

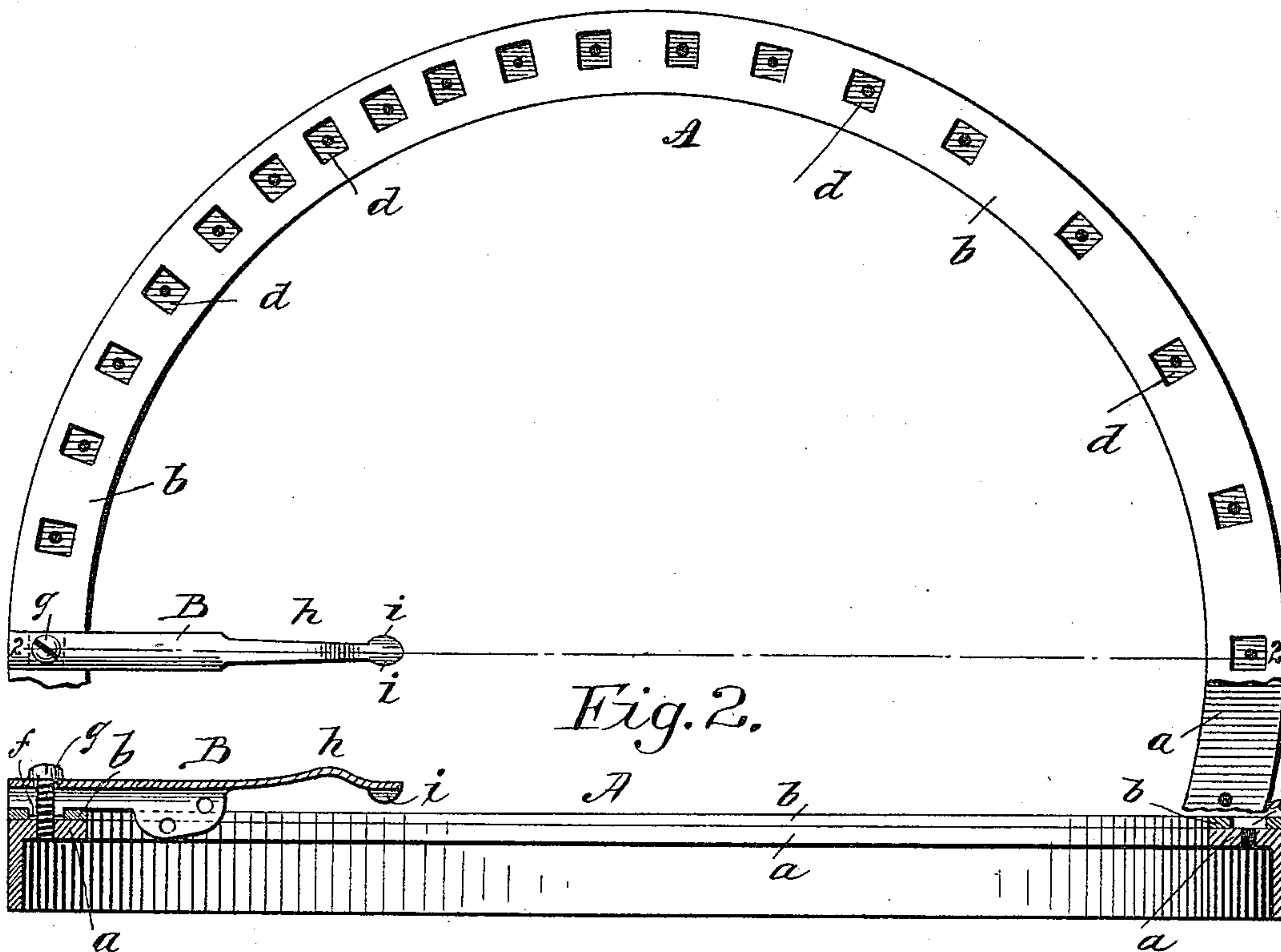
(No Model.)

