(No Model.)

F. S. SVENSON

COMPASSES.

No. 295,076. Patented Mar. 11, 1884.

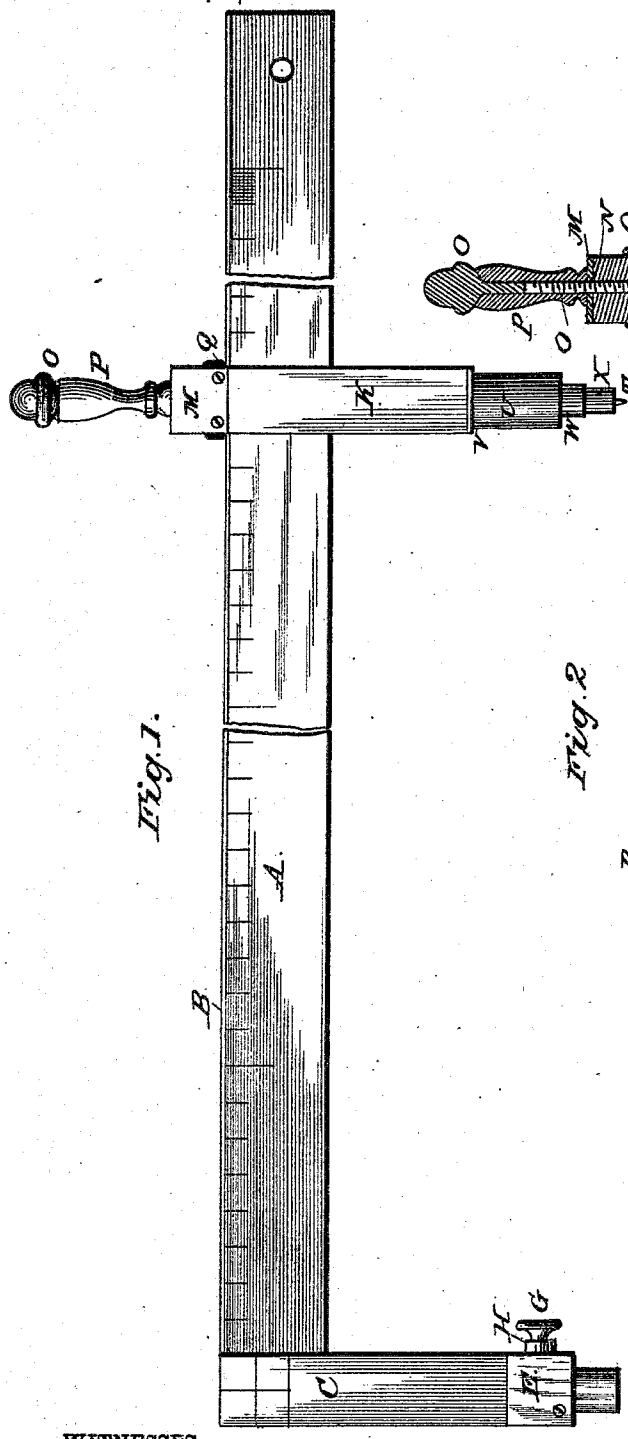


Fig. 1.

