(No Model.)

J. BURTHOUL.

HAT SWEAT.

No. 359,772. Patented Mar. 22, 1887.

Fig. 1.

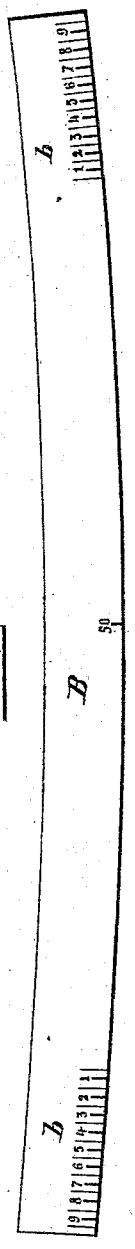


Fig. 1a.

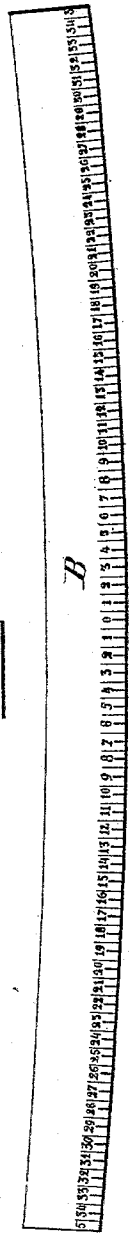


Fig. 4.

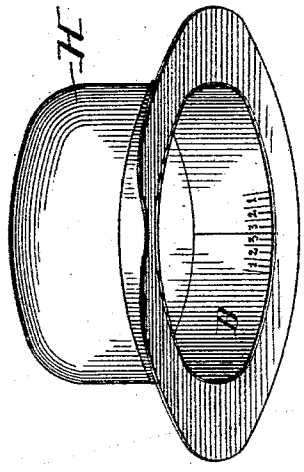


Fig. 2.

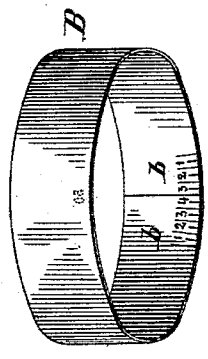
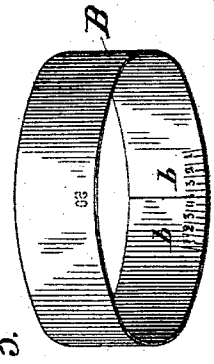


Fig. 3.



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UNITED STATES PATENT OFFICE.

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HAT-SWEAT.

SPECIFICATION forming part of Letters Patent No. 359,772, dated March 22, 1887.

Application filed December 7, 1886. Serial No. 220,859. (No model.) Patented in Belgium July 27, 1886, No. 74,008; in France July 30, 1886, No. 164,916; in England August 3, 1886, No. 9,950, and in Italy October 19, 1886, No. 8,373.

To all whom it may concern:

Be it known that I, JOSEPH BURTHOUL, a citizen of the Kingdom of Belgium, residing at Brussels, Belgium, have invented certain new and useful Improvements in Hat-Leathers or Sweat-Bands, (for which Letters Patent have been granted in Belgium, No. 74,008, dated July 27, 1886; in England, No. 9,950, dated August 3, 1886; in Italy, No. 8,373, dated October 19, 1886, and in France, No. 164,916, dated July 30, 1886;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Referring to the drawings, Figures 1 and 1ª show my improved sweat-band for hats in elevation. Figs. 2 and 3 are perspective views thereof ready for applying to a hat, and Fig. 4 shows the sweat-band applied to a hat.

In the manufacture of hats, each hat, when completed, is usually measured and the size thereof indicated by a label applied to the sweat-band, or when a hat is to be made to order the head has to be measured in order to secure a good fit. These measurements are made by specially-constructed apparatus, and necessitate care and time,

The object of this invention is to provide means whereby this labor may be dispensed with and the size of the hat indicated by the sweat-band when fitted therein and secured thereto, or when such a band is placed around the head and then cut to length for the purpose of ascertaining the size of the hat to be made.

To these ends the invention consists in the mode of and means for attaining the results aimed at and above referred to, substantially as hereinafter fully described and claimed.

Any desired standard of measure may, of course, be employed. In the drawings I have employed the centimeter standard, and shall confine myself thereto in the description of the invention. The sweat-bands are made of such length as to fit any size hat usually made. Supposing, now, that this standard size of sweat-band B is seventy centimeters long, as in Fig. 1, I apply to each end thereof, near one edge, lineal-measure indices *b*, equal to ten centimeters, commencing at said ends with the 0 or 10, and at the longitudinal center of the band I apply a lineal-measure index indicating the length of the band minus the sum of the indices at the ends thereof.

