

(No Model.)

E. WAREHAM & W. F. DOLL.  
RING GAGE.

No. 438,453.

Patented Oct. 14, 1890.

Fig. 3.

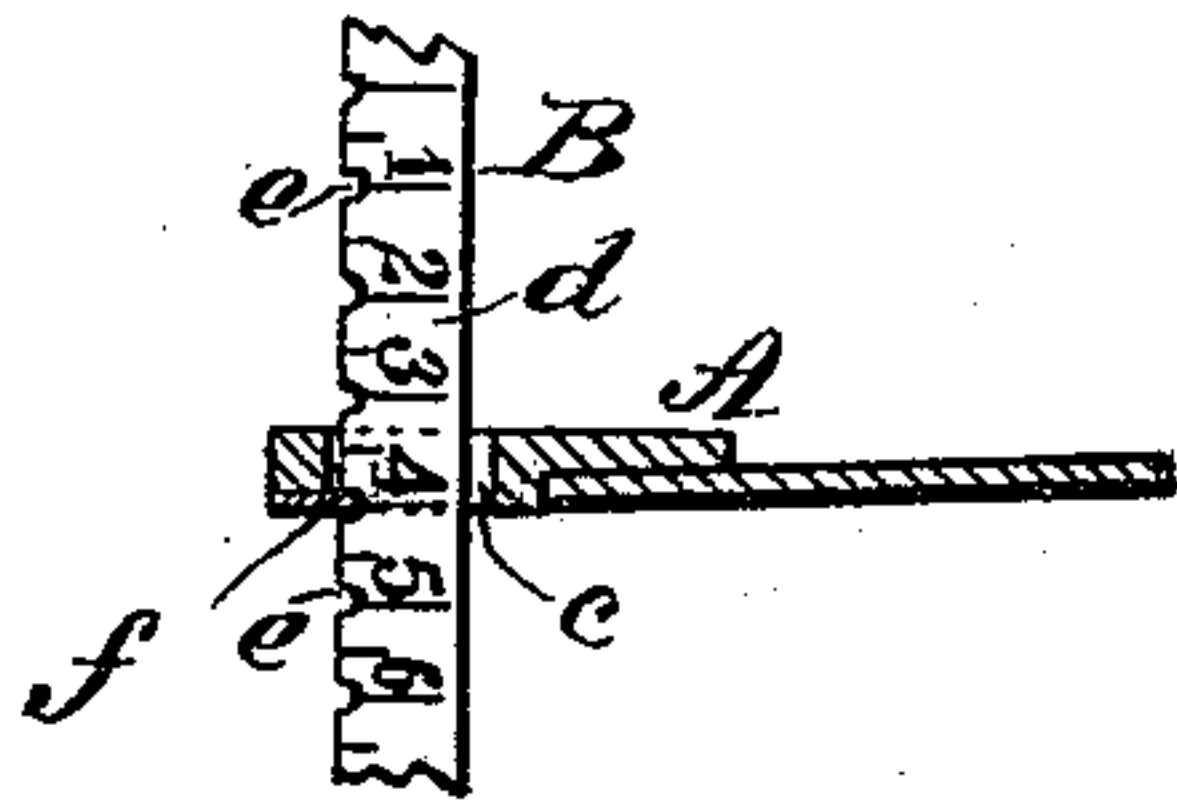


Fig. 1.

