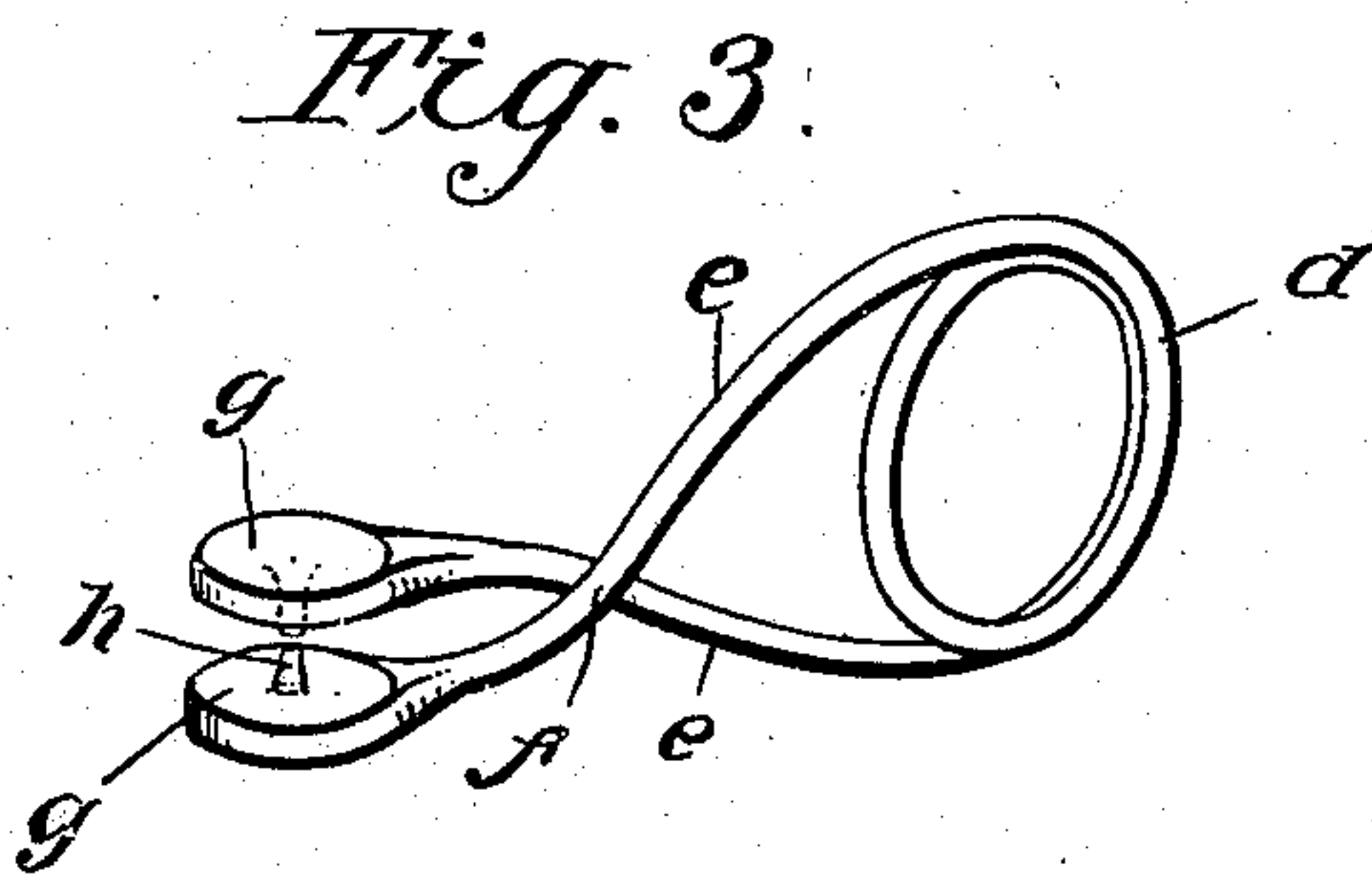
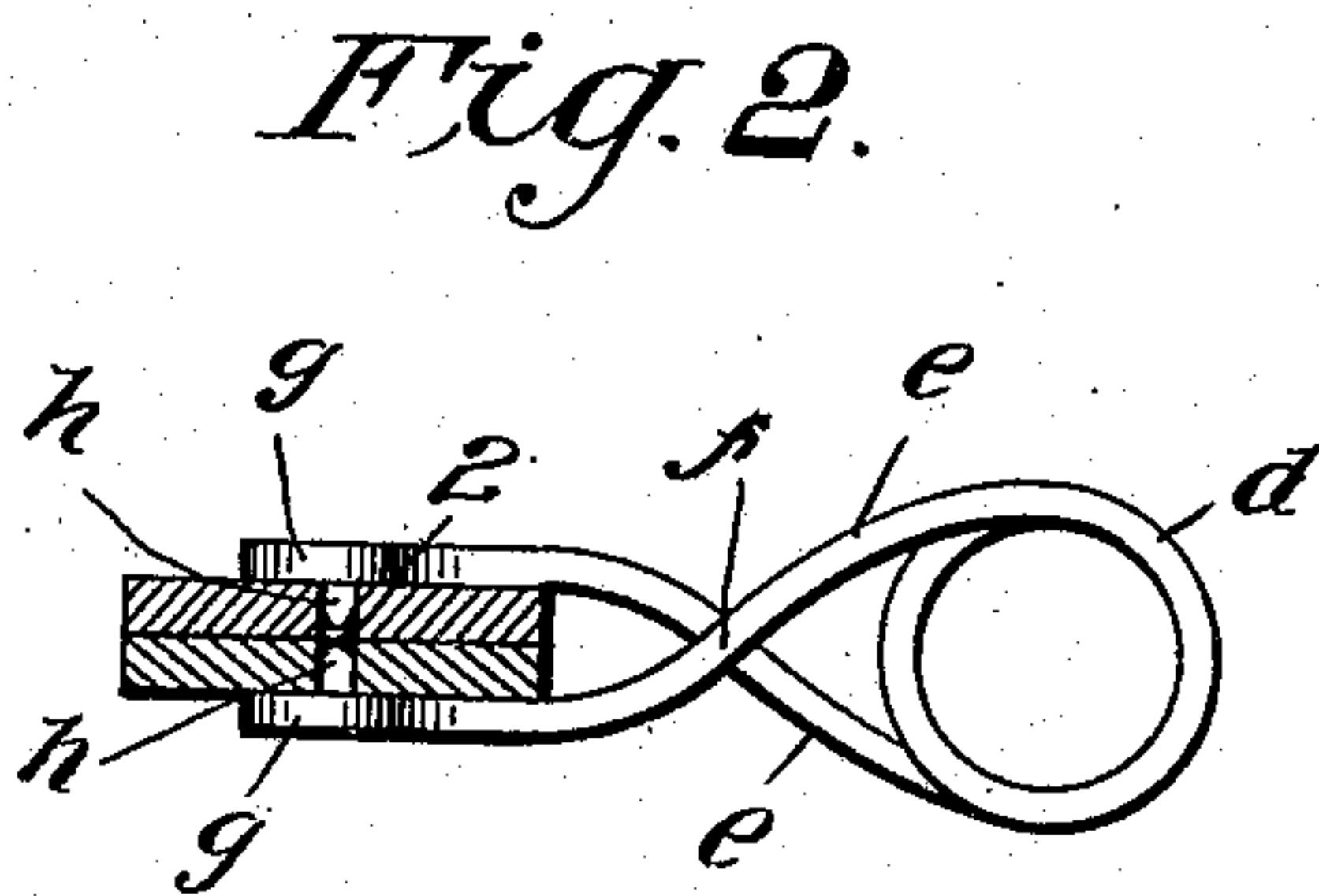
