

(No Model.)

E. SIMON.
MANDOLIN, GUITAR, OR BANJO.

No. 575,071.

Patented Jan. 12, 1897.

Fig. 1.

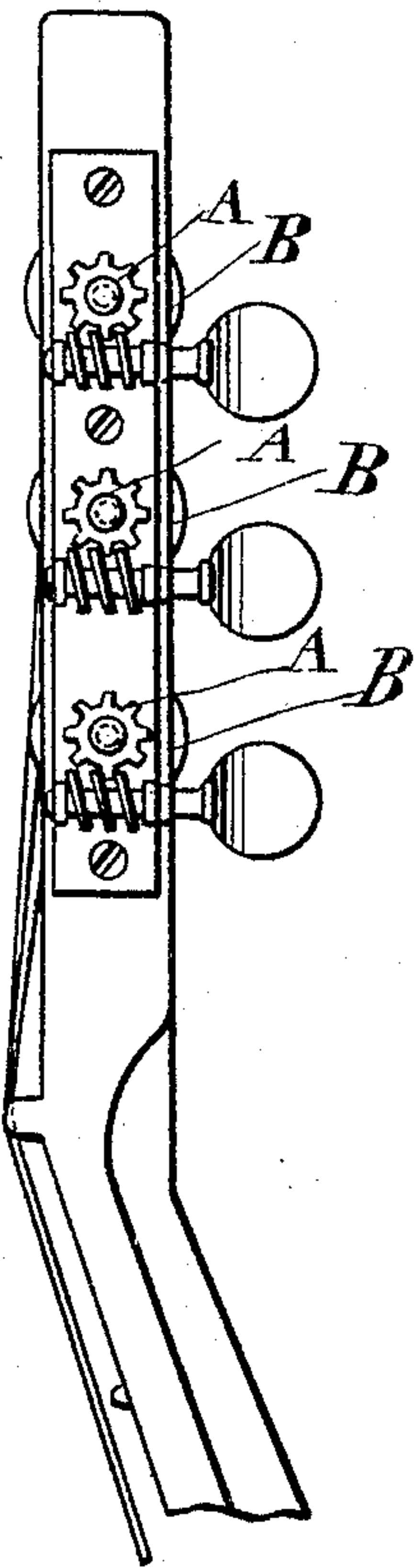


Fig. 2.

