

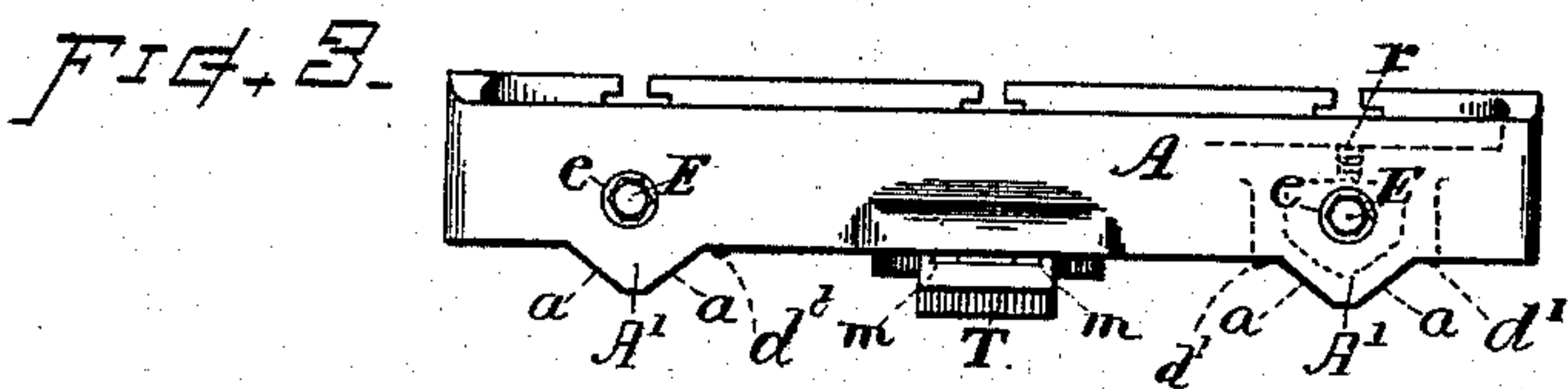
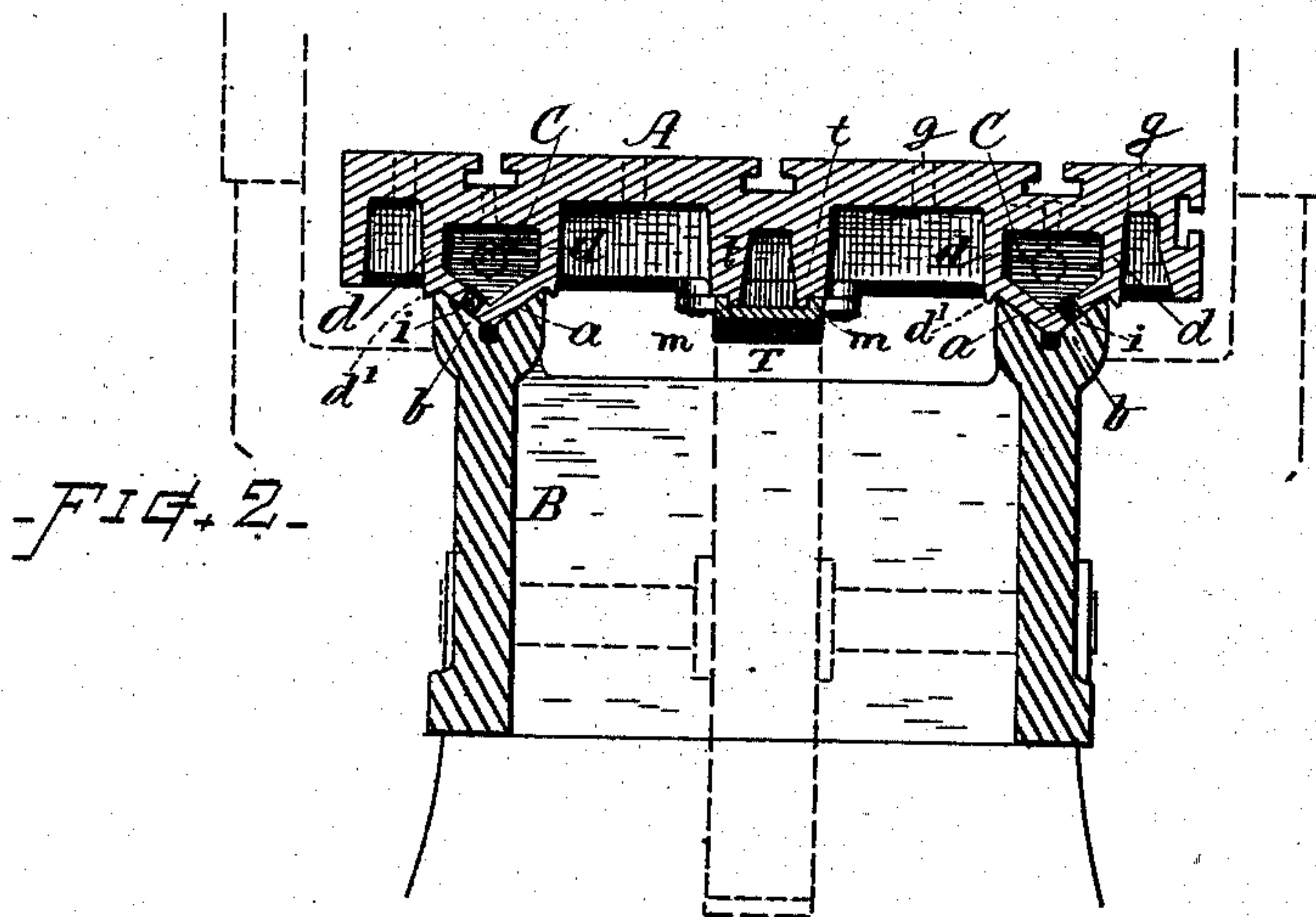
