

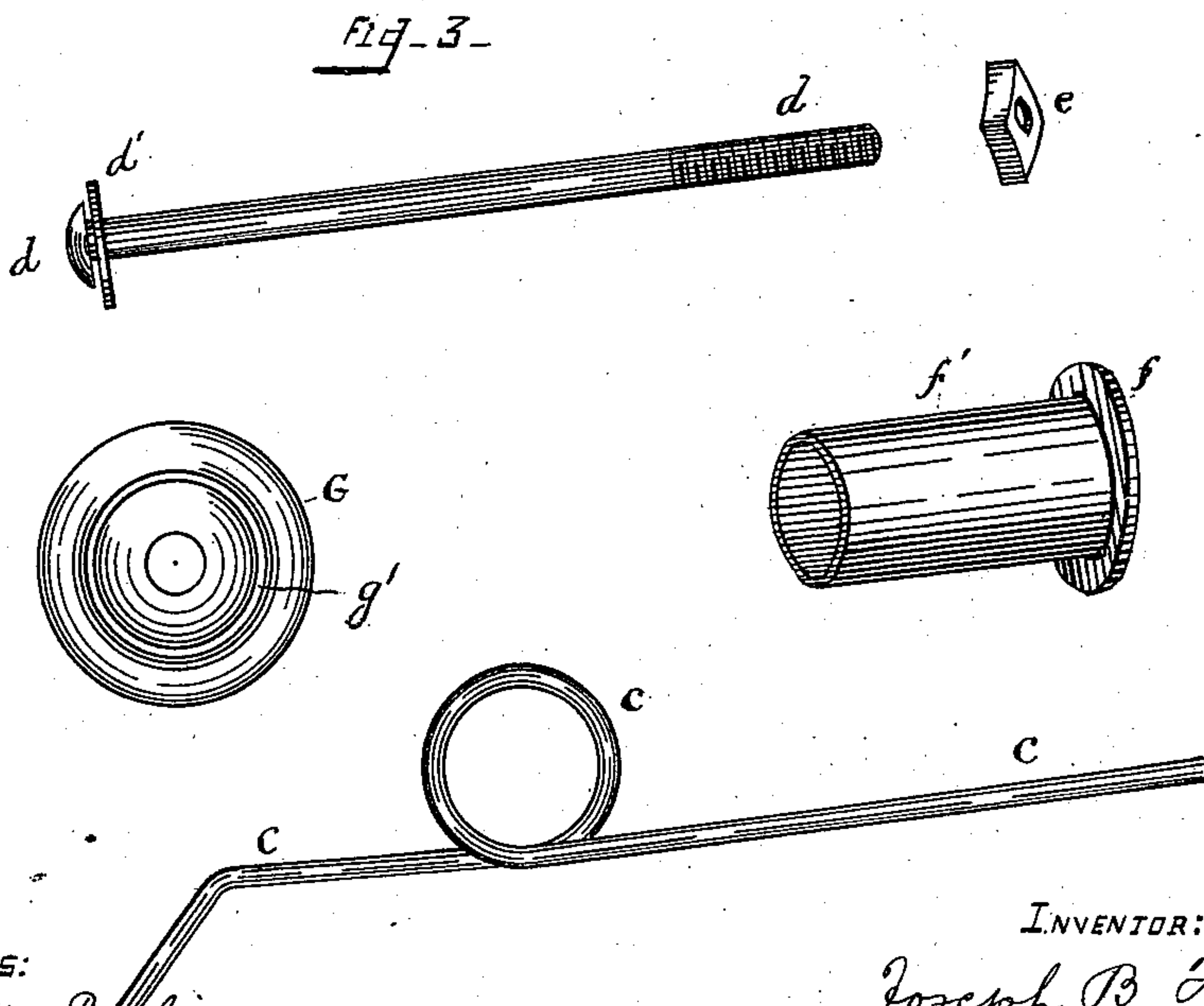
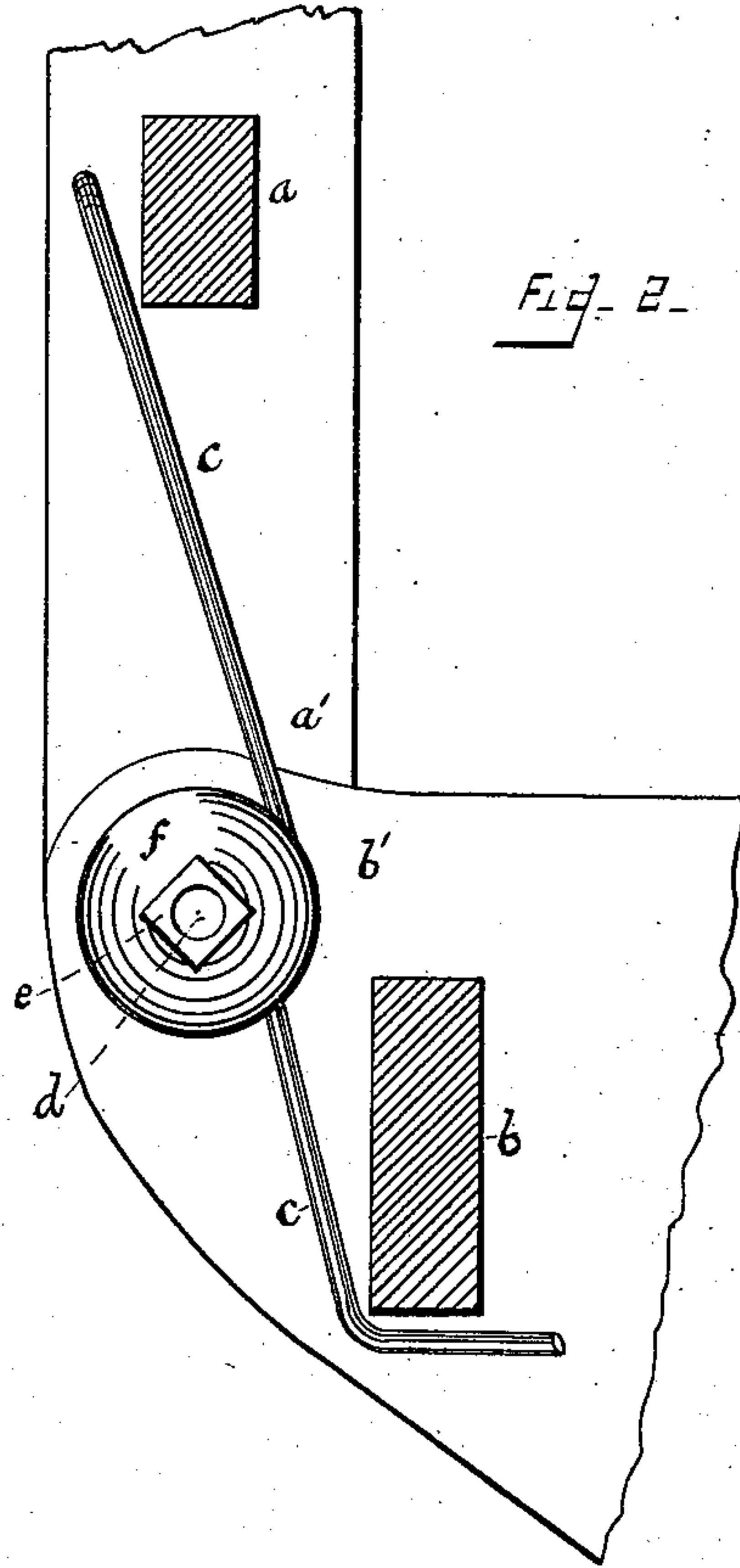