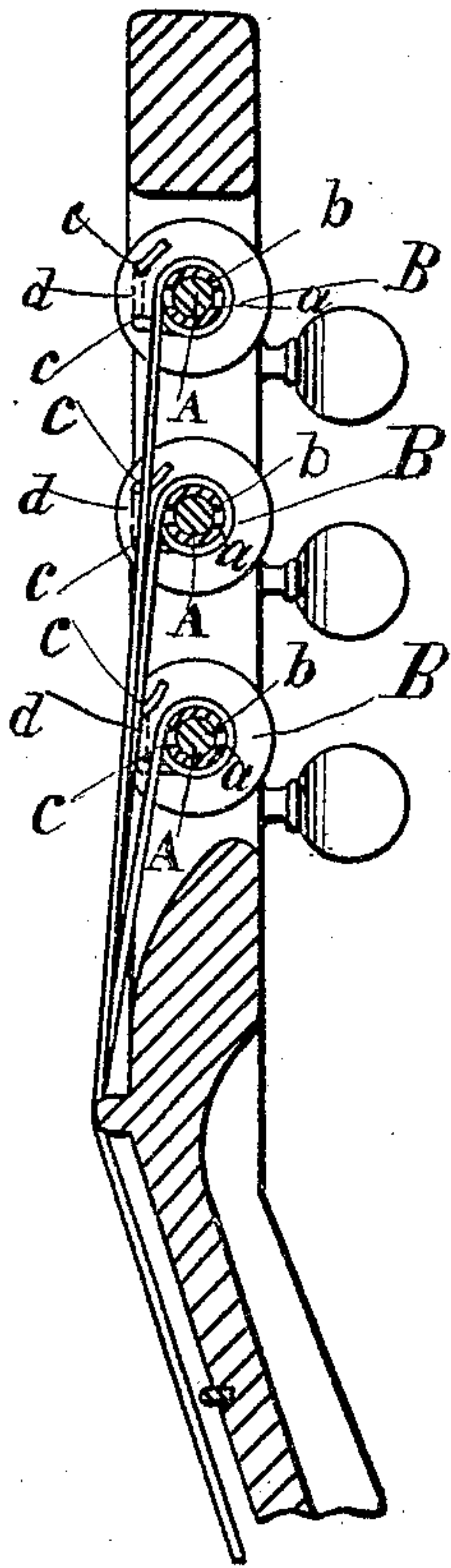


Fig. 3.

