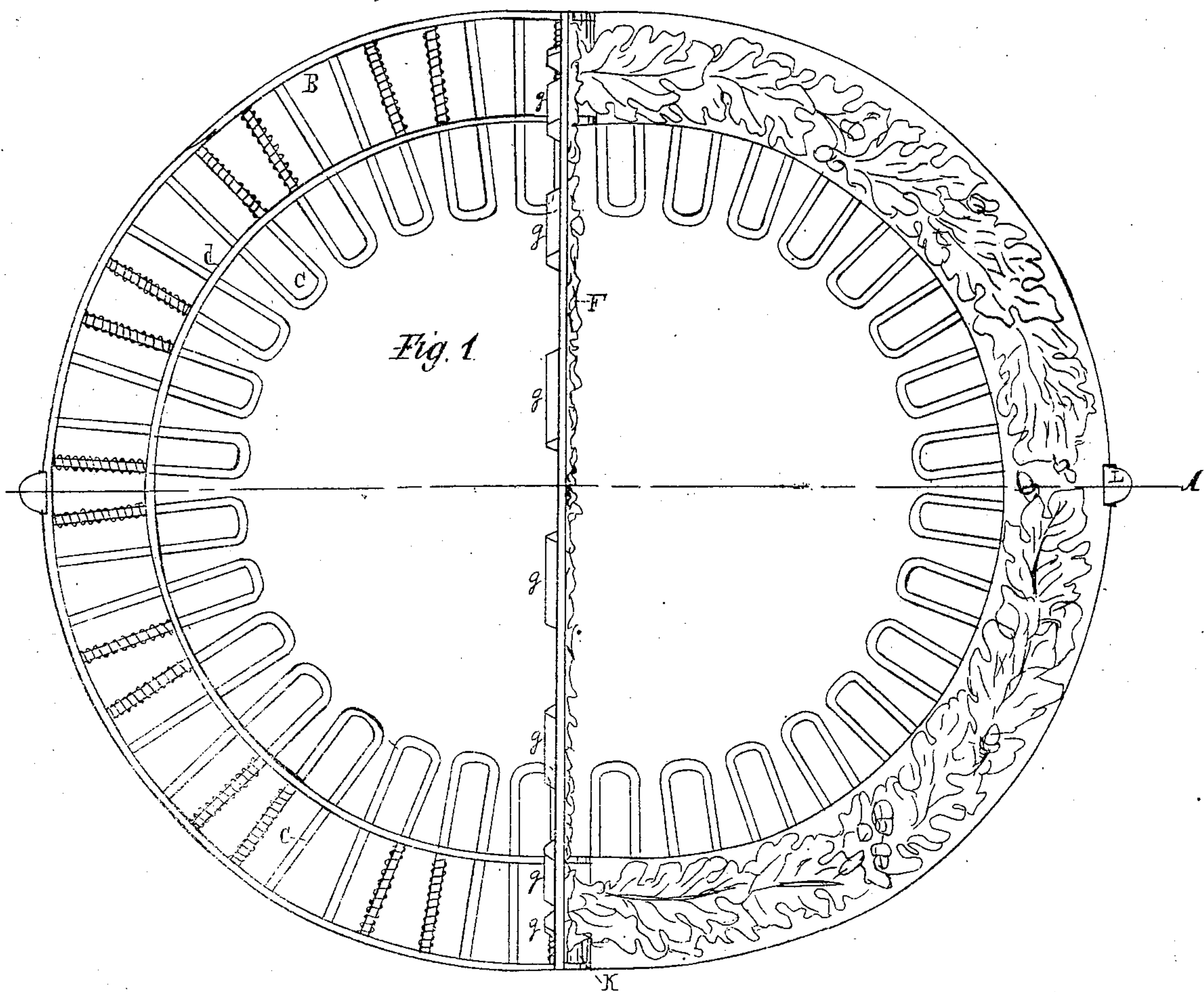
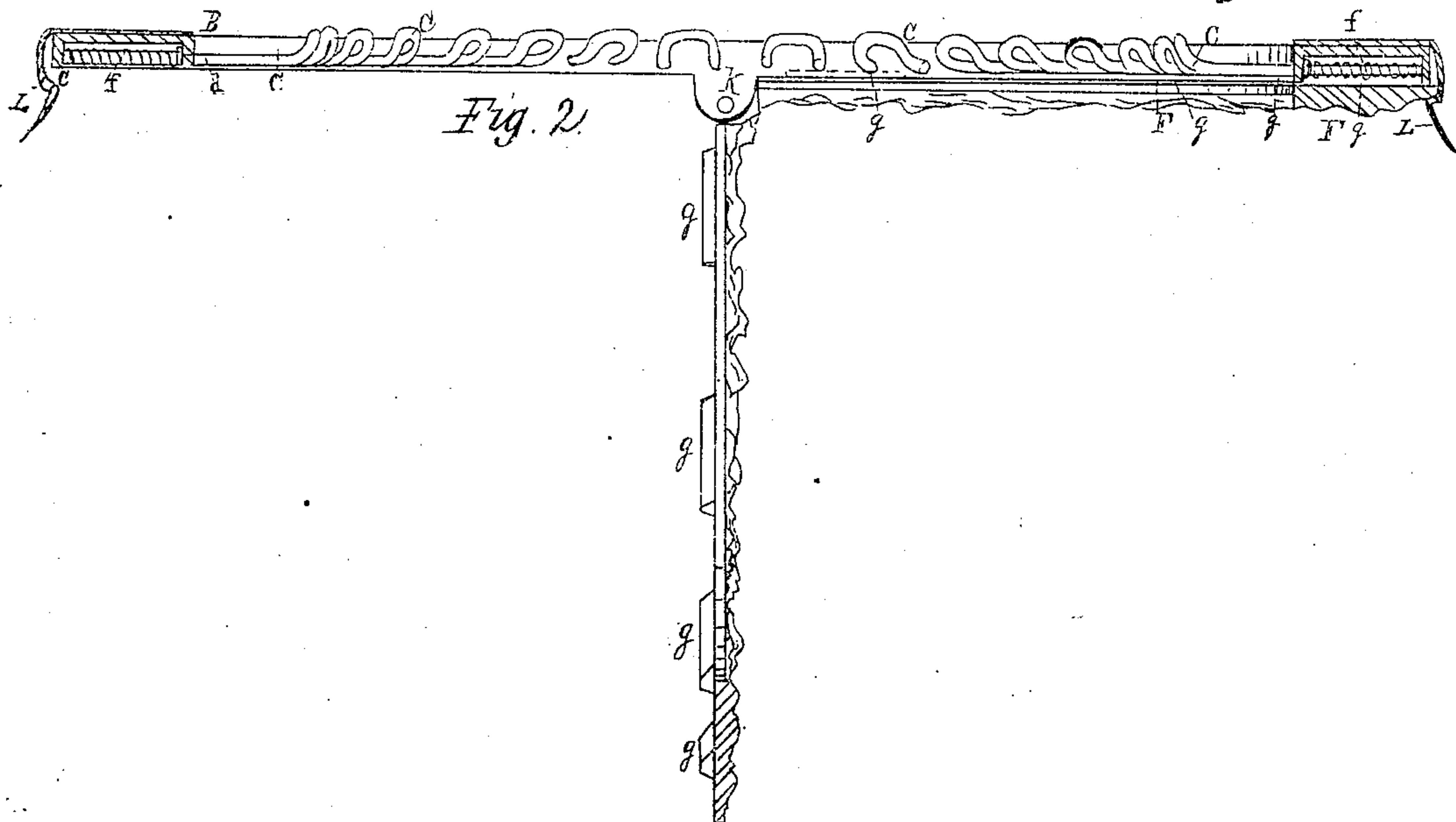