M. G. MERRITT.  
TYPE WRITING MACHINE.

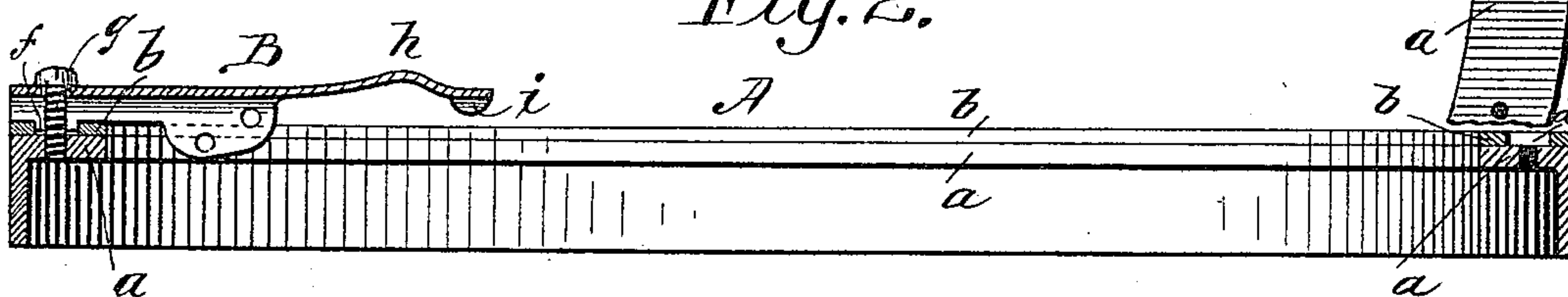
No. 440,360.

Patented Nov. 11, 1890.

