 Referring to the drawings, A represents a stand on which is mounted a bed-plate, B, the tops of the sides or the top rims whereof are beveled on its inner faces, as at *a*, and the corners provided with pedestals or blocks C. On  
35 the bed-plate are lugs or projections D, to which are bolted columns E, the upper ends of which support a cross-head, H, which is held in position by nuts G, said cross-head having at its  
40 center a threaded boss, H’.

J represents a vertically - arranged screw, which is fitted to the boss H’, and provided with an operating-handle, K, the lower end of said handle being swiveled to a follower, L, whose  
45 sides have tongues L’, which are guided true on the columns E.

Connected with the under side of the follower by means of screws M is a plate, N, whose lower face is a plane parallel with the bed-plate B.

50 Secured to the corners of the follower and overhanging the corners of the plate N are arms P, to which are fitted vertically-arranged screws

Q, so located that they are in line with the abutments or blocks C of the bed-plate and adapted to abut thereagainst for the purpose of adjusting the distance between the plate N and bed-plate B. The bed-plate has its front rim, B’,  
55 removably secured in position by means of bolts or screws R, said rim being provided with handles B<sup>2</sup> for convenience of displacing and  
60 reapplying the same.

Supported on the frame or stand, and beneath the bed-plate, is a series of Bunsen’s burners, S, or other heating device for gas or other medium, whereby the bed-plate may be heated,  
65 and also jets T for directing cold air against said bed-plate.

The operation is as follows: A templet or block of the thickness desired in the electrotype is placed on the bed-plate B and the screw  
70 rotated until the plate N rests on the templet. The screws Q are now operated until they abut against the blocks C, and the follower is then raised to allow access to the templet, which is now removed. The electrotype or copper shell,  
75 which is coated on its rear side with tin or solder, is then placed on the bed-plate and the burners S lighted, so as to heat the bed-plate until the tin or solder melts. A sufficient quantity of type-metal is now poured into the bed-plate  
80 and the follower lowered until the screws again abut against the blocks C. The burner is now lowered or extinguished and cold air turned on and directed by the jets J against the bed-plate, thus cooling the plate or electrotype as  
85 cast. The screw is then rotated, whereby the follower is raised and the plate N cleared of the electrotype, after which the screws R are loosened and the rim B’ removed. The electrotype is now withdrawn, this being readily  
90 accomplished, owing to the beveled sides of the bed-plate, it being smooth, true, and of uniform thickness and ready for blocking. The rim B’ is replaced and secured by the screws R, the cold air being shut off, if not previously  
95 attended to, and the burners are again lighted or turned on and the other operations repeated.

When it is desired to produce electrotypes of type-height without blocking, the plate N shown in Figs. 1 and 2 is substituted by that  
100 shown in Fig. 4. By the use of the latter I obtain, after the adjustment of the screws Q, an electrotype lightened by the cores N’ and sufficiently strong for use.

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

- 5 1. An electrotpe apparatus, substantially as described, having a follower provided with arms P, with adjusting-screws Q, which are adapted to abut against the bed-plate, substantially as described.
- 10 2. In an apparatus for backing electrotypes, a follower having a detachable under plate se-

cured to said follower, and provided with projecting arms having screws, in combination with a bed-plate having corner abutments or raised blocks, all substantially as and for the purpose set forth.

RUDOLPH GNICHWITZ.

Witnesses:

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