

(No Model.)

H. PLANTE.

GAGE.

No. 336,742.

Patented Feb. 23, 1886.

Fig. 1.

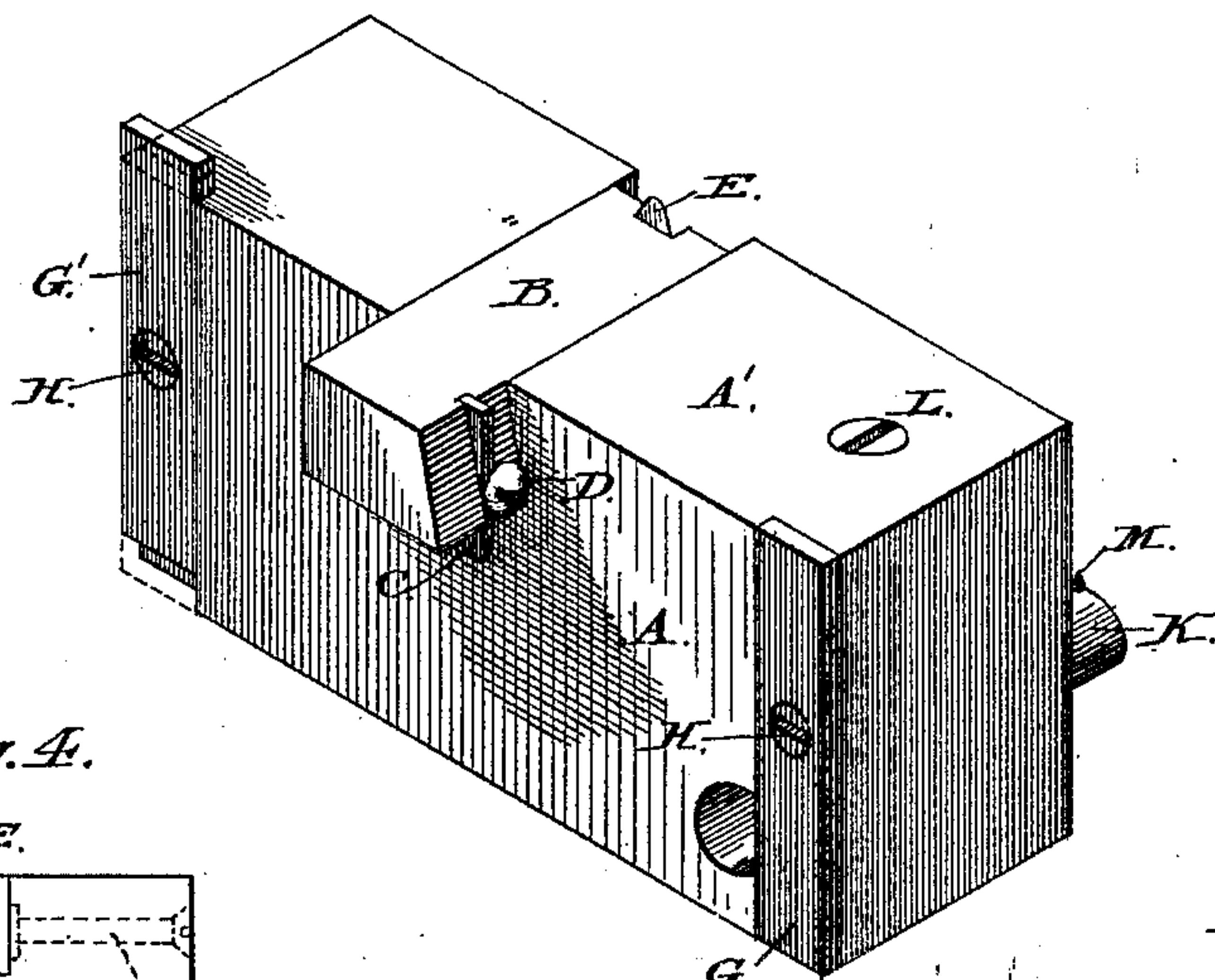


Fig. 4.