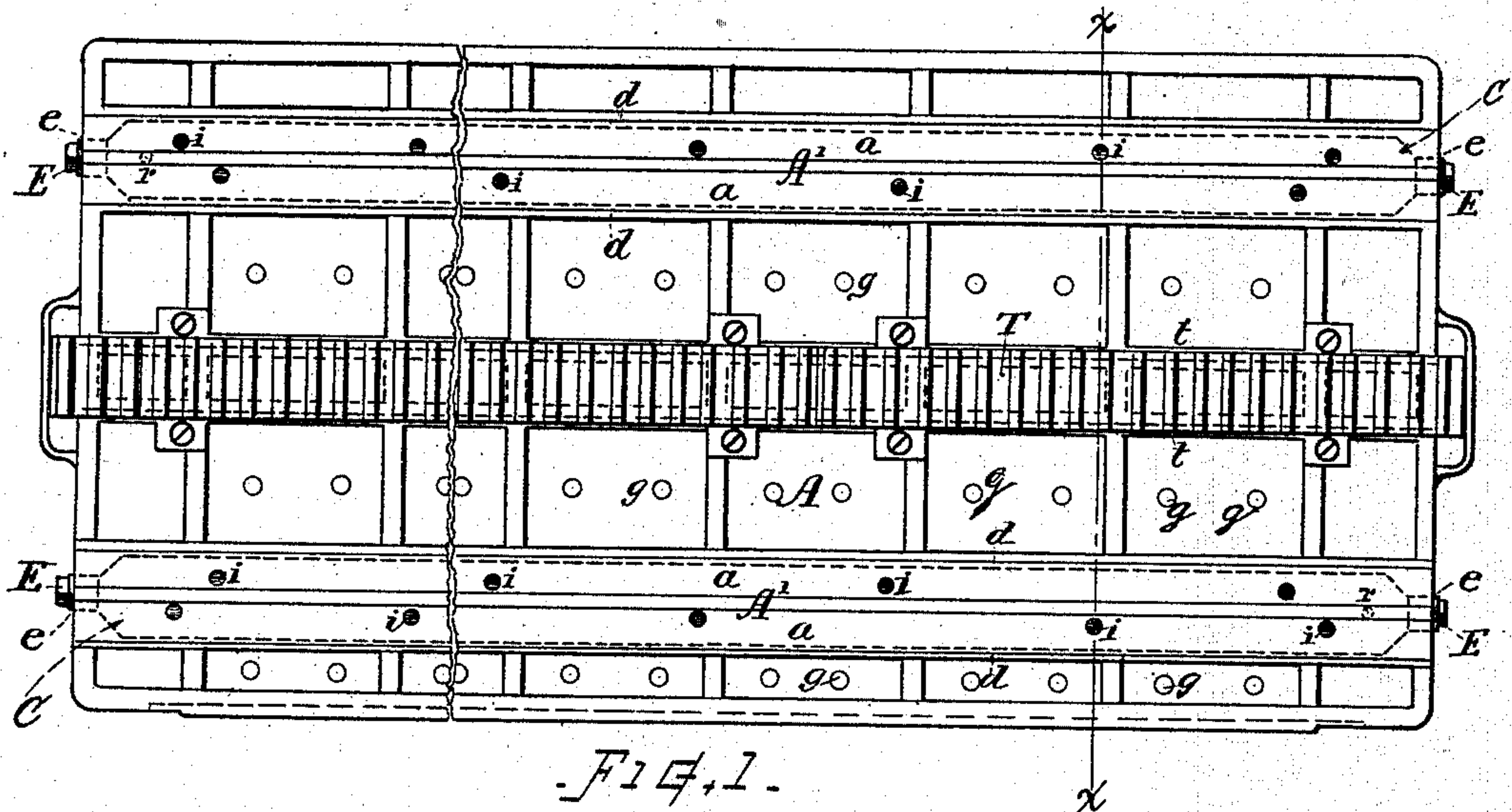
(No Model.)