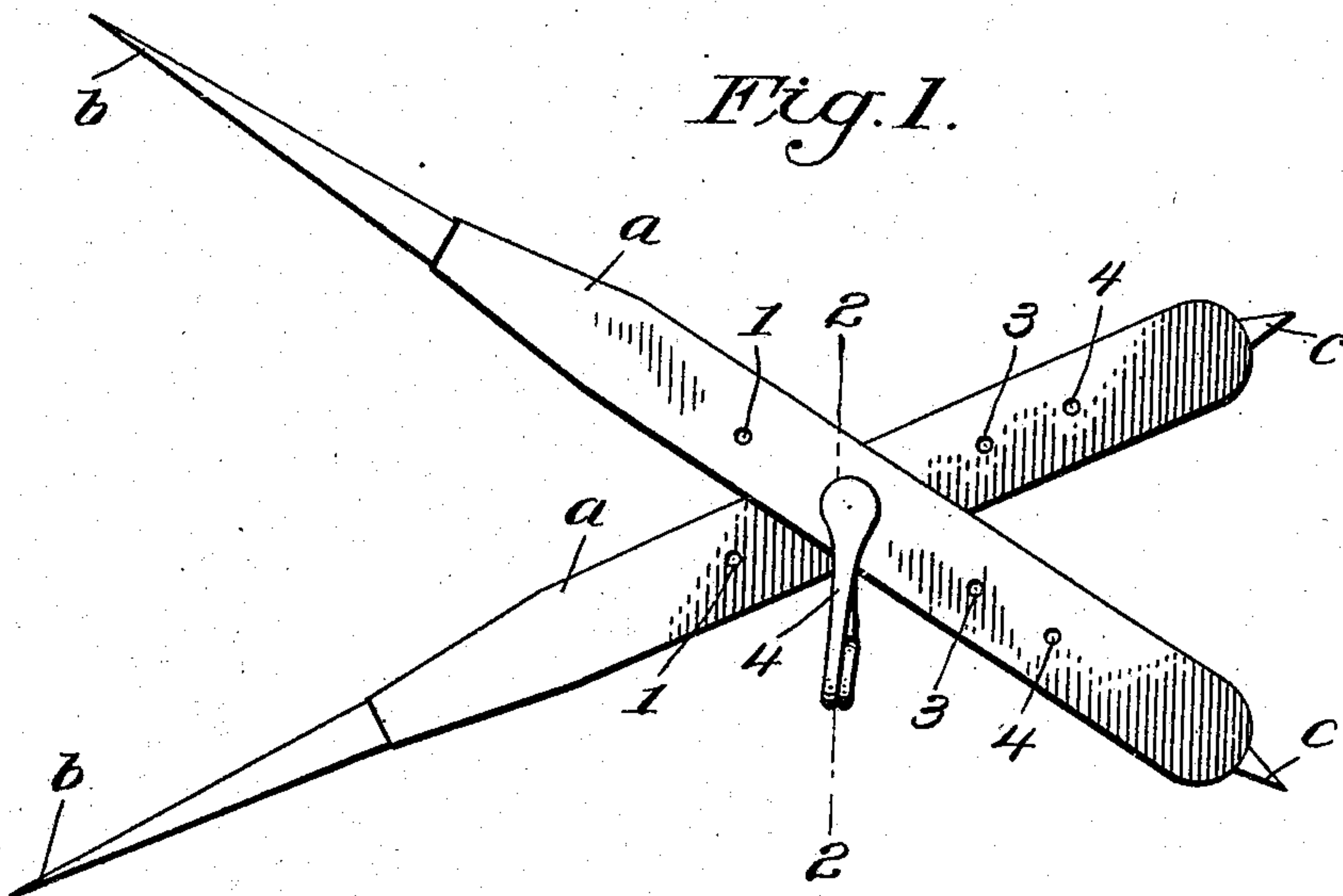


