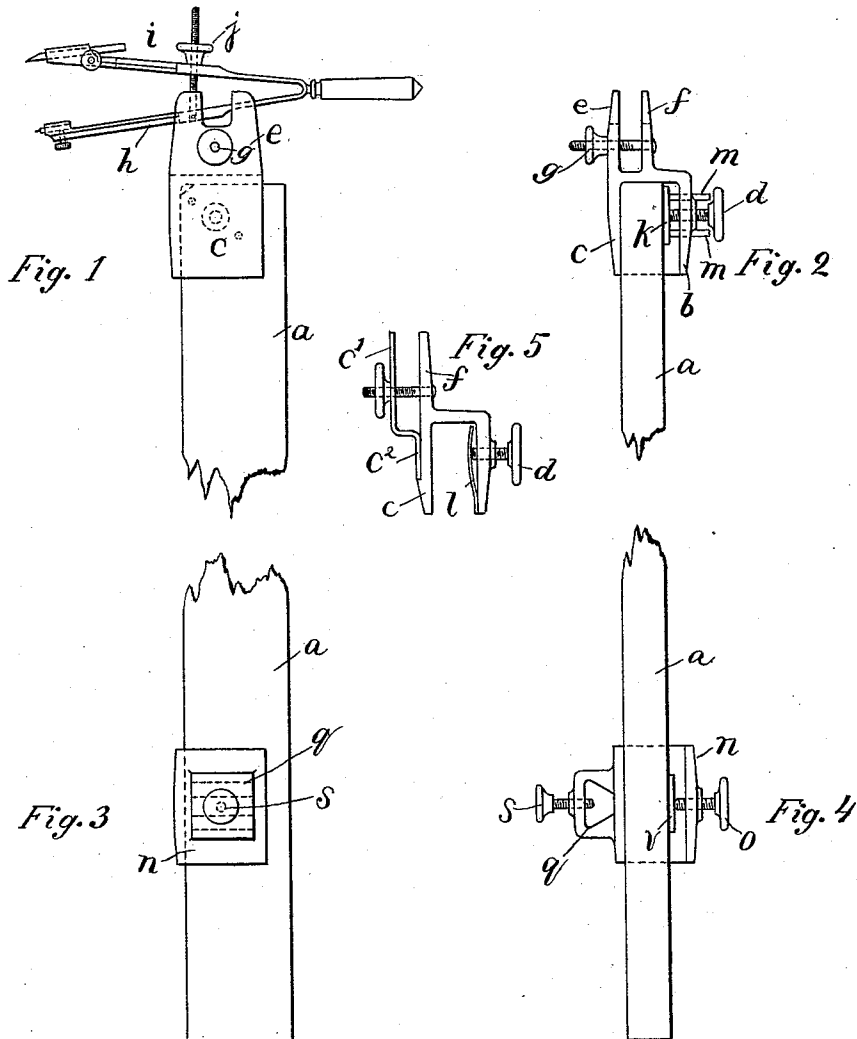


(No Model.)

G. RENNERFELT.
BEAM COMPASSES.

No. 540,690.

Patented June 11, 1895.



WITNESSES:

Wm Smerling
Henry Sellmann

INVENTOR

Gustaf Rennerfelt

UNITED STATES PATENT OFFICE.

GUSTAF RENNERFELT, OF BROOKLYN, NEW YORK.

BEAM-COMPASSES.

SPECIFICATION forming part of Letters Patent No. 540,690, dated June 11, 1895.

Application filed January 26, 1893. Serial No. 459,910. (No model.)

To all whom it may concern:

Be it known that I, GUSTAF RENNERFELT, a subject of the King of Sweden and Norway, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Beam Compasses, of which the following is a specification.

My invention consists of the beam and an independent marking leg and an adjusting device secured thereto, and independent center leg and suitable clamps for securing the marking leg and center leg to the beam.

The object of my invention is to utilize instruments common in the draftsman's kit for the marking leg and center leg in substitution for the more expensive devices commonly furnished with the beam, particularly the micrometer for adjusting the marking instruments.

Figure 1 is a side view of part of the beam with the clamp device of my invention, by which the compasses of ordinary use may be utilized for the marking-leg and its adjusting devices. Fig. 2 is a plan view of the devices of Fig. 1. Fig. 3 is a side elevation of part of the beam and the clamp device of my invention, whereby a detachable portion of spacing compasses or dividers or any other like pointed instrument may be readily applied for the center leg of the beam-compasses. Fig. 4 is a plan view of the devices of Fig. 3, and Fig. 5 is a plan view of the clamp device of Figs. 1 and 2 in a modified form of construction.

I provide a clamp for the end of a plain beam *a*, having two jaws *b*, *c*, and a clamp screw *d*, for attaching to the end of the beam, and other jaws as the open mouthed jaws *e*, *f*, and a binding screw *g*, said jaws adapted to receive the center leg *h*, of marking compasses sidewise and grip it above the point holding socket, so that the other leg *i*, may be used for the marker, said leg *i* being free to be adjusted by the screw *j* same as in the ordinary use of the compass, and as the marker of the ordinary beam compasses is adjusted by the micrometer device, I provide a bearing washer for protecting the side of the beam

from damage by the end of the set screw as *k* or *l*, and connect it movably to the jaw through which the set screw works, as by the sliding studs *m* inserted in holes through the jaw, or by using a spring plate for the washer with one end connected to the jaw as in Fig. 5. Both the jaws *e* and *f*, may be formed integrally with the rest of the clamp as in Figs. 1 and 2, or one or both jaws as *c'* Fig. 5, may be a spring plate fastened at one end as *c''*, to the side jaw *e*, when greater range of the jaws may be required for gripping marking instruments of different sizes.

For connecting the center leg I provide the box clamp *n*, embracing three or it may be four sides of the beam, and having the clamp screw *o*, and beam washer *v* with the eye lug *g*, projecting from one side and having the set screw *s*, to fasten the shank of any suitable pointed instrument as the detachable portion of a leg of spacing compasses in the eye, this clamp being adjustable along the beam at will. In beam compasses as now constructed, the center leg is fitted to the adjusting clamp by screwing into a socket, so that when lost, or damaged so as to be unfit for further use, a new one must be specially fitted, while in this case any one of several pointed instruments always at hand in the draftsman's kit may be readily applied.

I claim—

In a beam compass the combination with a beam, of a central clamp, a vertically adjustable center leg in the clamp, a marking leg having a rigid extension yieldingly secured thereto, an open ended clamp on the beam having a set-screw back from the clamping point, and in which the extension of the marking leg is fixedly secured, and means for adjusting the marking leg relative to the center leg independent of the clamped extension, substantially as described.

Signed at Lynn, in the county of Essex and State of Massachusetts, this 3d day of December, A. D. 1892.

GUSTAF RENNERFELT.

Witnesses:

VICTOR STENSTRÖM,
J. H. NICKOLS.