

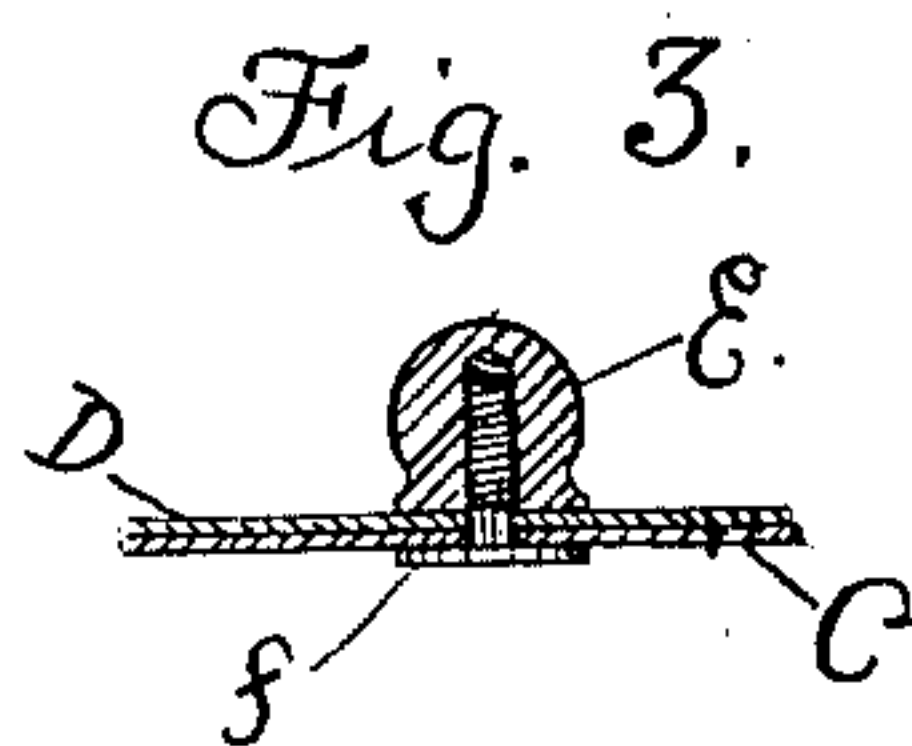
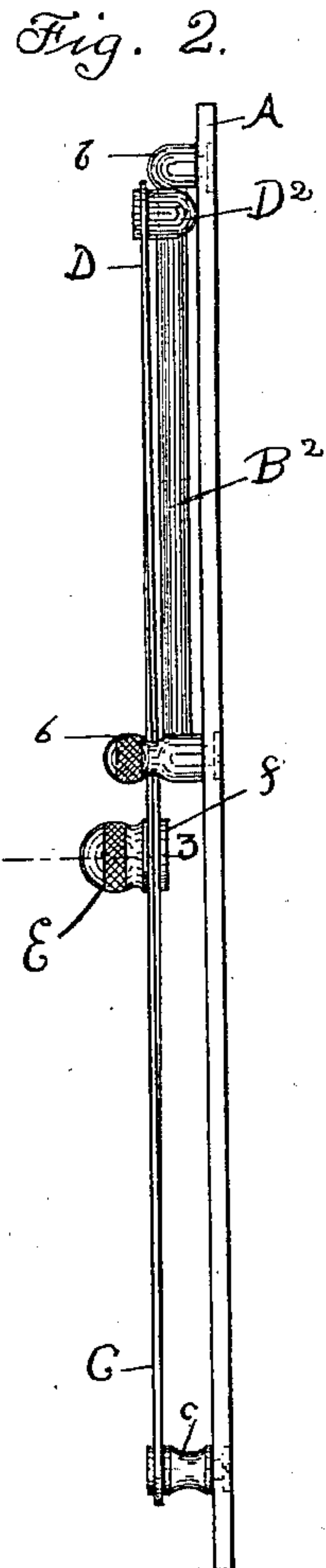
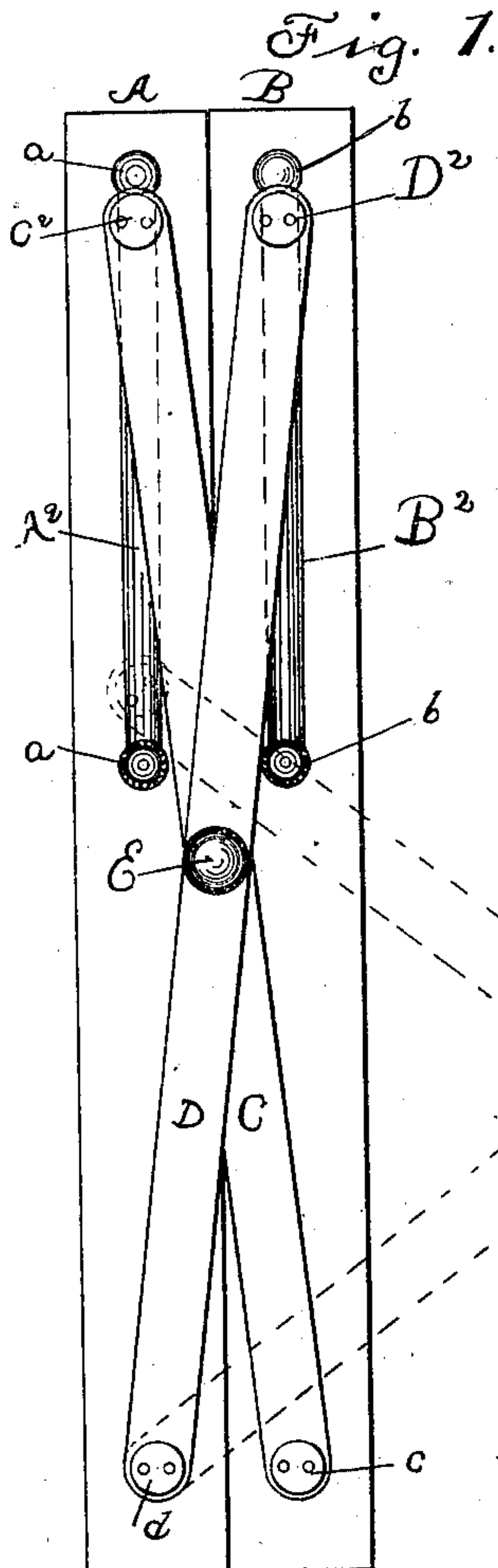
No. 671,281.