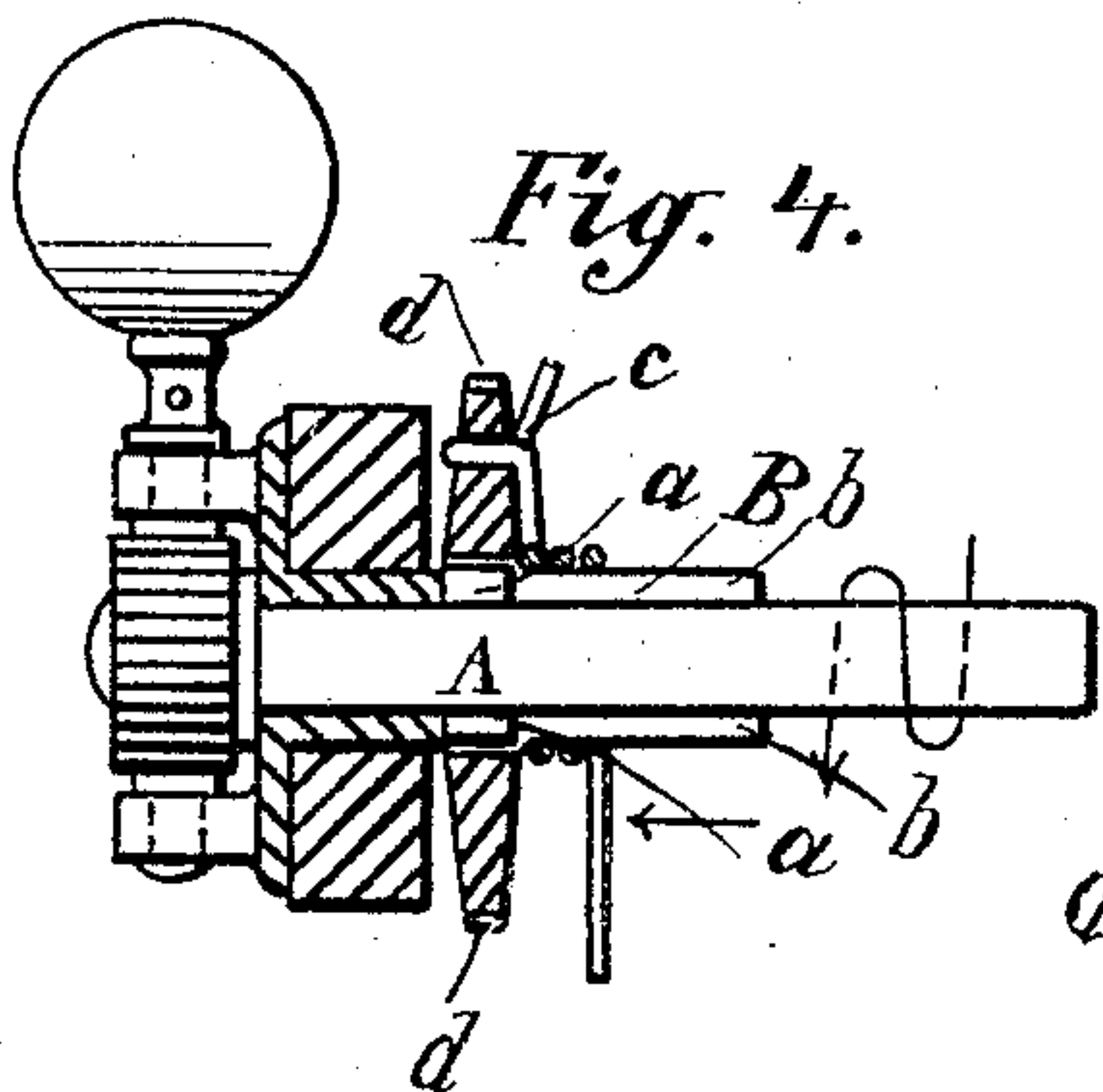