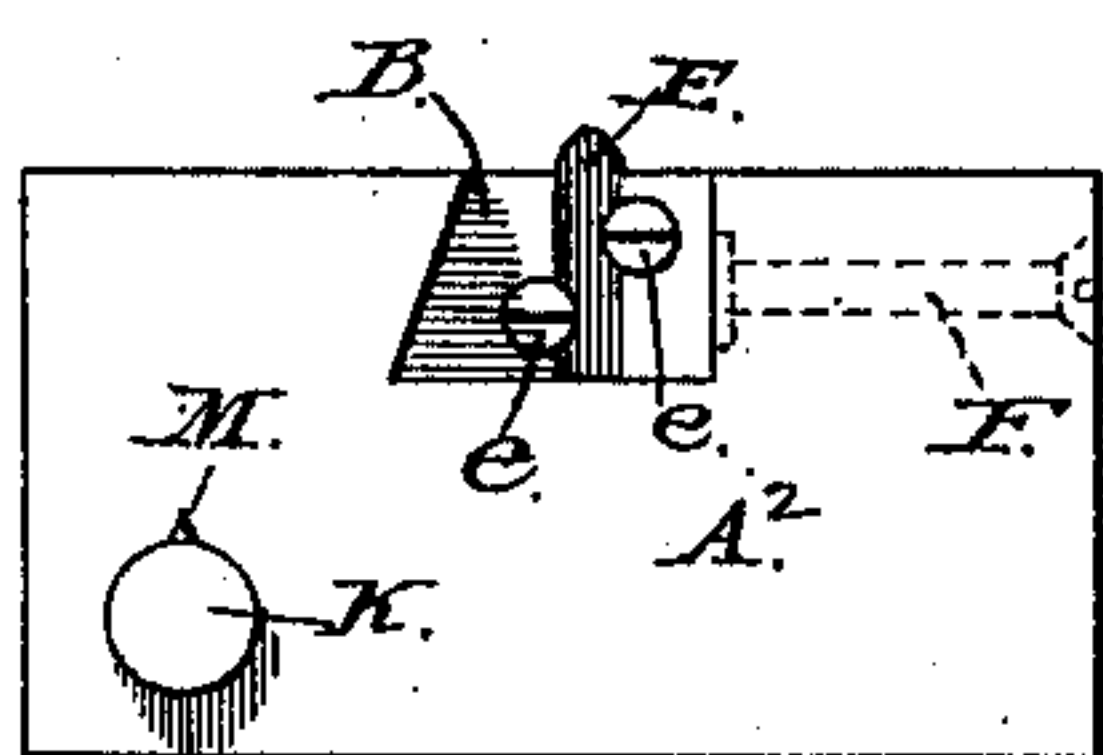


Fig. 5.