Patented Apr. 2, 1901.

G. A. KAY.
RULING INSTRUMENT.

(Application filed Sept. 27, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE A. KAY, OF CRESSKILL, NEW JERSEY.

RULING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 671,281, dated April 2, 1901.

Application filed September 27, 1900. Serial No. 31,229. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. KAY, a citizen of the United States, and a resident of Cresskill, Bergen county, New Jersey, have
5 invented certain new and useful Improvements in Ruling Instruments, of which the following is a specification.

My invention relates to improvements in parallel rulers; and it has for its objects to provide improved means whereby the two main
10 members may be maintained parallel in all positions to which they may be set, to enable said members to be spread apart to a comparatively wide distance, and to maintain said
15 members in parallel relation transversely in all positions in which they may be placed.

In carrying out my invention I provide a pair of parallel members or strips, to adjacent ends of which two pivotally-connected crossed
20 arms are pivoted, and the opposite ends of these arms are movably connected with said members or strips, so as to slide longitudinally thereof, whereby when the members or strips are moved toward or from each other
25 said arms will be folded or extended more or less to permit such movements of its members or strips.

My invention also contemplates certain details of improvement, which will be more fully
30 hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a face view of my improved instrument in the closed position, showing in
35 dotted lines the same extended. Fig. 2 is a side view thereof, and Fig. 3 is a section on the line 3 3 in Fig. 2.