H. C. PEASE.

METAL PLANING MACHINE.

No. 413,457.

Patented Oct. 22, 1889.



Witnesses.

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# UNITED STATES PATENT OFFICE.

HENRY C. PEASE, OF WORCESTER, MASSACHUSETTS.

## METAL-PLANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 413,457, dated October 22, 1889.

Application filed July 8, 1889. Serial No. 316,766. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. PEASE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Metal-Planing Machines, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

My present invention relates to the construction of the sliding table in machines for the purpose specified; and it consists in making the tracks or slide-runners in the table hollow or with internal chambers between two longitudinal webs that join the platen and runners, said chambers having openings therein, and also in providing in combination therewith means for maintaining the lubrication of the running-surfaces and guideways in the manner set forth, the objects being to render the mechanism stronger, more durable, efficient, and economical, and to avoid excess of grease and accumulation of dirt and grit between the guiding-surfaces.

In the drawings, Figure 1 is a bottom view of a planer-table constructed in accordance with my invention. Fig. 2 is a transverse section of the table at line *xx* and its supporting frame or bed, and Fig. 3 is an end view of the table.

It will be understood that parts of the planer not herein shown and specifically described can be of the ordinary well-known construction, the general operation of the mechanism being the same as is usual in machines of this class.

Referring to the drawings, A indicates the table, having formed integral therewith the longitudinal tracks or slide-runners A', with inclined bearing-surfaces *a a*, that project below the general bottom plane of the table and extend from end to end thereof at the usual positions for guiding and giving support in the operation of the mechanism.

B indicates the supporting frame or bed, of usual construction, and provided with V-shaped guideways *b b*, into which the slide-runners fit, the guiding-surface *a a* matching

the bearing-surfaces of the guideways *b*, upon which the table has reciprocating action.

In accordance with my present improvement the table is made with its tracks or slide-runners hollow, said tracks being formed with two longitudinal webs *d d*, that integrally join the projecting portion A' with the body or platen-plate along the opposite edges of the guiding-surfaces *a*, with chambers C located between said webs, and extend longitudinally within the tracks above the guiding-surfaces *a* and beneath the platen-surface, as shown. The two upright webs *d d* are disposed at the sides of the respective tracks A', and project over the heads *b* of the guideways, their lower edges being preferably made slightly overhanging or underbeveled, as at *d'*, so that they form a shield for protecting the guiding-surfaces and to ward off any dirt or soda-water (frequently used in the finishing-work on the planer) or other detrimental substances that may fall through the pin-holes *g* in the table, and thus prevent the same from lodging or working in between the bearing-surfaces at *a*. The outer lines of metal are carried directly upward from the overhanging edges *d'*, avoiding the formation of a protecting-ledge along the sides of the track, which gives a very strong and rigid structure to the table, and also causes the tracks to draw free and smooth, and obviates the necessity of side cores when casting the tables, thus greatly facilitating the manufacture. At the ends of the chambers C there are openings *e* into the interior thereof, which openings are fitted with screw-threaded stoppers E, that can be removed and inserted as desired. In the top, near the ends of the table, small holes are drilled into the chamber C from the upper side, as indicated at *r*, through which oil can be introduced to the chamber C when required, and said holes are provided with removable stoppers or screw-plugs. Along the bearing-surfaces *a*, at suitable intervals, there are formed small holes, which are plugged or filled with soft wood or other comparatively solid porous substance, as at *i*, through which oil can penetrate, thus giving a passage therefor from the chamber C to the surface *a*. When in use, a quantity of



oil is introduced into the chambers C, and the lubrication is maintained for an indefinite time in sufficient but not excessive quantity by the percolation of the oil through the porously-plugged passages at *i*.

The rack T, for moving the table, is fitted onto the central ribs *t* in the manner shown, the ribs being dressed off with shoulders *m*, over which the rack-plate is fitted to lock, so that when bolted down the rack binds together the ribs and greatly adds to the stiffness and rigidity of the table.

I claim as my invention to be herein secured by Letters Patent—

1. The within-described table for metal-planing machines, having its slide-runners or tracks made hollow, with longitudinal chambers above the guiding-surfaces and embraced between two webs that join the tracks and main plate, and provided with openings at the ends and with passages from the chamber to the bearing-surfaces, substantially as shown and described.

2. The table A, having longitudinal slide-runners or tracks *a*, constructed with chambers C and two webs *d* between the track-surfaces and platen-surface or table-top, with porously-plugged passages *i* from said cham-

bers to the guide-surfaces, the openings *e* into said chambers, provided with screw-stoppers E, and the rack T, connecting central webs *t*, substantially as shown and described.

3. In a metal-planing machine, the table having slide-runners or tracks that are hollow, with longitudinal chambers C therein above the guiding-surfaces, provided with openings at the ends and with passages from said chambers to the sliding surfaces containing plugs of porous substance, in combination with the supporting-bed B, having guideways *b*, on which said table is supported to have reciprocative sliding action, substantially as set forth.

4. The combination, with the supporting-frame B, having the guideways *b*, of the table having hollow tracks fitted to said guideways, the two side webs *d* of said tracks projecting and overhanging the edges of the guideways at *d'*, substantially as and for the purpose set forth.

Witness my hand this 1st day of July, A. D. 1889.

HENRY C. PEASE.

Witnesses:

CHAS. H. BURLEIGH,  
ELLA P. BLENUS.