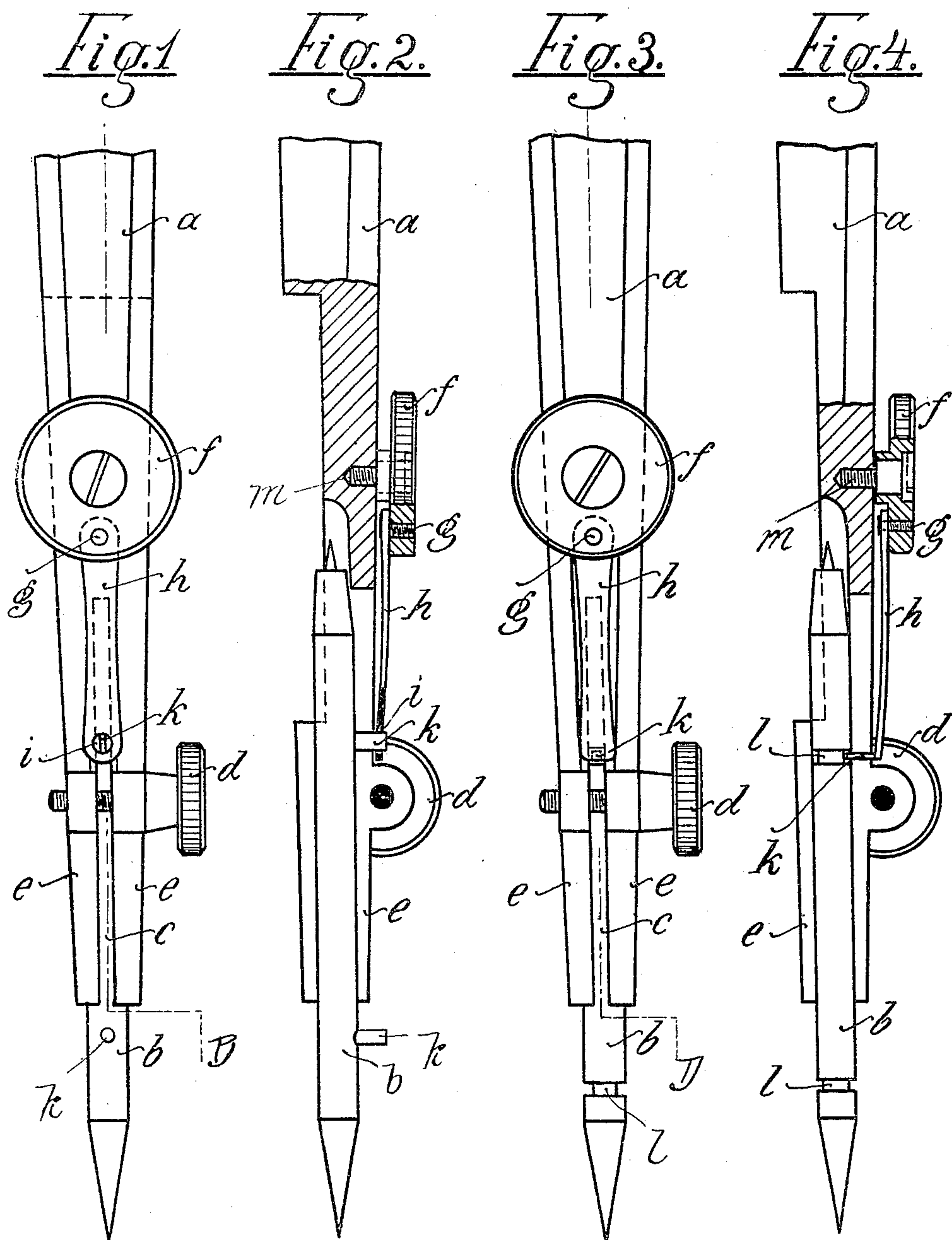


No. 824,311.

PATENTED JUNE 26, 1906.

G. SCHOENNER.
ADJUSTING DEVICE IN COMPASSES.
APPLICATION FILED SEPT. 26, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORG SCHOENNER, OF NUREMBERG, GERMANY.

ADJUSTING DEVICE IN COMPASSES.

No. 824,311.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed September 26, 1905. Serial No. 280,221.

To all whom it may concern:

Be it known that I, GEORG SCHOENNER, a citizen of the Empire of Germany, residing at Nuremberg, in the Empire of Germany, have invented a new and useful Adjusting Device in Compasses, of which the following is a specification.

My invention relates to improvements in drawing-compasses, whereby needle-points pointed either at the one or at both ends may be longitudinally adjusted by means of a crank-disk on the leg and a connecting-rod, a pin being employed for connecting the needle-point with the connecting-rod.

