C. W. BLAKE.

Blackboard Compass.

No. 207,101. Patented Aug. 20, 1878.

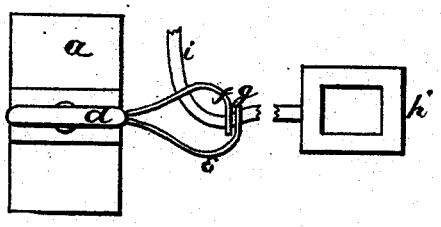

FIG. 1.

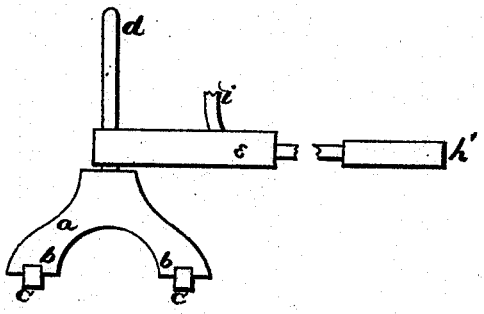

FIG. 2.

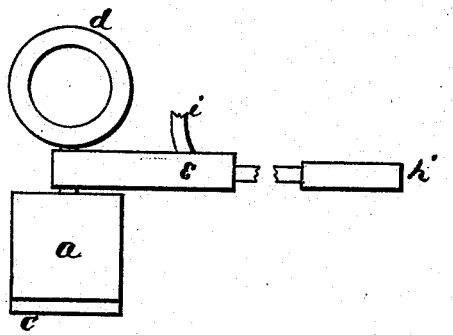

FIG. 3.

WITNESSES:

Chas. H. Kimball.

William Henry Massey.

INVENTOR:

Chas. W Blake

Per atty

Wm Henry Clifford

UNITED STATES PATENT OFFICE.

CHARLES W. BLAKE, OF PORTLAND, MAINE.

IMPROVEMENT IN BLACKBOARD-COMPASSES.

Specification forming part of Letters Patent No. **207,101**, dated August 20, 1878; application filed July 29, 1878.

To all whom it may concern:

Be it known that I, CHARLES W. BLAKE, of Portland, in the county of Cumberland and State of Maine, have invented certain Improvements in Blackboard-Compasses, of which the following is a specification:

Figure 1 is a top plan. Figs. 2 and 3 are side elevations.

The purpose of my invention is to produce a device for the formation of circles in drawing blackboard exercises, architect's drawings, and other similar work.

My invention consists of a stand or base, *a*. In the form shown in the drawings this base has two feet or legs, *b*. They are provided at their lower ends with rubber projections *c* fitted into slots, as shown in the drawings. From this base rises the handle or thumb-piece *d*. On the stock of the thumb-piece *d* is placed the swivel *e*, so arranged as to turn easily in a circle around the stock of the thumb-piece. This swivel is provided with two hooked arms, *f g*. They overlap slightly at their outer ends and are each provided with a hole near such ends. In their natural relative position the holes pass by each other a slight distance.

When the two arms are pressed toward each other by the thumb and finger, the two holes referred to may be brought so as to match. Through these two holes of the two arms passes a cord, *i*. On the outer end of this cord is attached an elastic clamp or holding device for a crayon pencil, &c. (See *h'*.)

When the two arms of the swivel are left in their natural position the two holes before spoken of will pinch the cord *i*, and so hold it from slipping through the same, and thus enable the user of the device to make any desired number of circles of the same diameter. By pressing, as before described, on the two arms of the swivel the cord *i* can be shortened or lengthened from the center, and thus be made to describe circles of greater or less diameter, as may be wanted.

Any convenient form may be given to the legs or base part.

A convenient form for draftsman's and architect's use is as follows: a base-piece made thin and of metal and of dovetailed shape with a ring at the narrow end; a tightening-screw to work through the ring, so as to hold the thumb-piece in position; then a swivel and cord, as hereinbefore described. In this form the thumb-piece has a point to penetrate the drawing-paper, and thus denote the center of the circle. No such penetrating-point can be properly used on a blackboard, because of its tendency to injure the board.

When employed on a blackboard any convenient method may be used to point the center. In such case a chalk-mark is usually made for the center of the circle, and all that then needs to be done is to so place the base part of the device over such mark as to have it the center of the circle described.

The cord may be provided with a graduated scale to enable the user to determine the diameter of the circle to be described by the instrument.

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

The combination of the base *a* with the legs *b*, rubber projections *c*, thumb-piece *d*, swivel *e*, with its two arms, *f g*, having the holes as described, and the cord *i* and elastic clamp, all as set forth.

In testimony that I claim the foregoing as my own I subscribe my name in the presence of two witnesses.

CHAS. W. BLAKE.

Witnesses:

CHARLES E. CLIFFORD,

WILLIAM HENRY CLIFFORD.