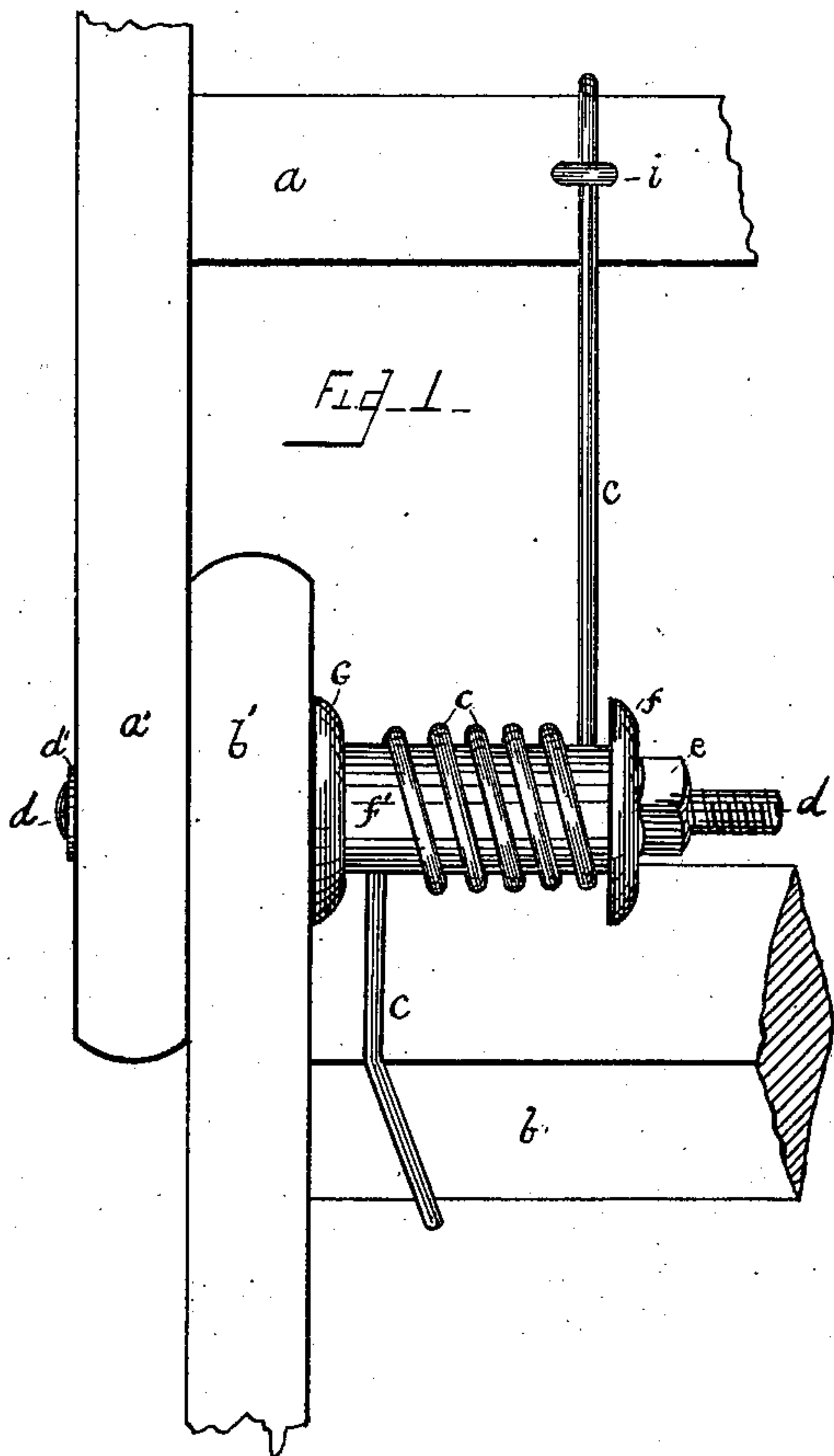
(No Model.)