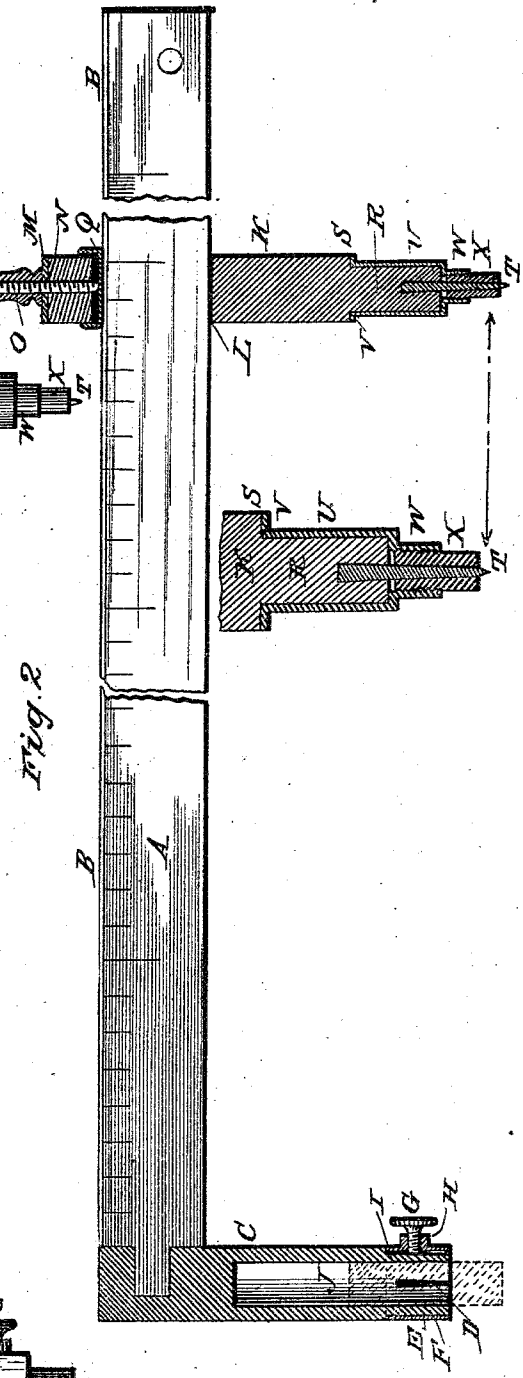


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FRITZ SAMUEL SVENSON, OF LUND, SKÅNE, SWEDEN.

COMPASSES.

SPECIFICATION forming part of Letters Patent No. 295,076, dated March 11, 1884.

Application filed October 10, 1883. (No model.) Patented in Sweden July 3, 1883, No. 237.

To all whom it may concern:

Be it known that I, FRITZ SAMUEL SVENSON, a subject of the King of Sweden, and a resident of Lund, in the Province of Skåne and Kingdom of Sweden, have invented certain new and useful Improvements in Compasses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved compasses and ruler for blackboard-drawing and similar drawing, and Fig. 2 is a longitudinal vertical section of the same.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to rulers and compasses for blackboard and similar drawing; and it consists in the detailed construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a flat graduated ruler, having its upper edge provided with a metallic strip, B, and having a block, C, fastened to one end at a right angle to the ruler. This block is thicker than the ruler, and its sides project equally to both sides of the same, so that the block will serve the same purpose for the ruler as the head of a T-square. The lower end of the block is split at D in a plane at a right angle to the plane of the ruler, and the said end is inclosed in a metallic frame or open cap, E, secured to the outer split half, F, of the lower end of the block, and slightly larger than the end of the block, allowing the two split jaws or halves of the block to open or close, and a set-screw, G, turns in a threaded aperture, H, in the inner side of the frame, bearing with its end against the inner half, I, of the split end of the block. The block has a longitudinal bore, J, opening at the lower split end of the same, one-half of the bore being in each jaw or half, and the said bore or recess serves for the reception of the chalk, crayon, or other drawing material used, the clamping-jaws allowing the same to be adjusted between them. A block, K, of the same thickness as the rigid block C, slides with a longitudinal slot, L, in its upper end, upon the ruler, and has a metallic cap, M, at its upper end, having a female threaded perforation, N, which perforation extends through the upper end of the block, and a set-screw, O, turns in this perforation, and has a sleeve, P, upon the portion above the cap and below the head of the screw, which forms a handle turning upon the stem of the screw. The lower end of the screw bears against a plate, Q, having its ends turned up on each side of the block, fitting in the upper end of the slot, bearing with its upper surface against the upper end of the same, and bearing with its lower surface against the upper edge of the ruler, the plate sliding in the upper end of the slot guided by the upturned ends and serving to clamp the ruler in the slot when the set-screw is screwed down. The lower end of the block K is reduced at R, forming shoulders S, and a sharp-pointed pin or needle, T, is secured in the end of the reduced portion, which portion is incased in a metallic sleeve, U, having a flange, V, at its upper end, which fits against the shoulders, while its lower end is reduced, forming a narrower sleeve, W, having screw-threads upon its inner side, into which sleeve a rubber block, X, fitting upon the end of the needle, fits and turns, having corresponding threads upon its upper end.

When the device is used as a pair of compasses, the needle is placed at the point where the center is to be, and the rubber block, bearing upon the sides of the center against the surface of the blackboard, will serve to steady the point of the needle, prevent the same from breaking by only exposing the point, and assist by its elasticity to withdraw the point, the block being compressed by inserting the point.

It will be seen that the ruler may also be used as a T-square by removing the sliding block, or as a common ruler, besides using it as compasses.

I am aware that it is not new to make compasses consisting of a bar or rod having a rigid block and a sliding block or two sliding blocks, one provided with a crayon or piece of chalk, and the other provided with a point; and I do not wish to claim such construction, broadly; but

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In compasses for use in blackboard or similar drawing, the combination of a sharp metallic point at the end of one of the legs, and a rubber block slipped over the point, the latter penetrating the block, covering the entire point or needle, excepting the extreme point, as and for the purpose shown and set forth.

2. The combination of the ruler having the crayon-holding block at one end, a slotted block sliding adjustably upon the ruler, and having a needle at its lower end, and a rubber block slipped upon the needle, the latter penetrating the block and covering the entire needle, excepting the point, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FRITZ SAMUEL SVENSON.

Witnesses:

EDW. LUNDQVIST MATMI,

F. N. NYBERG.