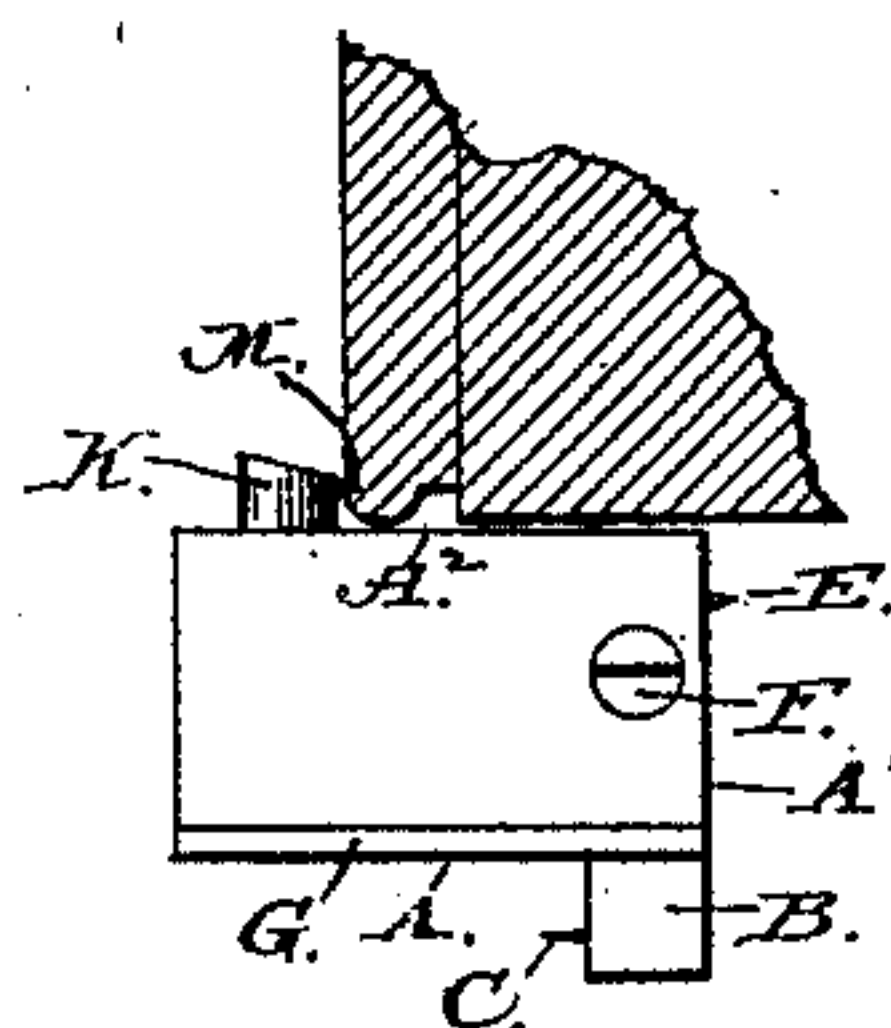


Fig. 2.