A. L. BLACK.  
 PROPORTIONAL DIVIDERS.  
 APPLICATION FILED MAR. 9, 1909.

936,857.

Patented Oct. 12, 1909.



Archie L. Black. <sup>Inventor</sup>

Witnesses

*W. L. Gibson.*

*W. L. Gibson.*

By *Victor J. Evans*

Attorney

# UNITED STATES PATENT OFFICE.

ARCHIE L. BLACK, OF ARBUCKLE, CALIFORNIA.

## PROPORTIONAL DIVIDERS.

936,857.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed March 9, 1909. Serial No. 482,317.

*To all whom it may concern:*

Be it known that I, ARCHIE L. BLACK, a citizen of the United States of America, residing at Arbuckle, in the county of Colusa and State of California, have invented new and useful Improvements in Proportional Dividers, of which the following is a specification.

This invention relates to proportional dividers, and one of the principal objects of the invention is to provide simple means for adjusting the two members of the divider to give the proportions of a figure for the purpose of reproducing said figure either the same size or to enlarge or reduce the same.

Another object of the invention is to provide a simple tool for draftsmen's use comprising two separable members and a spring clip for holding said members together, said clip having studs adapted to extend through registering perforations in the members to adjust said members properly to proportion a figure for enlargement or reduction.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which,—

Figure 1 is a plan view of a proportional divider made in accordance with my invention. Fig. 2 is a sectional view on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of the spring clip for holding the two members of the divider in adjusted position.

Referring to the drawing, the letter *a* designates the members of the divider, each having a scribing point *b* at one end thereof and a gage point *c* at the other end. The members *a* are flat for the major portion of their length, and they are provided each with registering perforations 1, 2, 3 and 4. A spring clip preferably formed of a single strand of spring wire is provided for holding the two members in adjusted position. This spring clip is bent into the form of a coil *d*, and the two arms *e* are crossed at *f*, the terminal ends of said arms being flattened or formed into disks *g*. Formed centrally upon the inner surfaces of the disks *g*

are studs *h* adapted to extend into the registering perforations in the members *a*.

The operation of my divider may be briefly described as follows: Should it be desired to reproduce a figure of the same size as the copy the clip is disconnected from the members *a* by pressing upon the arms *e*, and the studs *h* are then inserted in the registering perforations 1. If the clip is secured to the perforations 2, the scribing points *b* will be separated twice the distance between the gage points *c*. If the clip should be adjusted in the perforation 3, the instrument will mark off a figure three times as large as that indicated between the gage point *c*, and so on.

From the foregoing, it will be obvious that a pair of dividers made in accordance with my invention, while simple in construction, can be quickly adjusted to any relative proportions desired and will operate efficiently for their purpose.

I claim:—

1. A divider comprising two members each having a scribing point at one end and a gage point at the other, said members being provided with registering perforations, and a clip for holding said members adjustably together, said clip comprising a coil, spring arms extending from the coil and crossed, said arms having inwardly extending projecting studs which extend into said registering perforations.

2. A proportional divider comprising two members having flattened body portions provided with registering perforations, and a spring clip for holding said members in adjusted position, said clip comprising a coiled spring having crossed arms and inwardly projecting studs.

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

ARCHIE L. BLACK.

Witnesses:

AGNES L. BLACK,  
ALICE B. DETRO.