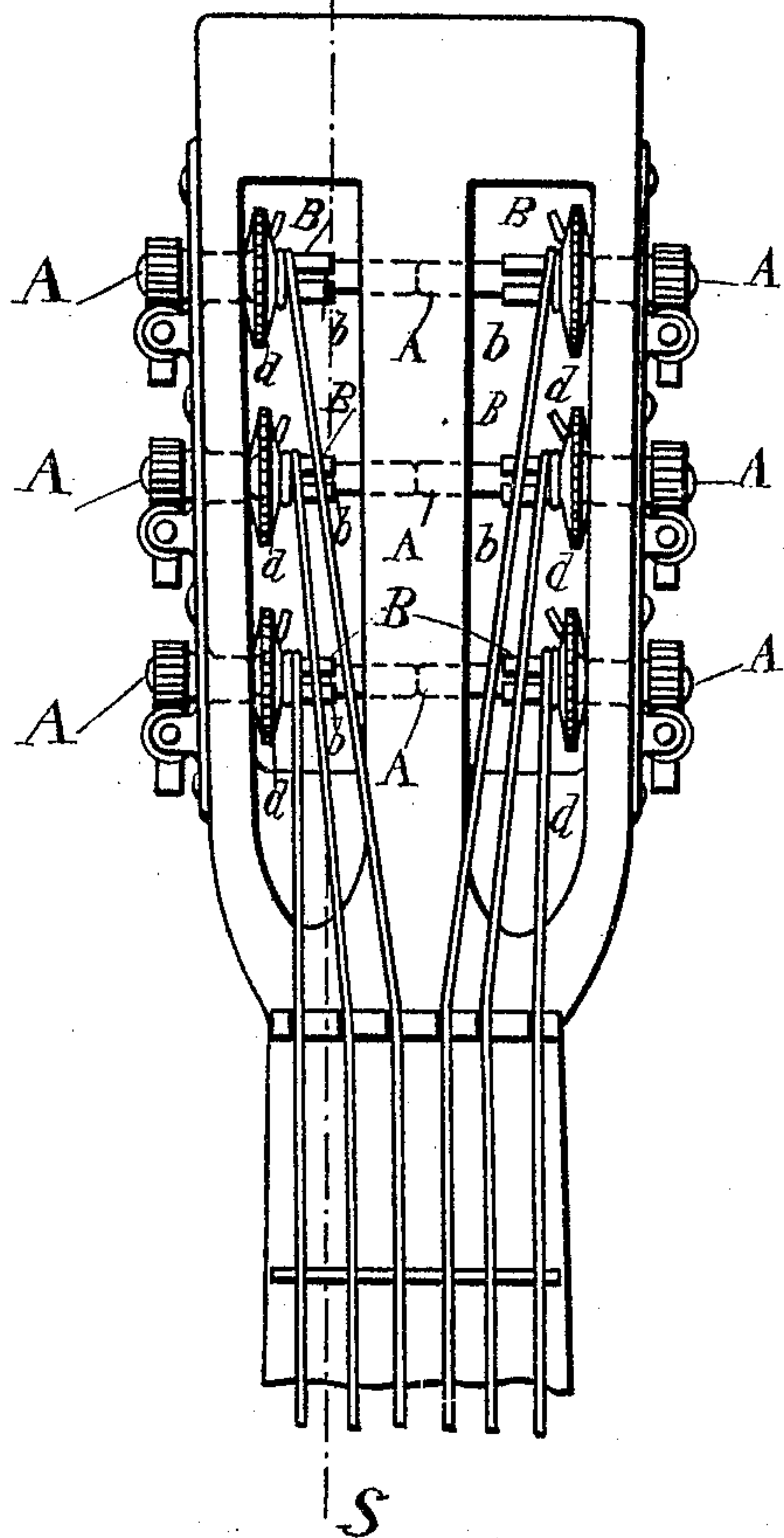