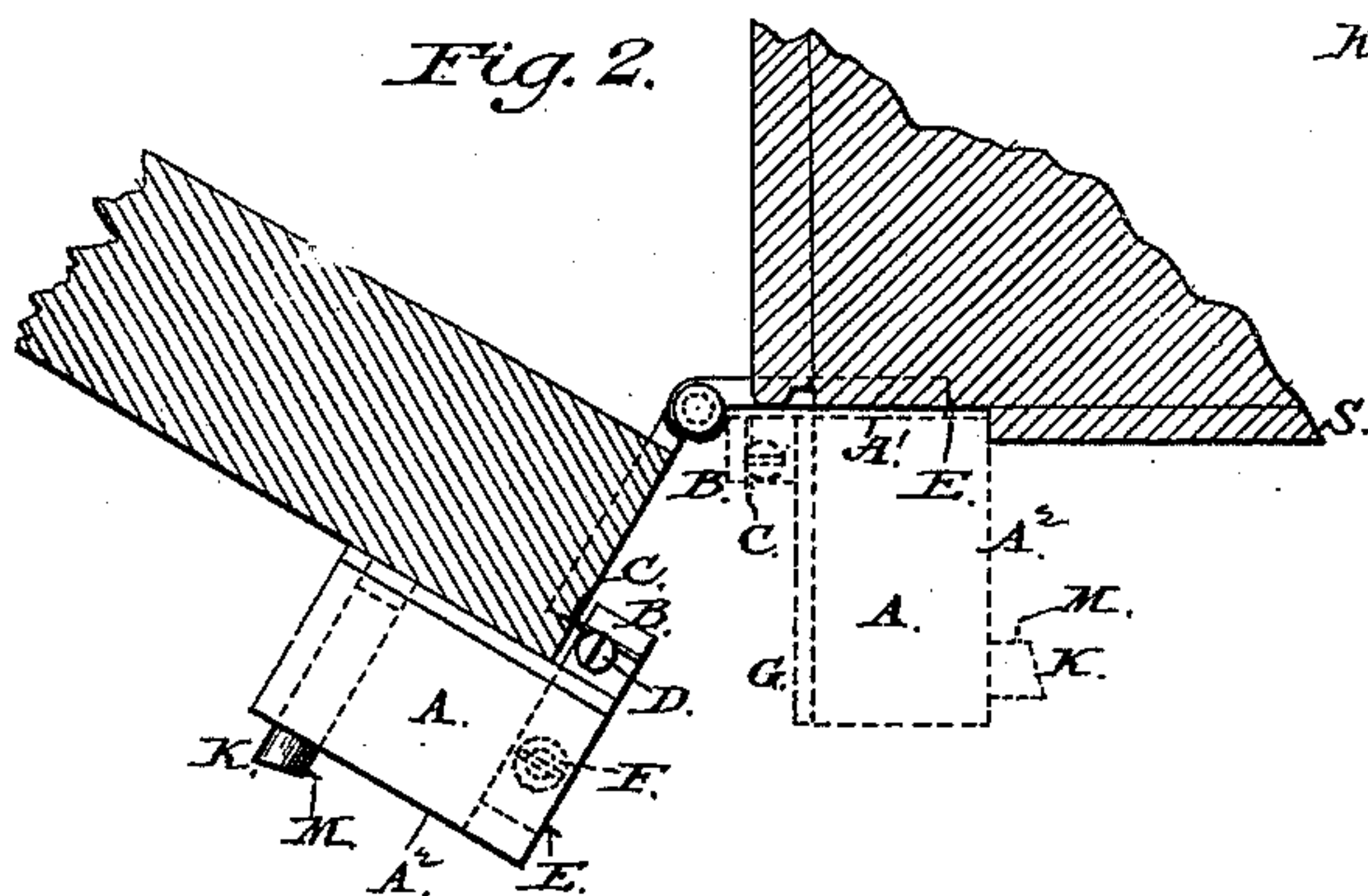
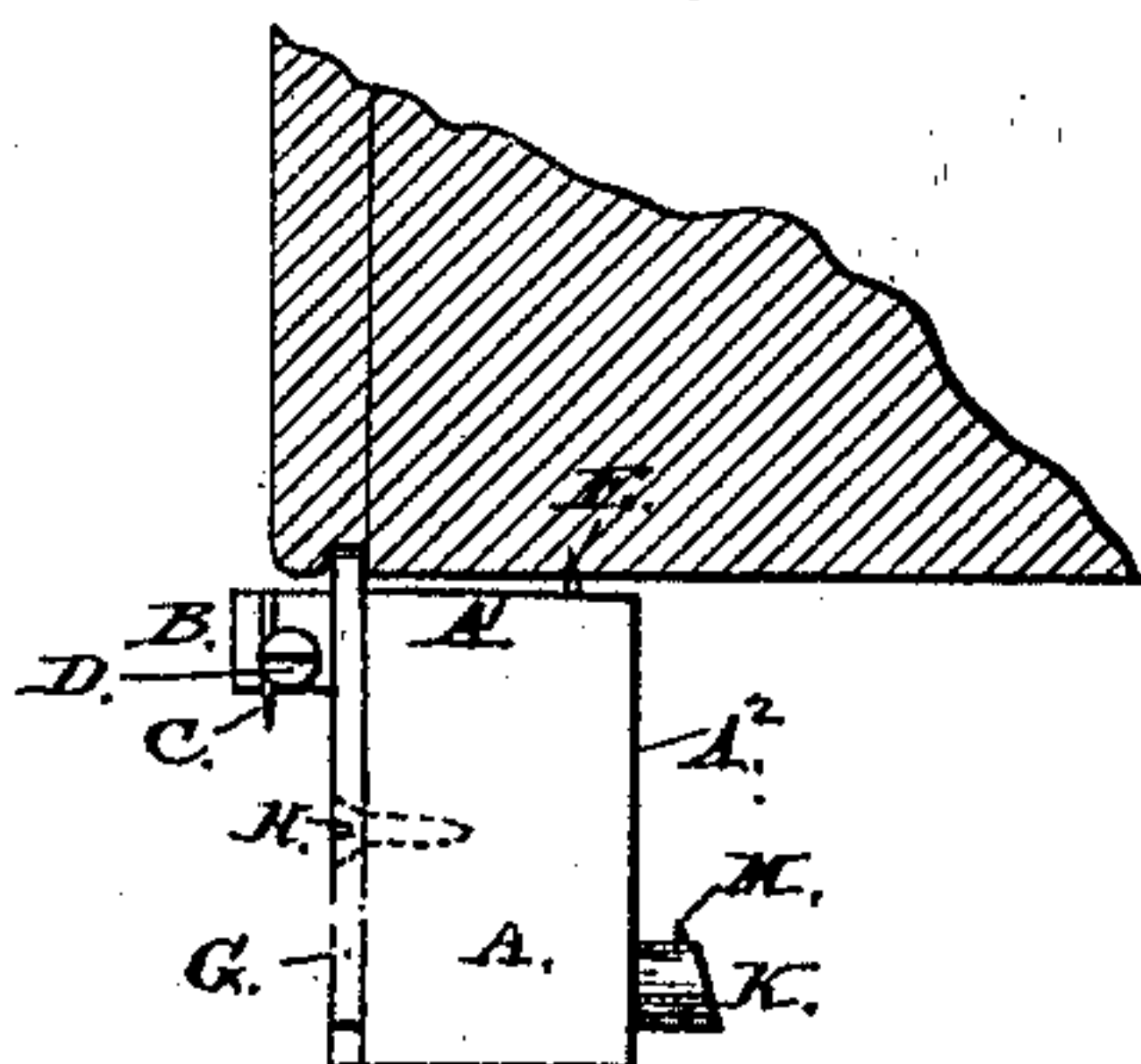