J. B. HOLDEN.

RETURN SPRING FOR CHAIRS.

No. 376,886.

Patented Jan. 24, 1888.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOSEPH BREAKLEY HOLDEN, OF CATSKILL, NEW YORK.

## RETURN-SPRING FOR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 376,886, dated January 24, 1888.

Application filed July 14, 1887. Serial No. 244,256. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH BREAKLEY HOLDEN, a citizen of the United States, residing at the town of Catskill, in the county of Greene and State of New York, have invented a new and useful Improvement in Return-Springs for Chairs, of which the following is a specification.

My invention relates to that class of chairs which have backs adjustable in different positions, so that the person occupying the chair may sit up or recline at pleasure, and has been devised to make such chairs more comfortable and available.

The nature of the invention consists in the details of construction, substantially as illustrated in the drawings, hereinafter described, and subsequently pointed out in the claims.

Figure 1 illustrates a back view in elevation of part of the frame of a chair with my invention attached. Fig. 2 illustrates another view of the same. Fig. 3 illustrates various details of my invention.

In the drawings, *a a'* designate a part of the frame of the back of a chair, and *b b'* designate a part of the frame of the seat. At *a'* and *b'* these parts overlap each other and are pivotally attached by the bolt *d*. This bolt *d* has under its head a washer, *d'*, on the outside of the back frame of the chair to protect it from being marred. This bolt *d*, passing through the parts *a' b'*, also extends through the washer *g*, the barrel *f'*, and the head *f* of said barrel, and is secured in place by the nut *e*, which is adapted to the threaded end of said bolt. Around this barrel *f'* is wound the helical spring *c*, with one end resting on the

frame of the bottom of the chair, and the other end resting on the frame of the back, as illustrated in Figs. 1 and 2, so that when the spring is in its normal position the back of the chair will be held up, as in Fig. 2, for the person occupying it to sit up, and so that when the back is depressed for reclining the spring will be bent with a tension corresponding to the depression of the back, and so that when the depressing force is removed the chair-back will spring up to its normal position, as represented in Fig. 2.

The interior of the barrel *f'* is much larger than the bolt *d*, and to prevent the barrel from being displaced an annular groove, *g'*, is formed in the washer *g*, into which the end of the barrel *f'* fits, being held in place, as aforesaid, by the bolt *d* and nut *e*, the whole device to be as illustrated in the drawings.

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

1. In a chair, the combination of the parts *a a'* and *b b'*, the bolt *d*, the washer *g*, groove *g'*, barrel *f'*, head *f*, and nut *e*, substantially as and for the purpose set forth.

2. In a chair, the spring *c*, in combination with the parts *a a' b b'*, the bolt *d*, washer *d'*, washer *g*, groove *g'*, barrel *f'*, having head *f*, and nut *e*, substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand in presence of two witnesses.

JOSEPH BREAKLEY HOLDEN.

Witnesses:

F. W. RUBIEN,

C. E. McDONALD.