

(No Model.)

R. H. INGERSOLL
PENCIL COMPASSES.

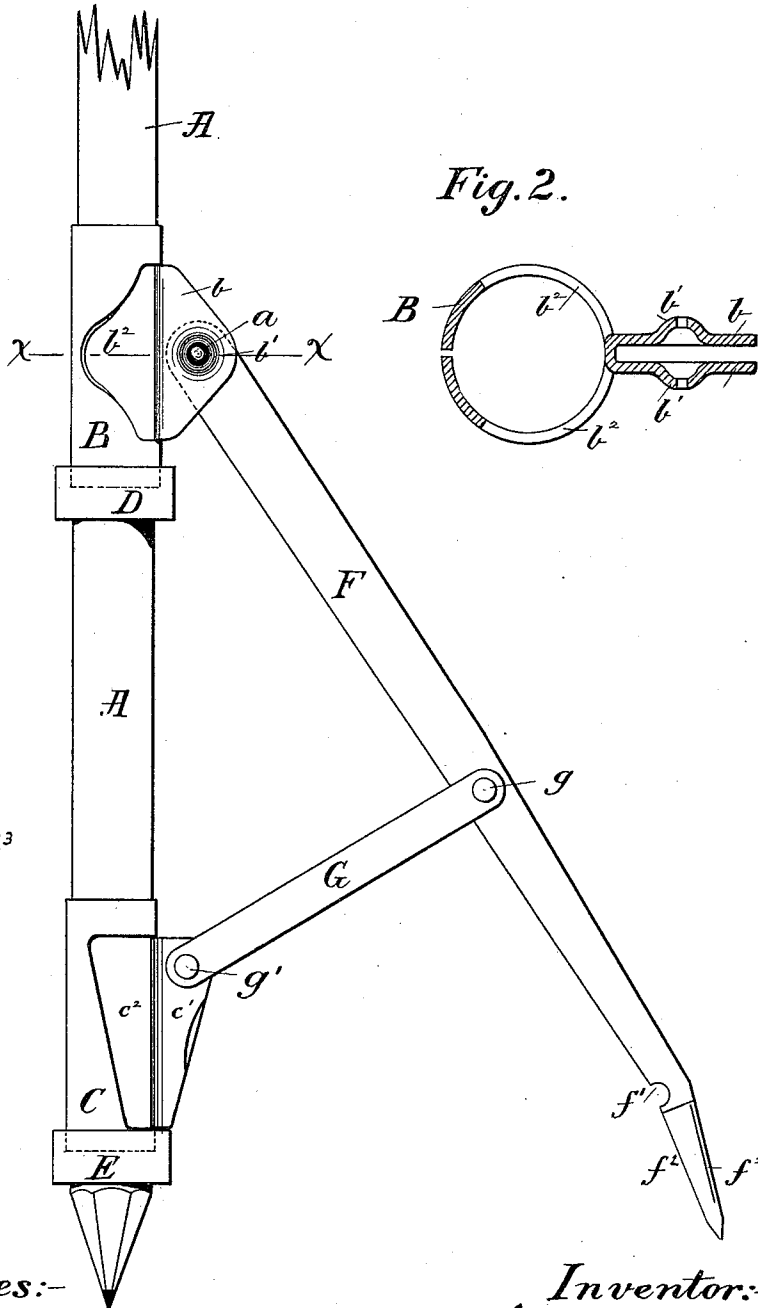
No. 463,901.

Patented Nov. 24, 1891.

Fig. 1.

Fig. 2.

Fig. 3.



Witnesses:-

Wm. H. Fowler
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Inventor:-

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UNITED STATES PATENT OFFICE.

ROBERT H. INGERSOLL, OF NEW YORK, N. Y.

PENCIL-COMPASSSES.

SPECIFICATION forming part of Letters Patent No. 463,901, dated November 24, 1891.