I will now proceed to describe my invention with reference to the accompanying drawings, in which—

Figure 1 is a side view, on an enlarged scale, of a leg of a pair of compasses with the adjusting device. Fig. 2 is a longitudinal section through the same on the line A B in Fig. 1. Fig. 3 is a side view similar to Fig. 1, in which the adjusting device is modified; and Fig. 4 is a longitudinal section through the line C D in Fig. 3.

Similar letters of reference refer to similar parts throughout the several views.

In Figs. 1 and 2 of the drawings I have shown a leg *a* of a pair of compasses, which leg in its free end is longitudinally bored and slitted to form two elastic wings *e e*. In the bore of the leg *a* a needle-point *b* is longitudinally movable and a screw *d* serves for pressing the two wings *e e* on the needle-point *b* in the usual manner. The needle-point *b* is provided with two pins *k k*, either of which can be guided in the external slit *c*. On the external side of the leg *a* is secured a screw *m*, on which a crank-disk *f* is mounted to turn. This disk *f* is provided with a crank-pin *g*, on which an elastic connecting-rod *h* is mounted to rock. The other end of the connecting-rod *h* has a hole *i*, in which either pin *k* of the needle-point *b* can engage.

The adjusting device is operated as follows: Assuming the needle-point *b* to have been so inserted in the bore of the leg *a* that its desired pointed end is without, then the elastic connecting-rod *h* is bent outwardly for introducing the respective pin *k* into its hole *i* and the crank-disk *f* is turned to move longitudinally the needle-point *b*, by means of the connecting-rod *h*, until the pointed end of the needle-point *b* is adjusted, whereupon the latter is secured by screwing home the screw *d*.

In Figs. 3 and 4 the adjusting device is

only modified in that the pin *k* is rigidly connected with the connecting-rod *h* instead of with the needle-point *b*. In this case the needle-point *b* is provided with two necks *l l*, in either of which the pin *k* can engage. This modified adjusting device is operated much in the same manner as before. The adjusting device may be varied without departing from the spirit of my invention.

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

1. In compasses, the combination with a compass-leg the free end of which is longitudinally hollowed and slitted to form two elastic wings, of a needle-point longitudinally movable in the cavity of said compass-leg, a pin on said compass-leg, a crank-disk mounted to turn on said pin and provided with a crank-pin, a connecting-rod the one end of which is mounted to rock on said crank-pin, a pin connecting the other end of said connecting-rod with said needle-point, said pin being secured to one of said parts and a screw adapted to press the two wings of said compass-leg on said needle-point.

2. In compasses, the combination with a compass-leg the free end of which is longitudinally hollowed and slitted to form two elastic wings, of a needle-point longitudinally movable in the cavity of said compass-leg and having a pin which is guided in the slit, a screw on said compass-leg, a crank-disk mounted to turn on said screw and provided with a crank-pin, a connecting-rod connected with said crank-disk by means of its crank-pin and with said needle-point by means of the pin on said point, and a screw adapted to press the two wings of said compass-leg on said needle-point.

3. In compasses, the combination with a compass-leg the free end of which is longitudinally hollowed and slitted to form two elastic wings, of a needle-point longitudinally movable in the cavity of said compass-leg, a screw on said compass-leg, a crank-disk mounted to turn on said screw and provided with a crank-pin, a connecting-rod the one end of which is connected with said crank-disk by means of its crank-pin, means for detachably connecting the other end of the rod to the needle-point, and a screw adapted to press the two wings of said compass-leg on said needle-point.

4. In compasses, the combination with a compass-leg the free end of which is longitudinally bored and slitted to form two elastic

wings, of a needle-point longitudinally movable in the bore of said compass-leg, a pin on said compass-leg, a crank-disk mounted to turn on said pin and provided with a crank-pin, a connecting-rod the one end of which is mounted to rock on said crank-pin, a pin connecting the other end of said connecting-rod with said needle-point, said pin being secured to one of said parts and a screw adapted to press the two wings of said compass-leg on said needle-point.

5. In compasses, the combination with a compass-leg the free end of which is longitudinally bored and slitted to form two elastic wings, of a needle-point longitudinally movable in the bore of said compass-leg and hav-

ing a pin which is guided in the slit, a screw on said compass-leg, a crank-disk mounted to turn on said screw and provided with a crank-pin, a connecting-rod connected with said crank-disk by means of its crank-pin and with said needle-point by means of the pin on said point, and a screw adapted to press the two wings of said compass-leg on said needle-point.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORG SCHOENNER.

Witnesses:

LEONHARD KOERBER,
OSCAR BOCK.