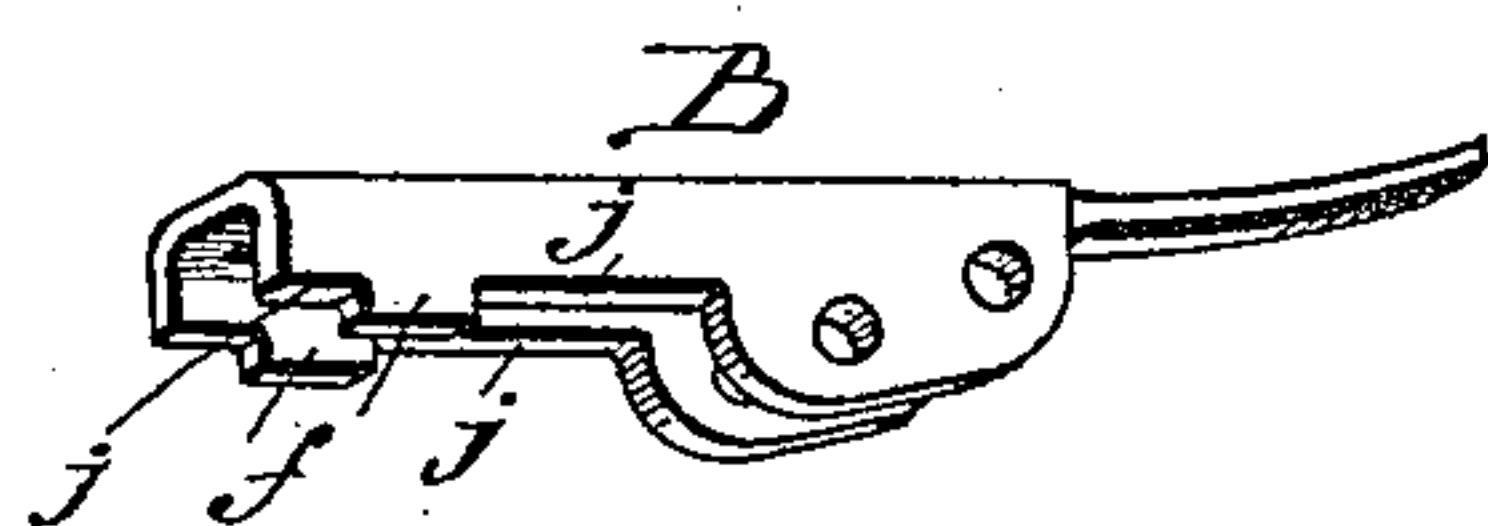
*Fig. 1.*



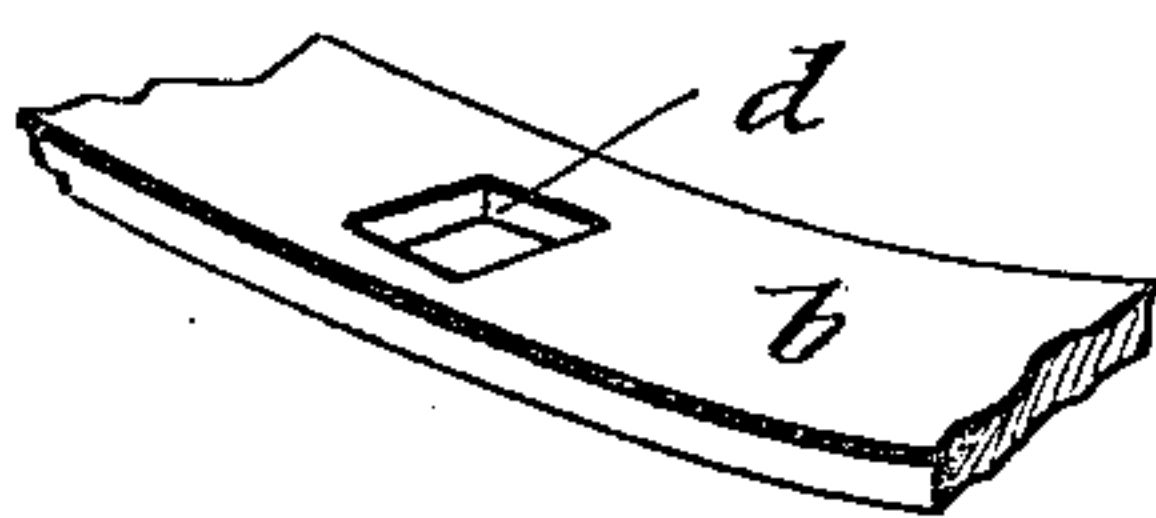
*Fig. 2.*



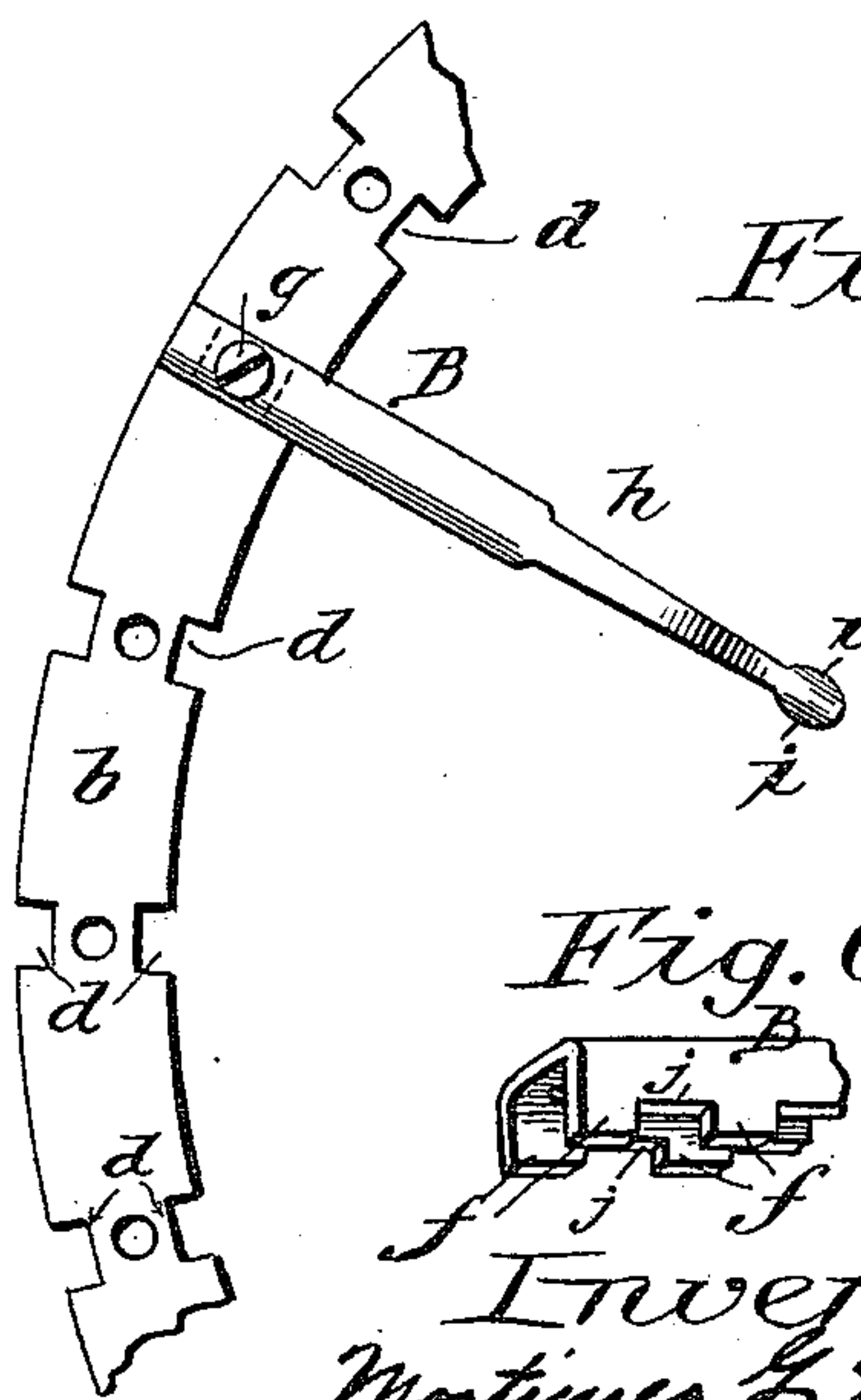
*Fig. 3.*



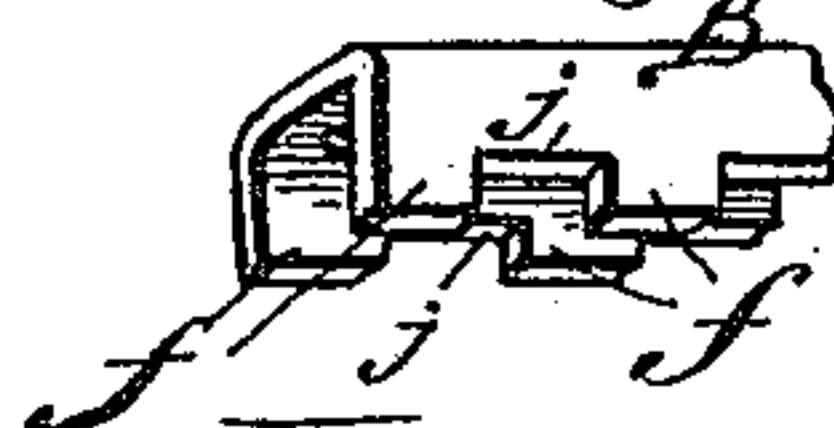
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

MORTIMER G. MERRITT, OF SPRINGFIELD, MASSACHUSETTS.

## TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 440,360, dated November 11, 1890.

Application filed June 11, 1890. Serial No. 355,005. (No model.)

