

(No Model.)

A. E. McDONALD.

HAT MEASURE.

No. 398,340.

Patented Feb. 19, 1889.

Fig. 1.

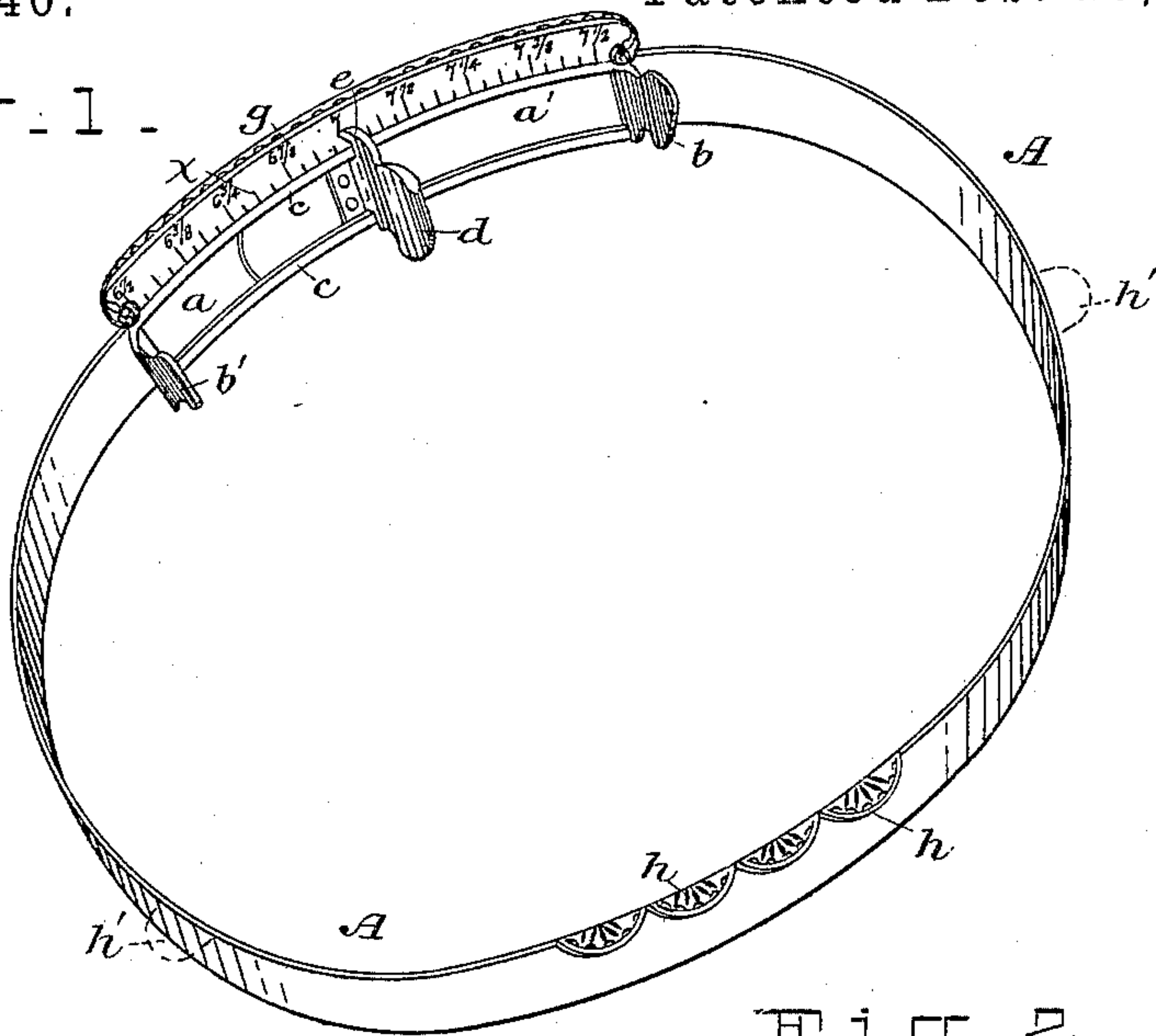


Fig. 2.