Application filed November 28, 1890. Serial No. 372,950. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. INGERSOLL, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented a certain new and useful Improvement in Pencil-Compasses, of which the following is a specification.

My invention relates to drawing-instruments, and in particular to a device which may be employed for writing and drawing purposes, and has for its object the provision of a device simple in construction, cheap in manufacture, and efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of parts hereinafter fully set forth.

In the drawings which form a part of this specification, Figure 1 represents a side elevation; Fig. 2, a transverse section, on the line $x x$, Fig. 1; and Fig. 3, a view of a modified form of an article constructed according to my invention.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

Referring again to the drawings, A represents a pencil, upon which is placed a friction-sleeve B, preferably formed by bending a flat plate of spring-brass in tubular form, so as to encircle and hug the pencil A, the resilience of the metal causing the sleeve to fit the pencil so snugly that sufficient friction will be created to cause the sleeve to always retain the position in which it may have been placed.

The sleeve B is provided with ears b , struck up from or otherwise secured to the same, in which ears b are formed bosses b' , the centers of which are perforated in order to permit the insertion of a rivet a , which, in connection with the opening placed near the larger end of the compass-leg F, serves to connect together in a movable relation the compass-leg F and sleeve B. It will be observed that the opposite edges of the circular plate B do not quite meet on the side of the pencil opposite the ears b . I prefer this construction in order that if with continued use the sleeve B moves too freely upon the pencil the same may be removed and bent up, so as to be smaller in diameter, and thus cause greater friction in moving the same after it has been replaced upon the pencil A. The pencil is also encir-

led by another sleeve C, also constructed of spring metal, and which is also preferably provided with ears c' , similarly constructed to those hereinbefore described, to one side or to the exterior sides of which latter is or are hinged, as at g' , an arm or a pair of arms G, which serve to support and guide, by means of the connecting-pin g , the compass-leg F, the parts being so arranged that by moving the sleeves B C toward each other the compass-point will travel farther away from the body of the pencil and by causing the sleeves to become separated from each other the compass-leg will approach the pencil.

On account of the rivet a being placed in the bosses b' I obtain better service from the device, as the spring-joint thus formed prevents the leg F from working loose, as is commonly the case wherever the compass-leg is located between the two flat ears of metal.

The compass-leg may be provided with a scale f , and at the free extremity of the same may be formed a knife-blade f' for purposes of erasing, sharpening pencils, &c. The pencil A may also be provided with an erasing-rubber, and which is placed at the blunt end of the same.

The sleeves B and C may be provided with rubber bands D and E to increase the friction of and to prevent from slipping the sleeves B and C when adjusted in the pencil A.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that I reserve the right to make such changes, and that

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

1. The combination, with a pencil and with a sliding spring-sleeve thereupon placed, and consisting of a sheet-metal band provided with ears struck up from the same, to which is hinged a compass-leg, of another similarly-constructed sliding sleeve, also located upon the pencil, and a connecting-arm movably secured directly to one sleeve and to the compass-leg of the other sleeve, substantially as described.

2. The combination, with a pencil and with
a sliding spring-sleeve thereupon placed, and
consisting of a sheet-metal band provided with
ears struck up from the same, in which are
5 formed bosses, to which are hinged a compass-
leg, of another similarly-constructed sliding
sleeve, also located upon the pencil, and a
connecting-arm movably secured directly to
one sleeve and to the compass-leg of the other
10 sleeve, the said sleeves being preferably pro-
vided with rubber friction-bands placed over
the same, substantially as described.

3. The combination, with a pencil, of a
sleeve to which is attached a compass-leg, and
also a rubber friction-band placed over the 15
sleeve, substantially as described.

In testimony of the foregoing specification
I do hereby sign the same, in the city, county,
and State of New York, this 17th day of
November, A. D. 1890.

ROBERT H. INGERSOLL.

Witnesses:

J. ODELL FOWLER, Jr.,
WM. M. V. FOWLER.