*To all whom it may concern:*

Be it known that I, MORTIMER G. MERRITT, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention has for its object the provision of a support in a type-writing machine for the type-lever hangers, and of means for the attachment of the hangers to such support, all whereby the hangers are immovably held in their relations to each other and to their common support, and whereby the usual disadvantages of expansion and contraction of the metal hanger-support are overcome. Other advantages inure to the improved construction.

Reference is to be had to the accompanying drawings, in which illustrations of the improved common ring-support for the hangers are given, together with the formation of the hangers. Figure 1 is a plan view of the ring-support, showing one hanger thereon, part of the ring, however, being broken away to economize space. Fig. 2 is a vertical section on line 2 2, Fig. 1. Fig. 3 is a perspective view of one type-lever hanger, and Fig. 4 is a perspective view of a portion of a sub-ring forming part of the ring-support. Figs. 5 and 6 are views illustrating a slightly-modified formation of the ring and hanger.

The upper hanger-supporting ring A of the type-writing machine is formed of two ring-sections *a* and *b*, the former being the main ring, and usually formed of cast-iron, and the latter consisting of a flat steel-plate ring or a ring of other suitable thin metal laid on the top of the ring *a*. The ring *b* has a series of seats *d* for the type-hangers B. Each seat, so far as said ring *b* is concerned, consists of a mortise, perforation, or recess extending through the ring, on the edges of which downwardly-extended projections *f* of the hangers rest. The bottoms of which projections, however, do not extend quite to a rest on the top of the ring *a*. Each hanger is provided with a screw-hole a little larger than its screw *g*. The screw passes through that hole and freely through the perforation in the sheet-metal ring and enters with a

screw-engagement the cast-iron ring, and thereby binds the hanger to the two rings. The hanger, as shown, consists of a strip of thin metal bent longitudinally into a U shape, the rectangular extensions on the opposite borders of the blank conducing to form, when the hanger is bent into shape, the seat-engaging projection *f*, consisting of two members. The innermost extension *h* of the hanger, as shown in Figs. 1, 2, and 5, serves by the lips *i i*, as guiding means to align the type-levers centrally when swung up to effect the printing. This feature, however, forms no part of the present invention.

In Figs. 5 and 6 the ring *b* is shown as provided with rectangular recesses *d*, which extend from the inner and outer edges thereof, the hangers being provided with a double series of projections *f f* to fit said inner and outer recesses, the under edge portions *j* of the hanger sides between said projections in this arrangement resting on the top of the plate *a*. In the arrangement illustrated in Figs. 1, 2, 3, and 4 the under edge portion *j* of the hanger sides, which rest firmly on the top plate *b*, are to front and rear of the projections *f f*.

Practical construction of the ring, as described, has demonstrated that forming such ring A of the two ring-sections, as described, in the upper *b* of which is the series of seats or sockets, each to receive an extended bearing on its edges of the projection *f* of the hanger, overcomes disadvantages heretofore experienced, where, as heretofore, the hangers have been secured on a single ring. The positions relative to the center point to which they all converge have been variable, so that the type on the type-levers, which are pivoted in the hangers, have not always been presented against the platen for true alignment. As at present mounted, the type-bars when operated present at all times and under all conditions their type-face in practically perfect alignment. It is a simple and easy matter to produce the apertured ring *b* by stamping or "punching out," it of course being clear that the production of a cast-metal ring with apertures therein which have sharply-defined bearing-edges is practically an inexpedient matter.

What I claim as my invention is—

A ring-support consisting of two separate rings *a* and *b*, the one overlying the other and the upper one provided with apertures through its thickness, combined with type-  
5 hangers provided with downwardly-extended projections *f*, which are externally adapted to fit the borders of said apertures and which have a vertical projection less than the thick-

ness of said upper ring, and the confining-screws passing loosely through the upper ring to and for an engagement into the lower ring, substantially as and for the purpose described.

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Witnesses:

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