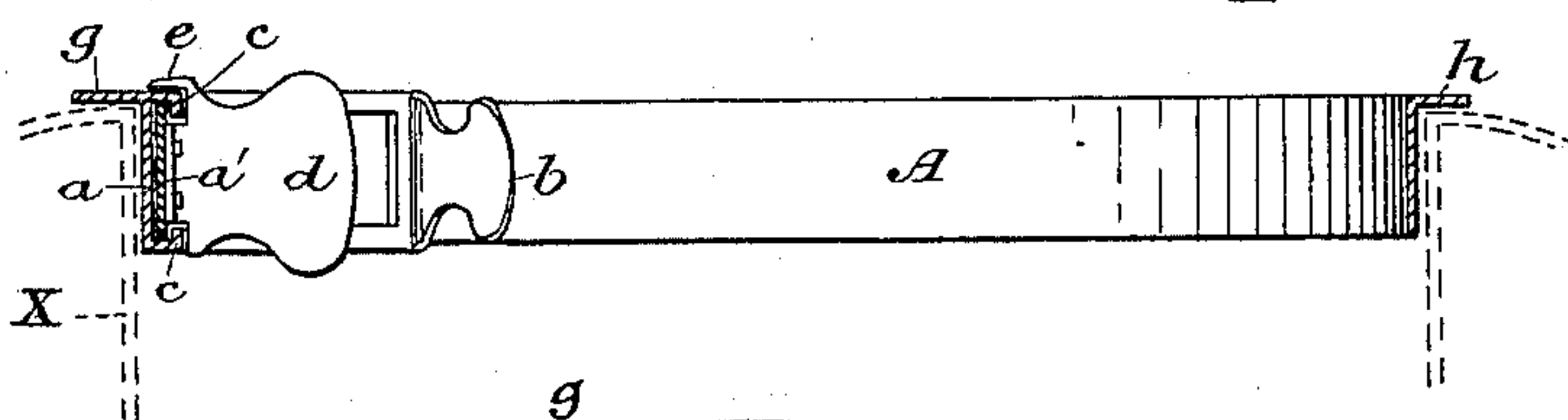
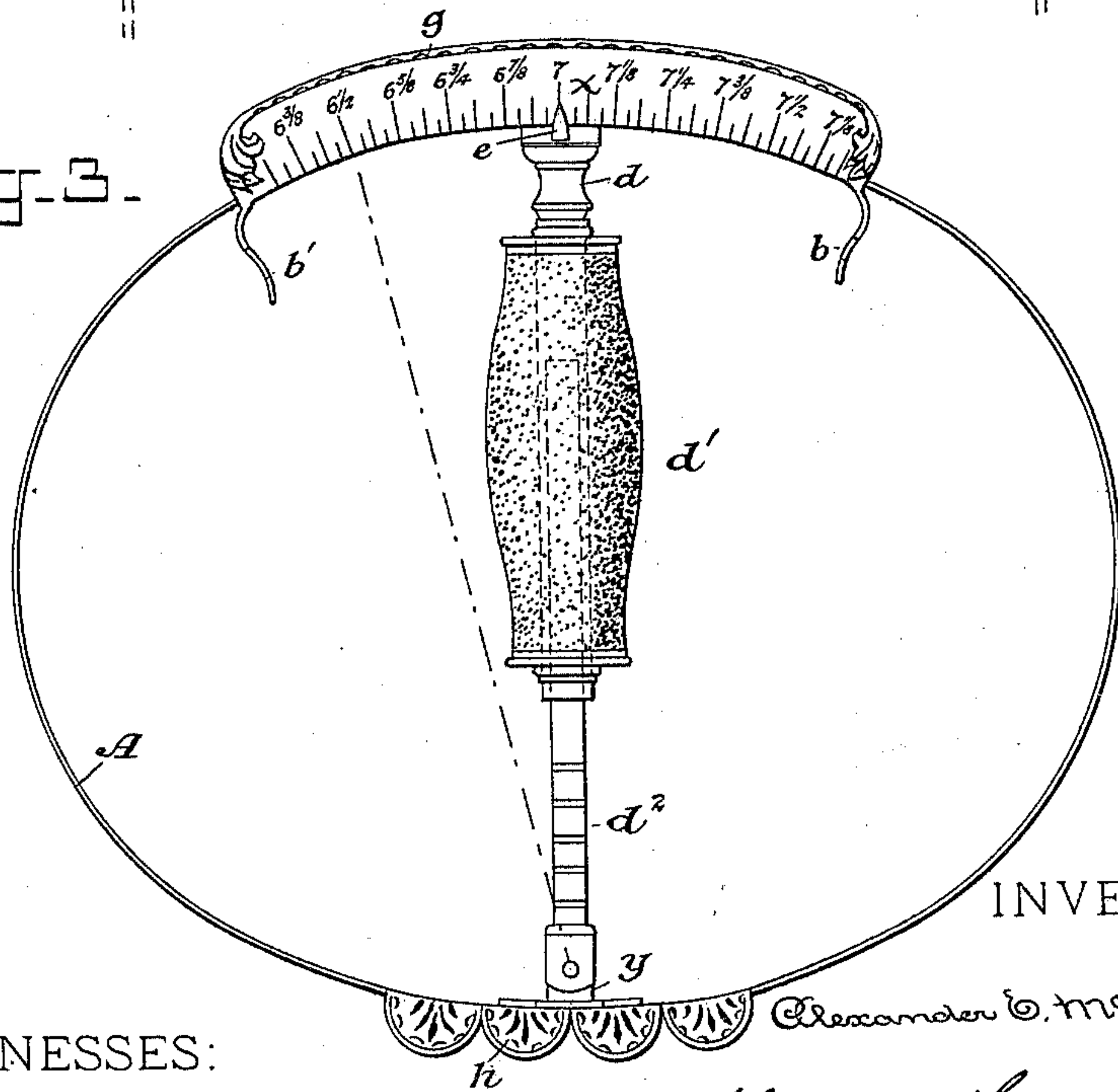