Fig. 4.

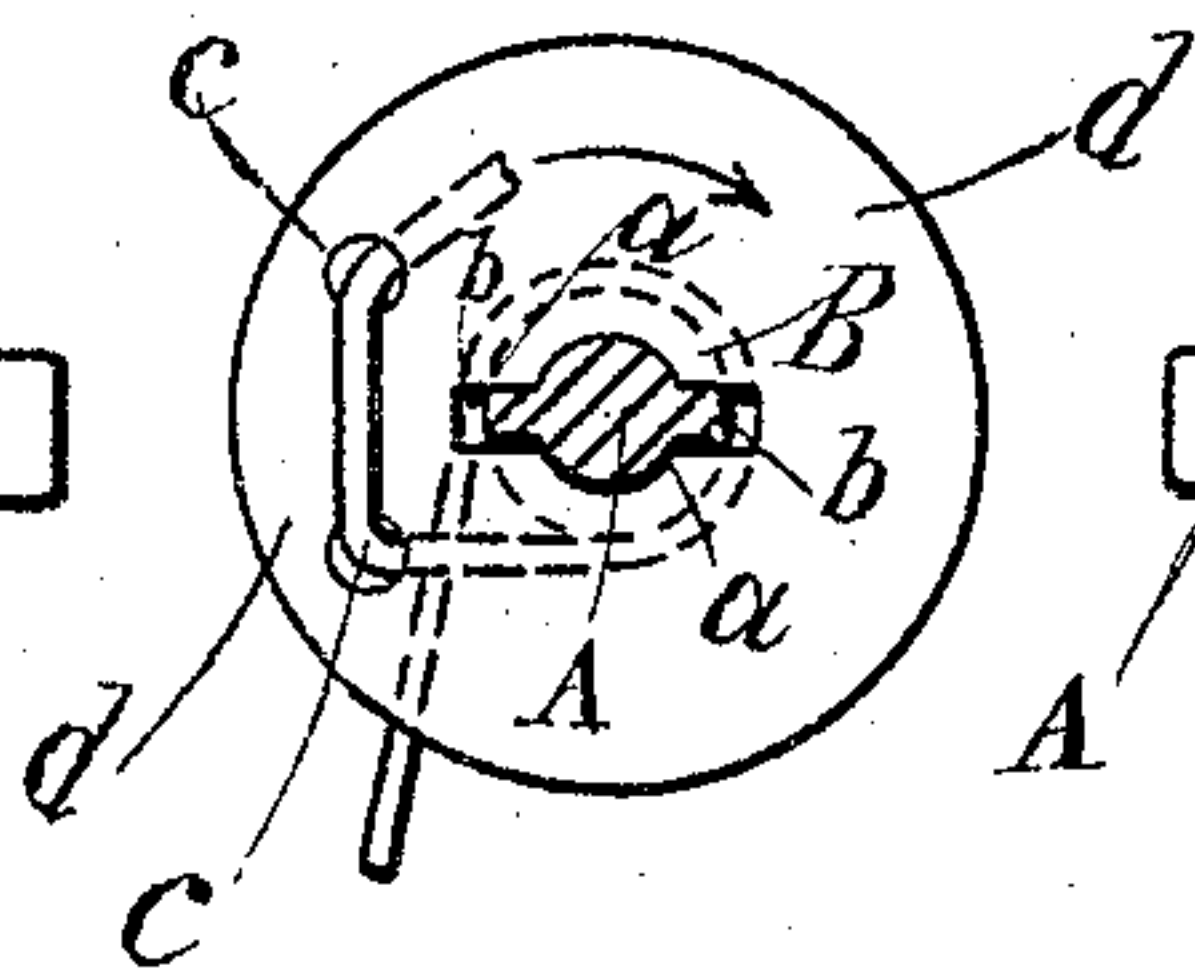


Fig. 5.

