(No Model.)

F. COYKENDALL.

DRAFTING COMPASSES.

No. 595,607. Patented Dec. 14, 1897.

Fig. 1.

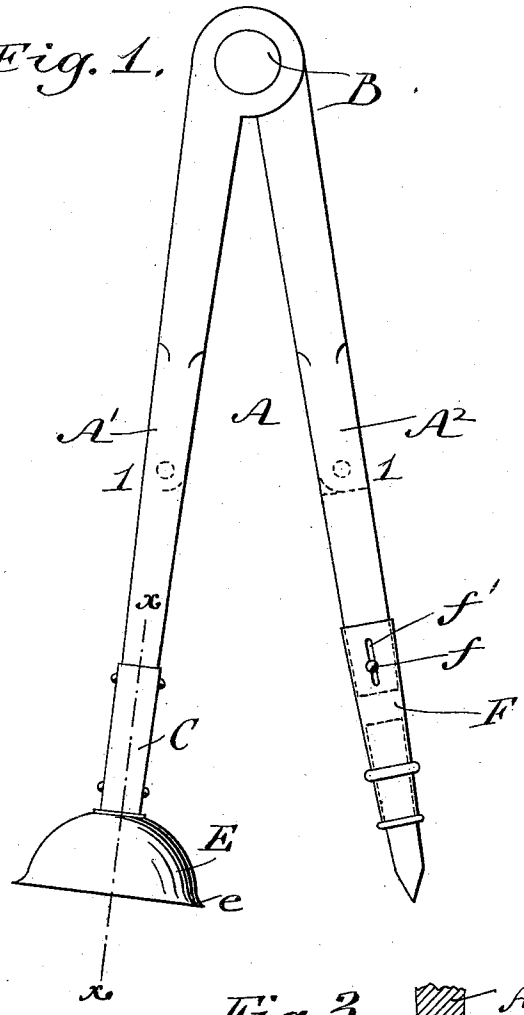


Fig. 2.

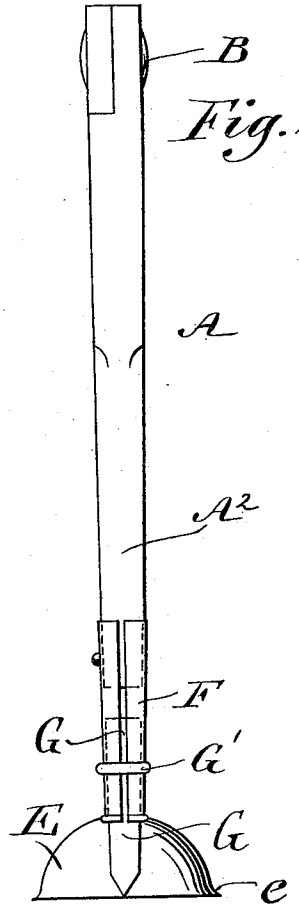
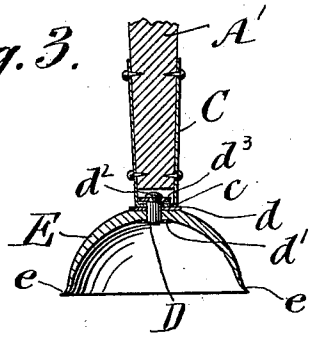


Fig. 3.



WITNESSES:

S. E. Sprague

R. McComb.

INVENTOR

Frederick Coykendall

BY

Cary, Reemer & Co

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITH., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK COYKENDALL, OF NEW YORK, N. Y.

DRAFTING-COMPASS.

SPECIFICATION forming part of Letters Patent No. 595,607, dated December 14, 1897.

Application filed February 23, 1897. Serial No. 624,663. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK COYKENDALL, a citizen of the United States, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Drafting-Compasses, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to an improved drafting-compass, the object thereof being to produce an instrument of this character adapted for describing circles of large diameter without the necessity of punching holes in the surface upon which the operator is working.

The device is simple in construction, durable, and inexpensive, and it is especially applicable to blackboard-work, where it can be successfully used without in any way injuring the board.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved compass. Fig. 2 is an edge elevation thereof; and Fig. 3 is a vertical sectional elevation, taken on a line $x\,x$ of Fig. 1, through the lower end of one of the legs of the compass.

In the practice of my invention I provide an ordinary compass A, comprising legs A′ and A^2, pivoted to each other by means of a suitable screw or rivet B. Upon the lower end of the leg A′ a ferrule C is secured. This said ferrule is closed at its lower end by means of a head *c*, which has a spindle D journaled loosely therethrough. Connected to the outer end of this said spindle and clamped between a flange *d*, forming part of the spindle, and a washer *d′* is a flexible cup E, composed, preferably, of rubber. Said cup has a curved annular flange *e* projected therefrom of dimensions considerably thinner than the body of the cup.

The spindle D has a contracted upper end portion d^2 projected therefrom, which is riveted to a washer d^3, whereby the cup is securely fastened to the ferrule, while at the same time it is susceptible of ready rotary motion thereon. The other leg A^2 of the compass has a conical split collar F connected thereto by means of a screw *f*, which passes through a vertical slot *f′*. This said collar is composed of spring metal, and it is adapted to clamp any suitable marking-pencil G, and as a means for contracting the collar a vertically-movable ring G′ is placed thereon, and by moving this said ring in an upward direction the collar will be caused to tightly clamp the pencil. This said clamping action may be intensified by forcing the collar upwardly upon the leg A^2.

In the use of the device the cup E is pressed against the surface upon which an operator is drawing until a considerable quantity of the air is expelled therefrom. Atmospheric pressure will then retain the cup in a fixed position upon the board or surface and the flexible edge of the cup will provide an air-tight joint, whereby the compass can freely revolve upon the cup without danger of displacement.

I do not confine myself to the specific construction of compass as herein illustrated and described, as it is obvious that under the scope of my invention I am entitled to any form of compass. For instance, my invention may be applied to a beam-compass or to a compass having knuckle-joints, as illustrated at 1, Fig. 1 of the drawings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A compass having a flexible cup pivotally attached to the lower end of one of the legs thereof, said cup adapted to be secured to a surface by atmospheric pressure, and a clamping device for holding a pencil or crayon secured to the end of the other leg, substantially as shown and described.

2. In a compass, the combination of a ferrule attached to one leg thereof and a revoluble flexible air-tight cup having an annular flange thereon, and a clamping device secured to the other leg of the compass, comprising a split collar and a ring for closing the collar around a pencil or crayon, substantially as shown and described.

3. In dividers of the character described

having two pivoted members, an attachment comprising a flexible cup pivotally attached to the end of one member and adapted to adhere to a surface by the pressure of external atmosphere when the air has been exhausted therefrom, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 20th day of February, 1897.

FREDERICK COYKENDALL.

Witnesses:
C. SEDGWICK,
B. MCCOMB.