F. J. SEYBOLD.

GAGES.

No. 187,052. Patented Feb. 6, 1877.

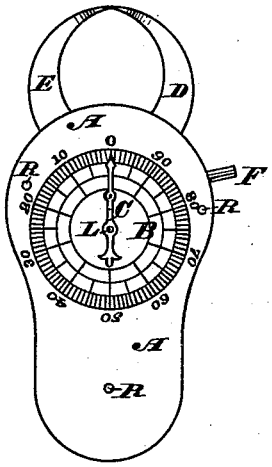

Fig. 1

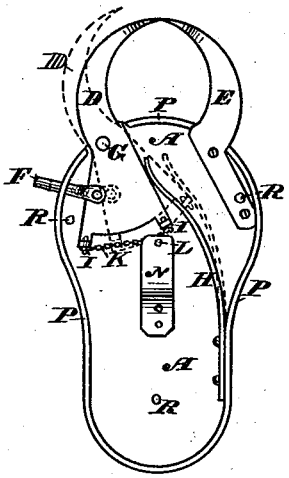

Fig. 2

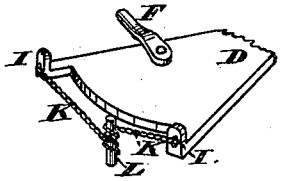

Fig. 3

Attest

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H. H. Garrison

Inventor

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UNITED STATES PATENT OFFICE.

FREDERICK J. SEYBOLD, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES D. VANDERFORD, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN GAGES.

Specification forming part of Letters Patent No. **187,052**, dated February 6, 1877; application filed October 23, 1876.

To all whom it may concern:

Be it known that I, FREDERICK J. SEYBOLD, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Micrometers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Figure 1 shows the upper or index plate of my micrometer, with the hand or index-pointer C, and the dial or circular scale B, and the upper end of the cylinder L. (Shown more fully in Fig. 3.) Fig. 2 shows the reverse side of the same plate as shown in Fig. 1, to which the works of the micrometer are attached.

The bottom plate that covers these works is removed. This plate (which is not shown) fits over the works, and is screwed to the plate A at the points R, and separated from it by the rim P, which is about the same thickness of the works, and leaves just room for them to work freely between the two plates. D is a movable plate or jaw, with its nipper end resting against the nipper end of the stationary jaw E. F is a stem attached to the movable jaw D. To the points I of the jaw D is attached a chain or cord, K, which is coiled around the cylinder L.

Pressure on the stem F turns the jaw D on the pivot G, and the chain K, as it uncoils from the cylinder L, revolves the cylinder L, and with it the index-hand C, attached to one end of the cylinder. The jaw D is thrown back to its place again by the spring H. N is simply a bearing for the lower end of cylinder L.

The article to be measured is placed between the nipper-points D and E, which are thrown apart by the pressure on the stem F. A very small object placed between the points D and E will move the index-pointer C a comparatively large distance on the dial B. By this means the slightest difference in size or thickness of different bodies can be readily and easily ascertained.

What I claim as new and as my invention, and wish to secure by Letters Patent, is—

1. The combination of the movable nipper or jaw D with the chain or cord K, cylinder L, and index-hand C, as shown and described, for the purpose set forth.

2. The combination of jaw D with the spring H, in the manner shown and described, and for the purpose set forth.

3. The combination of the plate A with the jaws D and E, spring H, chain K, cylinder L, index-hand C, and stem F, as shown and described, and for the purpose set forth.

FREDERICK J. SEYBOLD.

Witnesses:

MARION U. HIGGINS,

JAMES D. VANDERFORD.