In the accompanying drawings, in which
40 similar letters of reference indicate corresponding parts in the views, A B indicate the main members or strips of my improved instrument, which have longitudinally-extending parallel edges on opposite sides and by
45 preference are made of transparent or translucent material.

C D are a pair of crossed arms, which are pivotally connected between their ends. By
50 preference I provide means to lock or hold the arms C D in the desired position, and for this purpose I have shown a headed screw *f* passing through the arms, upon which screw a

threaded handle or nut E works, the screw *f* thus serving as a pivot for said arms. The arms C D at one end are pivotally connected
55 with the adjacent ends of the strips A B at equal distance from the pivot *f*, as at *c d*. I have shown the arms C D provided with interposed posts or the like *e*, so as to raise said arms a suitable distance from the faces of the
60 strips A B. The opposite ends of the arms C D are movably and pivotally connected with the strips A B, so that said ends of the arms will have movement of translation longitudinally of said strips, as well as a pivotal
65 action relatively to the strips. While any suitable means may be provided for so connecting said ends of the arms with the strips A B, I have shown guideways A² B² upon the strips A B,
70 extending longitudinally thereof, and to this end I have shown posts *a b*, secured to the strips A B and to which the guideways A² B² are secured. By means of these posts said
75 guideways are held at a suitable distance from the face of the strips A B. Upon the guideways A² B² are mounted sliding blocks C² D², which may be of suitable form and provided
80 with an aperture to receive the guideway, and these blocks are pivotally connected with the adjacent ends of the arms C D in suitable
85 manner. It is evident, however, that the guideways may be otherwise arranged in connection with supports upon the strips A B and that the arms C D may be otherwise connected with such guideways. The adjacent
90 points of connection of the arms C D with the strips A B are at equal distances from the pivotal point E. As the respective ends of the arms C D are at equal distances from the
95 pivotal point E, it will be understood that the strips A B will remain in parallel relation at all distances apart, as well as when they are in contact. When the strips A B are pulled apart or pushed together, the arms C D will
100 be caused to turn on their pivots, and as said arms are permanently connected with the strips A B at *c d* the lateral movement of the strips A B will cause the opposite ends of said arms to approach or recede from the point
of the pivotal point E with relation to the strips A B will change, and as the opposite ends of the arms C D are during the lateral movement of the strips A B caused to have

movement of translation longitudinally of said strips the sliding connection of said arms with said strips will cause the strips to remain in parallel relation, while the pivotal connection of both ends of the arms with said strips enables the strips to have the lateral movement described. Thus as the strips are moved laterally the blocks C^2D^2 will slide along their guideways, enabling the strips A B to be moved to any distance apart within the limits intended, which is mainly controlled by the length of the guideways. Furthermore, it will be understood that by the described arrangement of the arms C D in conjunction with the strips A B the latter will always maintain a rectangular condition relatively to each other, or, in other words, said strips will move laterally on parallel lines, as well as always maintaining longitudinal parallelism. The advantages of such an arrangement will be obvious to those accustomed to use such instruments.

Having now described my invention, what I claim is—

25 1. A ruling instrument comprising a pair of strips located side by side, a pair of crossed

arms each pivotally connected to adjacent ends of said strips, longitudinally-disposed guides secured at a distance above the strips near the opposite ends thereof, and blocks mounted upon said guides and interposed between said guides and said arms to enable the arms to have pivotal movement and movement of translation longitudinally of said strips, substantially as described.

2. A ruling instrument comprising a pair of strips, a pair of crossed arms pivotally connected together, said arms being pivotally connected to adjacent ends of said strips, a pair of posts secured to each strip, a guide-rod secured to each pair of posts, the guide-rods being raised from the face of the corresponding strip, a sliding block mounted upon each guide to slide longitudinally over the corresponding strip, and means for pivotally connecting the adjacent ends of said arms with said blocks, substantially as described.

GEO. A. KAY.

Witnesses:

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