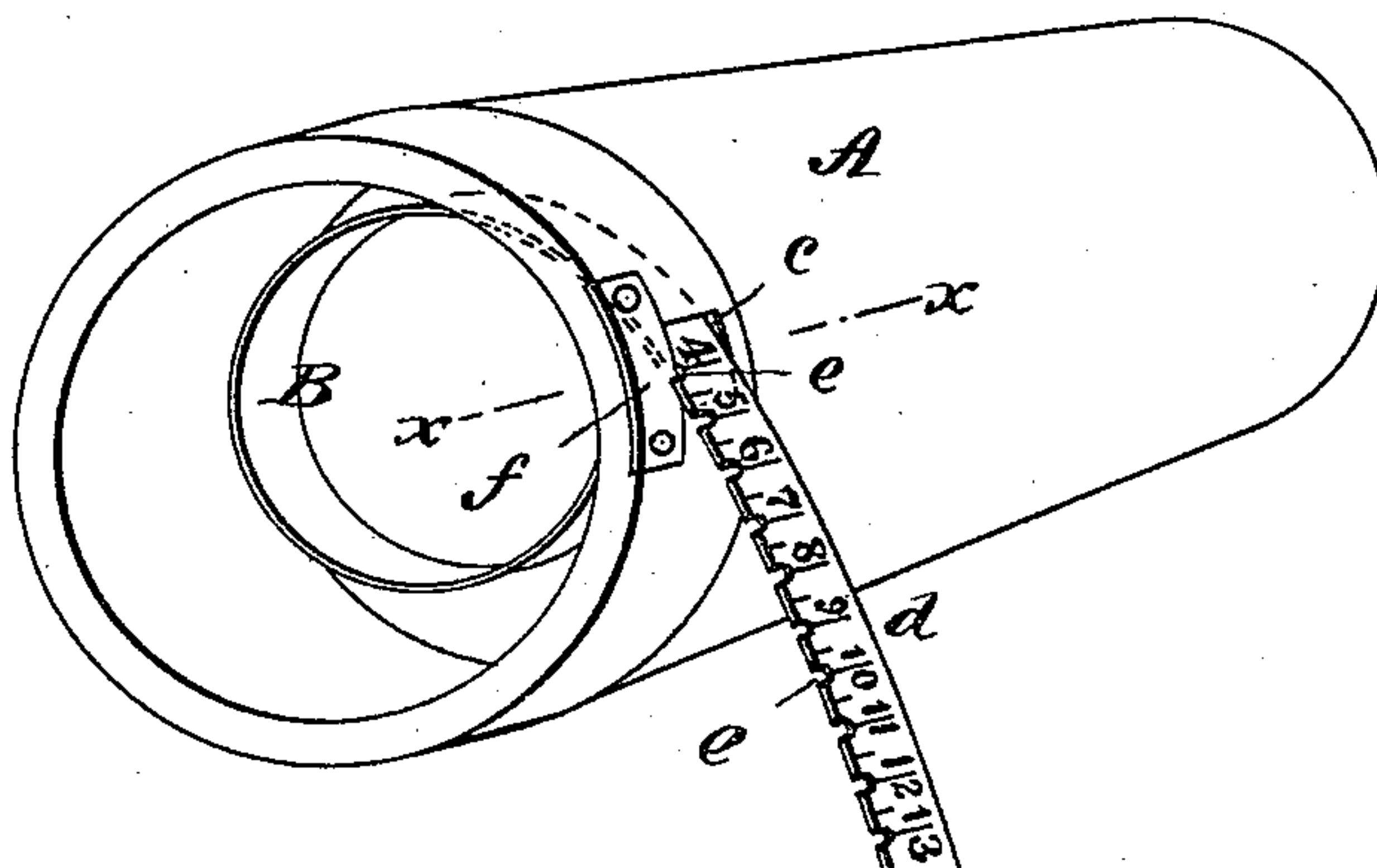
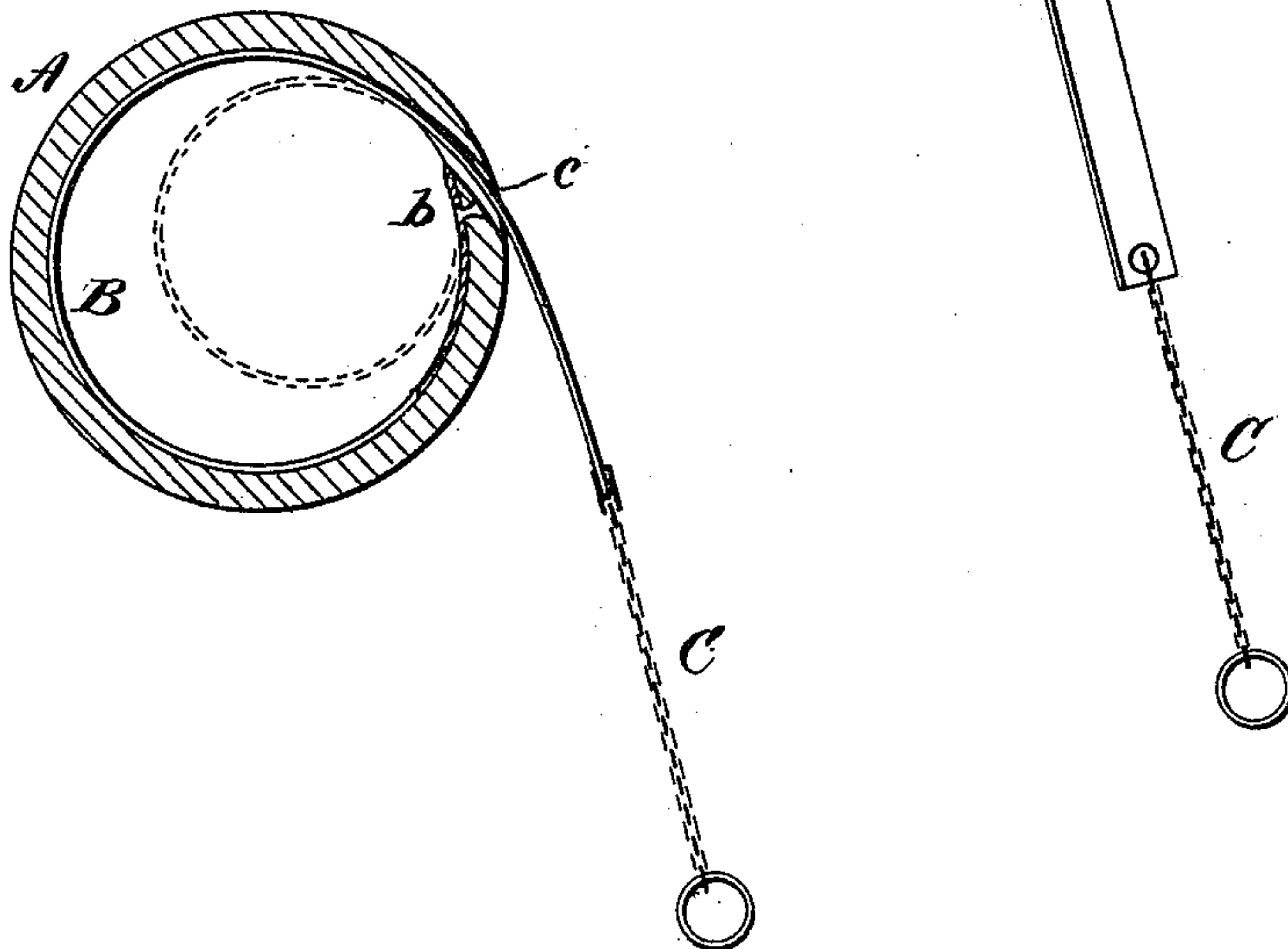