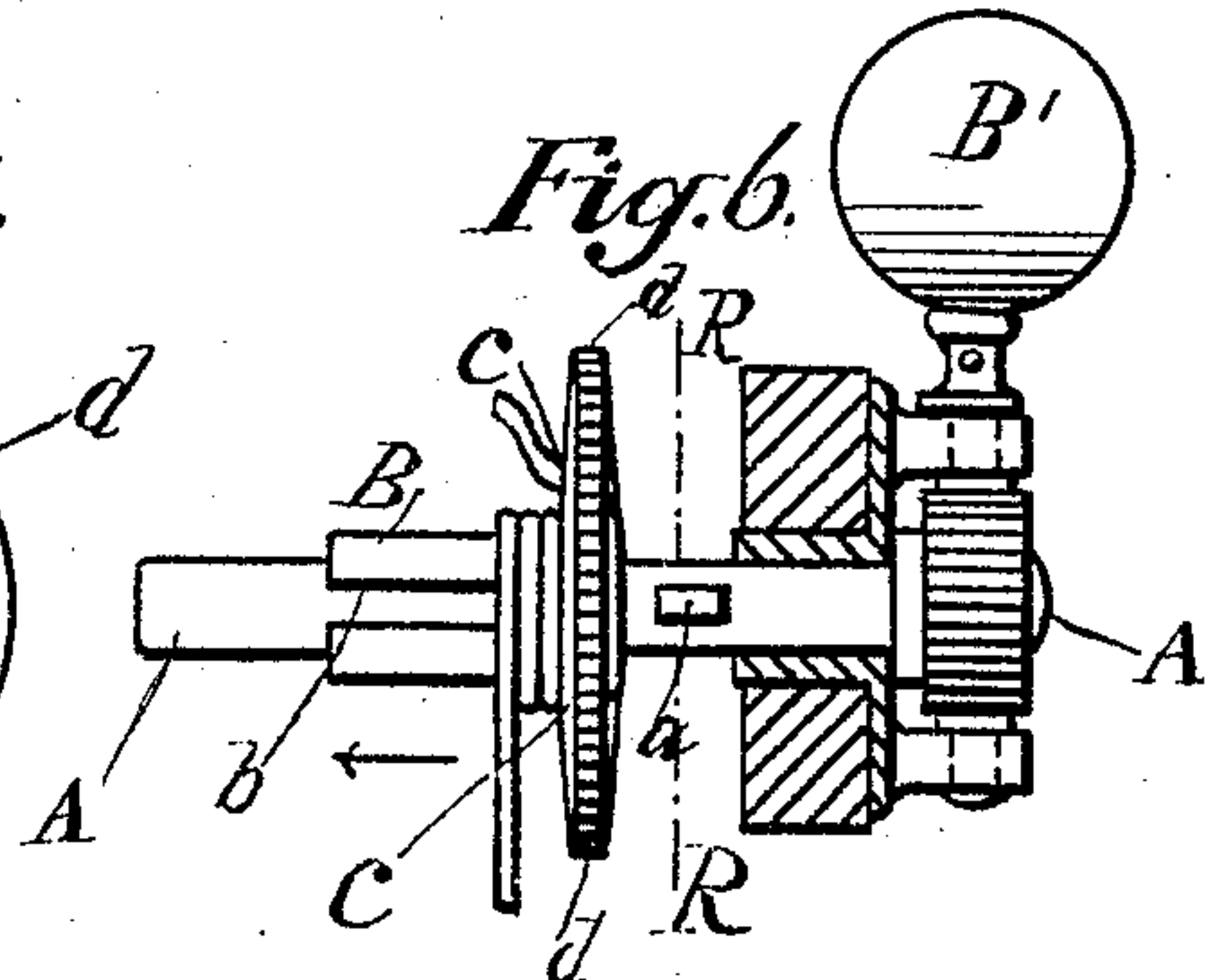


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

ERNST SIMON, OF MARKNEUKIRCHEN, GERMANY.

MANDOLIN, GUITAR, OR BANJO.

SPECIFICATION forming part of Letters Patent No. 575,071, dated January 12, 1897.

Application filed May 22, 1896. Serial No. 592,612. (No model.)

To all whom it may concern:

Be it known that I, ERNST SIMON, a subject of the King of Saxony, residing at Markneukirchen, in the Kingdom of Saxony, German Empire, have invented certain new and useful Improvements in Mandolins, Guitars, and Similar Instruments, of which the following is a full, clear, and exact description.

The present invention relates to mechanism for tightening and loosening the strings of mandolins, guitars, banjos, and similar instruments; and it consists of the details of construction hereinafter described, and more particularly pointed out in the claims, and in order to render the present specification more easily intelligible reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a part side elevation of the upper end of a guitar; Fig. 2, a vertical section on the line S S of Fig. 3; Fig. 3, a front view of Fig. 1; Fig. 4, a part section taken along a plane parallel to the axis of one of the pegs; Fig. 5, a section on line R R of Fig. 6; and Fig. 6, a plan view of one of the pegs with the winding mechanism, the latter three figures being drawn to an enlarged scale.

Instead of winding the string on the peg, the same is wound on a sleeve B, adapted to slide on the peg A, which latter may be turned by means of a worm and worm-wheel, as clearly shown at Fig. 1. The sleeve B is provided with a series of slots *b*, arranged longitudinally of the same, Figs. 4 to 6, while the peg or spindle A has, at a point advantageously near the outer frame of the instrument, a projection *a*, adapted to engage in one of the slots of the sleeve B when the same is slid along the peg and to couple the said sleeve to the spindle A. Fast on the sleeve B or integral with the same is a disk *d*, having a milled edge and having a hole *c*, through

which the end of the string to be wound on the said sleeve is threaded. The disk may also have two holes and the string be threaded through one and back through the other, as indicated at Fig. 4.

The device operates in the following manner: If it be required to place a string in the instrument and tune the same, the end of the string is first threaded through and thus attached to the disk *d*, the latter being slid along the spindle A to disengage with the projection *a* of the latter, and the string is then wound on the sleeve with the hand until it has become partially tight, *i. e.*, until all the slack has been wound up. The sleeve B is then slid along the spindle until one of its slots *b* engages over the projection *a* of the spindle A, when the string may be tuned and sufficiently tightened by means of the thumb-piece B' and worm and worm-wheel.

I claim as my invention—

1. A device for winding and tightening up the strings of string instruments consisting of a spindle A and means for rotating the same a sleeve B having milled disk to receive the string end and means for coupling said sleeve to the said spindle substantially as described.

2. The combination of the spindle A and means for rotating the same, a sleeve B to slide on said spindle, a disk *d* fast on said sleeve and having holes for the reception of the string end slots *b* longitudinally arranged in said sleeve and a projection *a* on spindle A to engage said slots substantially as described.

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

ERNST SIMON.

Witnesses:

MAX ANDORFF,
FRANZ HAMM.