The sweat-band shown in Fig. 1 is seventy centimeters long; hence the center index, *c*, will be 50, since $10+10+50=70$.

Of course any desired standard of length may be employed and any desired number of lineal indices applied at the ends, the result being the same. As an illustration, supposing the standard length to be eighty centimeters and the indices at the ends to indicate twenty centimeters, the central index, *c*, will in this case be 40, since $20+20+40=80$, and so on.

It is obvious that if this band is fitted into a hat of such size that the ends of the band will exactly meet, the indices will indicate that the interior circumference of the band is seventy centimeters, since $10+10+50=70$. If, however, the band is fitted into a hat of smaller size, the ends thereof will overlap, and by cutting the overlapping ends so that the edges of the cut band will exactly meet, the band will again indicate the size. For instance, as shown in Fig. 2, a length of six centimeters has been cut off from one end of the band and a length of seven centimeters from the other end, so that the size of the hat, as indicated by the band, will be $4+3+50=57$ centimeters. If the centimeter-scale is subdivided into fractions, as shown, we obtain units and fractions.

From an inspection of Fig. 3 it will be seen that a length of six centimeters was cut off from one end of the band and a length of six and one-half centimeters from the other end, the band indicating a size of $4+3\frac{1}{2}+50=57\frac{1}{2}$ centimeters.

If the standard length of the sweat-bands used by a manufacturer and the lineal-measure indices at the ends of the band are known, it will be sufficient to ascertain the size of the hat—*i.e.*, the inner circumference of the band—to deduct from the total length of the band the length cut therefrom. For instance, if the standard band has seventy centimeters and the end indices ten centimeters each, if five

centimeters be cut off from each end it will be sufficient to deduct the length cut off from the total length of the band, since 70—5+5=60, or, again, 5+5+50=60. It will be obvious that the same results may be obtained in the measurement of the head by the application around it of such a sweat-band or measure, which will indicate the size of the head with great accuracy. The same results may be obtained by extending the lineal-measure indices over the whole sweat-band, again starting with the lineal index of greater value from the ends, as shown in Fig. 2, or, in other words, starting from the longitudinal center of the band with the lineal-measure index of least value—as, for instance, 0—the indices of each half of the band indicating the length thereof. In this figure the sweat-band has also a length of seventy centimeters, for 35+35=70; hence, if any portion thereof is cut away, the addition of the adjacent figures at the ends of the band, when joined, will give the size.

Let it be supposed that the sweat-band, Fig. 2, be cut off at 30 at one end. The ends, when joined, will indicate 30+35=65; or, if cut at both ends at 33, then the size indicated will be 33+33, or sixty-six centimeters, and so on.

I do not desire to claim herein the arrangement of the lineal-measure indices last above described, and shown in Fig. 2, as substantially such arrangement of measure-indices have heretofore been applied to tailors' measures.

In Fig. 4 I have shown the sweat-band applied to a hat, H, and the size indicated thereby is 3+3+50=56.

It will be seen that by the means described the usual measurement of the hats after the sweat-band is applied thereto is dispensed with, and that the measurement of the head to select a hat that will fit it or to have a hat that will fit it made to order is greatly facilitated.

It will of course be understood that the invention is not to be confined in its application to hats only, as it may be applied to any other purposes where circumferential measurements are to be made—as, for instance, for measuring the hand for gloves, &c.—nor is it necessary that in the taking of such measurements a strap, tape, or other flexible and more or less extensible material should be employed, as it is obvious that a hoop or band of metal or of other elastic non-extensible material whose ends are capable of sliding upon each other and exposing to view the scale thereon may be employed.

Having now described my said invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a hat, of a sweat-band provided at each end with a similar series of lineal-measure indices extending from the ends toward the longitudinal center of the band, each series of indices commencing at said ends with the index having the highest value, and a lineal-measure index at the longitudinal center indicating the length of the band minus the sum of the lineal-measure indices at the ends thereof, substantially as and for the purposes specified.

2. In the manufacture of hats, the mode of ascertaining and indicating the size of the hats without measuring and labeling the same, which consists in delineating on a sweat-band of a given length two similar series of lineal-measure indices extending from the ends of said band to the longitudinal center thereof, arranging the indices in a successively decreasing order from said ends, delineating at the longitudinal center of the band a unit lineal measure indicating the length of the band minus the sum of the indices at the ends thereof, and securing the band to the hat so that its ends will meet, cutting off the excess in the required length, if any, substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH BURTHOUL.

Witnesses:

HENRI RACLOT,

CHARLES DELRUE.