Fig. 3.



INVENTOR:

Alexander E. McDonald

WITNESSES:

J. B. Bolton
J. A. Caplinger

By Henry Connel
Attorney.

UNITED STATES PATENT OFFICE.

ALEXANDER E. McDONALD, OF BROOKLYN, NEW YORK.

HAT-MEASURE.

SPECIFICATION forming part of Letters Patent No. 398,340, dated February 19, 1889.

Application filed July 25, 1888. Serial No. 280,985. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER E. McDONALD, a citizen of the United States, and a resident of Brooklyn, Kings county, New York, have invented certain Improvements in Hat-Measures or Measuring Devices, of which the following is a specification.

My invention relates to band-like devices for taking the measures of hats. These as ordinarily constructed consist of a simple band or strip of metal bent to form a loop or hoop the free ends of which overlap and slide on each other when the loop that fits in the hat is contracted or expanded. The graduations that indicate the "size" of the hat are usually marked on the inner face of the band.

My measure or measuring device has several novel features or characteristics, namely: The expansible loop has projecting flanges, usually oppositely arranged, which rest on the margin of the opening in the hat and serve to keep the loop from slipping down into the hat while it is being adjusted to fit the latter. The graduations which indicate the size are marked on one of these flanges, and are thus in position to be seen by the user while the measure is in place in the hat. The band is provided with thumb-pieces whereby the expansion and contraction of the band when in place in the hat may be conveniently effected.

My invention will be fully described hereinafter, and its novel features carefully defined in the claims.

In the drawings which serve to illustrate my invention, Figure 1 is a perspective view of a hat-measure or measuring device embodying my invention, and Fig. 2 is a transverse section of the measure shown in place in a hat. Fig. 3 is a plan view of a hat-measure embodying my invention in a form differing slightly from that shown in Figs. 1 and 2.

I will first describe the construction illustrated in the first two figures of the drawings.