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

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GAGE.

SPECIFICATION forming part of Letters Patent No. 336,742, dated February 23, 1886.

Application filed December 16, 1885. Serial No. 185,811. (No model.)

To all whom it may concern:

Be it known that I, HENRY PLANTE, of the city, county, and State of New York, have invented a new and useful Gage-Block for use in Hanging Doors; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to a gage for laying out and marking the position of the hinges upon a door and casing, and has for its object to facilitate and expedite cutting out the recesses for the reception of the leaves of the hinge, and to insure such exactitude therein as will cause the door to close with precision when swung upon the hinges.

In the accompanying drawings, Figure 1 is a view in perspective of my improved gage-block for hanging doors; Fig. 2, a cross-section of the inner end of a door and jamb, illustrating the manner of using the gage; Fig. 3, a cross-section of a door-jamb, illustrating the application thereto of the gage when there is no inner casing on the jamb; Fig. 4, a front view, on a reduced scale, of one face of the gage-block; and Fig. 5, a cross-section of a door jamb and casing, illustrating the use of the gage in marking off thereon the thickness of the hinge.

A represents a rectangular block, which is made as near as possible mathematically true on its faces and angles, to afford accurate bearing-surfaces.

B is an adjustable gage piece fitted in a transverse recess cut in the face A' of one of the long sides of the block. One side of the recess is rectangular and the opposite side inwardly beveled in cross-section, and the adjustable gage-piece B is made to correspond in cross-section with said recess, so as to fit accurately therein, as illustrated in Figs. 1 and 4, with its outer face flush with the corresponding face, A', of the block A. The length of the gage-piece B is greater than the width of the block A, so that it will project therefrom when fitted in the recess therein, and a marking-blade, C, is fitted in the projecting end of the piece upon its beveled edge, so that its cutting-edge shall project parallel with the face of the block A below the wide face of the piece B. When adjusted,

it is made fast by means of a set-screw, D, bearing against its shank, as shown in Fig. 1.

A second marking-blade, E, is secured parallel with the blade C, in a recess cut centrally in the opposite end of the gage-block B, (see Fig. 4,) to project above the face of said piece, the cutting-edge of the blade being parallel with the adjacent face of the block A, and it is made fast by the set-screws *e e*, bearing against it, as shown in Fig. 4.

The distance between the two cutting-blades C and E is made exactly equal to the width of the longitudinal face A' of the block A, or slightly less, to admit of the required slack between the door and door-stop, so that the distance between the blade C on the projecting end of the gage-piece B, and the adjacent face of the block A will agree exactly with the distance between the opposite blade, E, and the opposite face, A', of the block, however the gage-piece B may be adjusted. The gage-piece B is made fast, when longitudinally adjusted in its seat transversely to the block A, by means of a set-screw, F, entering one end of the block A and extending therein far enough to strike the side of the gage-piece, as shown in dotted lines, Fig. 4.

At each end of the block A, on that face thereof from which the gage-piece B projects, a metallic strip, G G', is inserted, so that its outer face shall be flush with the face of the block and its ends flush with the sides of the block, as shown at G in Fig. 1. These strips are held in place, each by means of a screw, H, which is passed through the strip at a point nearer the upper face, A', of the block A, which carries the transverse gage-piece B, than to its opposite face, so that by loosening the screw H and turning the strip end for end in its seat its longer end will project beyond the upper face of the block, as shown at G' in Fig. 1.