E. T. Miller.
Conformator.

No 14,984

Patented May 27 1856



UNITED STATES PATENT OFFICE.

E. T. MILLER, OF CHARLESTOWN, MASSACHUSETTS.

CALIPERS FOR MEASURING IRREGULAR FORMS.

Specification of Letters Patent No. 14,984, dated May 27, 1856.

To all whom it may concern:

Be it known that I, ELLIOTT T. MILLER, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented
5 a new and useful Improvement in Calipers, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, in which—

Figure 1, is a plan. Fig. 2, a vertical
10 section upon the line A, A, of Fig. 1.

Calipers for measuring the size and form of the head have been contrived, in which a system of bent levers were employed, and a diminished diagram of the form of the
15 head produced. This diagram was then employed to adjust the composite blocks upon which the hat was dressed. Besides the complication and original cost of this apparatus there are other objections to which
20 this apparatus is liable which have prevented its general introduction, and which it is the object of my present invention to remove.

To enable others skilled in the art to understand my invention, I will proceed to describe the manner in which I have carried
25 it out.

In the accompanying drawings, B, is the base plate, in the flanges *c*, *d*, of which play
30 the fingers C, which are kept in the position represented in Fig. 1, by the springs *f*. They may however be forced in by a gentle pressure and there secured by the blocks of india rubber *g*, upon the underside of the
35 plates F. These plates are hinged to the base plate at *h*, and are held down upon the fingers by the spring catches L.

Operation: The calipers constructed, and

arranged as described, are applied to the head, the fingers C, being forced in, until
40 they indicate the exact form of the part to which they are applied. The plates F are then forced down under the spring catches L by which means the india rubber blocks are pressed against the fingers, and the lat-
45 ter are held in place. The calipers may then be applied directly to the composite hat block which is made to conform more exactly to the shape of the head than where a diminished pattern is employed which re-
50 quires again to be enlarged.

Heretofore I have spoken of my calipers as applicable particularly to taking the shape of the human head and transferring it to the hat block. It is evident however that
55 it may be employed to measure other bodies, the exact size and contour of which require to be determined. I do not therefore confine myself to their use as head calipers, but intend to employ them for a variety of other
60 purposes to which they are applicable or whenever it becomes necessary to measure the configuration of irregular forms such as the human foot, or the foot of the horse or other animals to be shod.
65

What I claim and desire to secure by Letters Patent is—

The above calipers constructed in the manner substantially as herein described, and consisting essentially of the fingers C,
70 plates F, and elastic blocks *g*, as set forth.

E. T. MILLER.

Witnesses:

SAM. COOPER,
P. E. TESCHEMACHER.