A represents a band of some resilient material suitable for the purpose, such as steel of the kind used in tape measures, or spring-brass. On one end, *a*, of this band are secured two thumb-pieces, *b b'*, projecting inward. These thumb-pieces are attached to and may be formed integrally with keepers *c*, in which plays the other end, *a'*, of the

band A. On this free or moving end *a'* of the band is an inwardly-projecting thumb-piece, *d*, arranged between thumb-pieces *b b'*. The thumb-piece *d* is provided with a pointer or index, *e*, which plays over numbered graduation *x* on an outwardly-projecting flange or lip, *g*, on the end *a* of the band, and formed integrally, by preference, with the thumb-pieces *b b'* and keepers *c c'*. These keepers form grooves in which the edges of the end *a'* of the band are housed and in which said end plays. When the measure is placed in the hat, as represented in Fig. 2, (wherein X represents a part of the hat,) the flange or lip *g* rests on the hat and prevents the band from slipping down into the hat thereat and retains it at the point where the measurement is to be taken. On the opposite side of the loop the band has another flange or lip, *h*, (one or more,) which rests on the hat at the other side of the opening and holds the band in place at that point. The flange *g* is quite long, and provides an extended bearing on the hat, and there are, in fact, several flanges or lips *h*, in order to afford thereat, also, a broad bearing on the hat. It is inadmissible to make the flange *h* very extended in the direction of the length of the band, as this would interfere materially with the flexure of the band. I accomplish the desired result by first forming on the band an elongated flange and then dividing this flange into a number of lesser flanges by notching it into or nearly into the band.

The graduations on the flange *g* are of course spaced and numbered in such a manner that when the loop is expanded within the hat so as to snugly fit the latter the pointer *e* will stand at the number that indicates the size of the hat being measured.

The expansion of the loop is effected by grasping the thumb-pieces *d* and *b* between the thumb and fingers and moving the former toward the latter, and the contraction is effected by moving the thumb-piece *d* toward thumb-piece *b'* in the same manner.

The band A may be provided with outwardly-projecting flanges at the points *h' h'* in Fig. 1, where the flanges are indicated by dotted lines, and these may be employed in addition to or in lieu of the flange *h*. The

purpose of these outwardly-projecting flanges to prevent the band from slipping down onto the hat, and they may be placed in any position best suited to accomplish this result.

The construction represented in Fig. 3 differs from that already described only in respect of the thumb-piece *d*. In Fig. 3 this thumb-piece or hand-piece is in the nature of a telescopic bar which extends diametrically across the loop and is hinged to the band at *y* on the opposite side. The bar has or may have an enlarged body, *d'*, adapted to be grasped by the hand, and in order to accommodate the length of the bar to the expansion and contraction of the band the part *d*² thereof is made to slide telescopically within the part *d'*. The operation of this bar is substantially the same as that of the thumb-piece *d* of Fig. 1; but it provides a convenient handle to grasp with the hand.

Having thus described my invention, I claim—

1. A hoop-like hat-measure or measuring device with two inwardly-projecting thumb-pieces, *b* and *b'*, on one of its ends and a thumb-piece, *d* on its other end, arranged between said thumb-pieces *b* and *b'*, whereby the said measure may be conveniently expanded and contracted.

2. A hat-measure consisting of a band, as *A*, of suitable resilient material, having over-

lapping ends and suitable keepers, an outwardly-projecting flange, as *g*, on the band, having on its upper face numbered graduations *x*, and a pointer, as *e*, carried by one end of said band and arranged to play over the margin of the flange *g* when the loop of the band is expanded and contracted, substantially as set forth.

3. A hat-measure consisting of a resilient band, as *A*, having overlapping ends, one of which is embraced by keepers on the other, and said band provided with outwardly-projecting flanges *g* and *h*, the former bearing numbered graduations, and with a pointer, *e*, and thumb-pieces *d* *b* *b'*, substantially as set forth.

4. A hat-measure consisting of a resilient band having overlapping ends, one of which is embraced by keepers on the other, said band being provided with inwardly-projecting thumb-pieces for contracting and expanding the band, one of said thumb-pieces being constructed of two telescoping parts and hinged at its end to the band, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ALEXANDER E. McDONALD

Witnesses:

HENRY CONNETT,

J. D. CAPLINGER.