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ETHELBERT WAREHAM AND WILLIAM FREDERICK DOLL, OF WINNIPEG,  
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## RING-GAGE.

SPECIFICATION forming part of Letters Patent No. 438,453, dated October 14, 1890.

Application filed July 3, 1890. Serial No. 357,672. (No model.)

*To all whom it may concern:*

Be it known that we, ETHELBERT WAREHAM and WILLIAM FREDERICK DOLL, both of Winnipeg, in the Province of Manitoba and Dominion of Canada, have invented a new and Improved Ring-Gage, of which the following is a full, clear, and exact description.

This invention relates to adjustable gages or measures for use by jewelers and others for ascertaining the size of fingers when being fitted with rings, whereby much time is saved and a much more accurate measurement effected than by using independent and non-adjustable ring-measures of different sizes until one of the right size is found. These adjustable ring and other like gages have been variously constructed; and our invention consists in an adjustable ring-gage of simple and novel construction, substantially as hereinafter described, and more particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a view in perspective of an adjustable ring-gage embodying our invention; Fig. 2, a transverse section thereof, and Fig. 3 a section on the line  $x x$  in Fig. 1.

A indicates a hollow drum or thimble like case made of metal or other suitable material and preferably of tapering form, of convenient size to be held by the hand, but of larger transverse dimensions than is absolutely necessary to fit over or receive within it the largest-sized finger.

B is a spring tape-like measure, which may be made of a piece of watch-spring metal and should be of sufficient length to more than coil around the largest finger to be measured, and which may have attached to its one end a pull-chain C. This spring tape-measure is riveted or otherwise fastened at its one end  $b$  to the inside of the case A, near, say, the largest end of the latter, and in its normal state forms a coil or ring fitting, or nearly so, the interior of the case, while the other end of said spring-measure passes out through a slot  $c$  in the case adjacent to the fast end of

the measure. Said spring-measure has a scale  $d$  on its outer side for a portion of its length, the graduations of which correspond with the standard of ring sizes in use among dealers and manufacturers of finger-rings, and its one edge is provided with a series of notches  $e$  opposite said graduations, adapted, by slightly pulling the measure sidewise, to engage with a stop or plate  $f$  on the outside of the case to hold the spring-measure at any one of the graduations to which it may be adjusted by drawing its free-end portion out of the case.

In the application of the ring-gage to a finger to be measured the finger is placed in the case A and through the coiled portion of the spring-measure B to the joint or place at which the finger is to be gaged, when by pulling on the chain C the coiled portion of the spring-measure is contracted to form a smaller cylindrical figure, as shown by full lines in Fig. 1 and by dotted lines in Fig. 2, and to close around the finger, the size of which will be indicated on the scale  $d$  by the extent to which the latter is drawn out of the case, when the spring-measure may be locked with the case by one of the notches  $e$ , according to the draft made upon the measure being made to engage with the plate or slot  $f$ . The ring-gage thus indicating the size of the finger measured by it may then be removed from the finger and a ring corresponding in size with that of the finger and matching with the particular numbered gage-mark indicated on the spring-measure may be furnished, after which the spring-measure is slightly shifted to one side to disengage it from the stop or plate, when it will resume by its elasticity its normal condition, as shown by full lines in Fig. 2, ready for use again when required.

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

1. In a ring-gage, the combination of the hollow drum or thimble like case having an opening or slot in its peripheral portion and the graduated spring tape-like measure secured at its one end to said case and passing out at its other end through the slot in proximity to the fast end of the measure, the whole



being adapted to receive the finger within the case and through the coiled portion of the measure in the same, substantially as specified.

2. In a ring-gage, the combination of the  
5 hollow drum or thimble like case A, having a slot *c* in its peripheral portion, the graduated spring tape-like measure B, having a scale *d* on its surface and notches *e* in its edge, secured at its one end to said case and passing  
10 out at its other end through the slot *c* in

proximity to the fast end of the measure, and the stop or plate *f*, with which the notched spring-measure is adapted to engage, essentially as shown and described.

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Witnesses:

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