A cylindrical gage-piece, K, is inserted in a cylindrical aperture pierced transversely through the block A, near to the lower corner thereof, as shown in Figs. 1 and 4, so as to project from the face A² thereof, opposite to that from which the gage-piece B projects. A marking-point, M, is fitted in the end of this gage-piece K, to project radially therefrom, and the gage-piece is secured, when adjusted with the point M nearer to or farther

from the face A² of the block A, as required, by means of a set-screw, L, working against it from the face of the block in which the transverse gage-piece B is inserted, as shown in Fig. 1.

In the use of this improved gage and marker the marking-blade M on the cylindrical gage-piece K is set to the thickness of the leaf of the butt-hinge, and by means thereof the depth of the recess to be cut to receive the hinge is marked off in the customary manner, both on the edge of the door and of the door casing or jamb. (See Fig. 5.) The blade C is then adjusted by moving the piece B to a distance from the adjacent face of the block A equal to the interval to be left between the outer edge of the leaf of the hinge and the edge of the door when the hinge is properly in place. The inner margin of the recess to be cut in the edge of the door to receive the hinge is then readily marked off by placing the block A against the outer face of the door, so that the blade C shall overlap the inner edge of the door, as shown in Fig. 2. The width of the recess in the door-jamb for the opposite leaf of the hinge may be then accurately marked off on the jamb by simply setting the face A' of the block against the jamb, with its free edge A² (see Fig. 1) bearing against the inner edge of the door-stop, (see dotted lines in Fig. 2,) in the angle formed thereby with the jamb, whereupon the blade E will mark precisely the line of the inner edge of the recess against which the inner edge of the leaf of the hinge must abut in order to have the door fit accurately in said angle. If the door-stop be not fitted on the jamb, then by turning the strips G G' so that they shall project beyond the face A' of the gage-block, (see at G' in Fig. 1,) and bringing said projecting ends to bear against the outer edge of the jamb, as illustrated in Fig. 3, the marking blade E will be brought, as before, to the exact line required for the inner edge of the recess to be cut to receive the leaf of the hinge. A reliable gage is thus afforded by which, with positive exactitude, the thickness of the hinge may be marked upon the edge of the door and of the door-casing, and the depth or width of the recesses for the hinges may be quickly and readily marked off, so that the door, when hung, shall swing properly with a close exact fit. By inserting one or two strips of paper under the cutting-blade E when adjusting it the utmost nicety of fit required in work with hard wood may be obtained.

I do not claim, broadly, a gage bar having at either end marking-points projecting from op-

posite sides thereof, as I am aware that such a bar has heretofore been used in combination with a slide moving thereon.

My invention involves the use of an adjustable gage-bar provided with marking-blades on opposite sides thereof in a certain definite relation, as herein specified, to the block which supports it, whereby a reversal of the position of the block will furnish an exact gage for use in properly fitting, with the utmost nicety, the hinges upon a door and its casing.

I claim as my invention—

1. The combination, in a gage for hanging doors, with a rectangular block, A, constituting the body thereof, of an adjustable gage-piece fitted to slide in a transverse groove or recess in the upper edge or face of the block, and with two parallel marking-blades, C and E, projecting from opposite faces of said gage-piece at a distance apart corresponding to the width of said upper edge or face of the block A, substantially in the manner and for the purpose herein set forth.
2. The combination, with a rectangular block, A, provided with a transversely-adjustable gage, B, carrying marking-blades C and E at either end and on opposite faces thereof, at a distance apart corresponding to the thickness of the block, of a reversible strip fitted in a recess at either end of the block A, upon the edge of that face of the block beyond which the gage B is made to project, and a screw, H, inserted through the strip at a point nearer to the edge of the block upon which the gage is fitted than to the opposite edge, substantially in the manner and for the purpose herein set forth.
3. The combination, with a rectangular block, A, provided with a transversely-adjustable gage, B, carrying marking-blades C and E at either end and on opposite faces thereof, at a distance apart corresponding to the thickness of the block, of a gage-piece, K, carrying a marking-point, M, and inserted in a transverse opening in the block, to admit of adjustment to and from its lateral face, for the purpose of marking upon the edges of the door and of the casing the thickness of the hinge, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY PLANTE.

Witnesses:

J. F. ACKER, Jr.,
A. B. MOORE.