

E. P. READE.
Improvement in Bed Bottoms.

No. 121,729.

Patented Dec. 12, 1871.

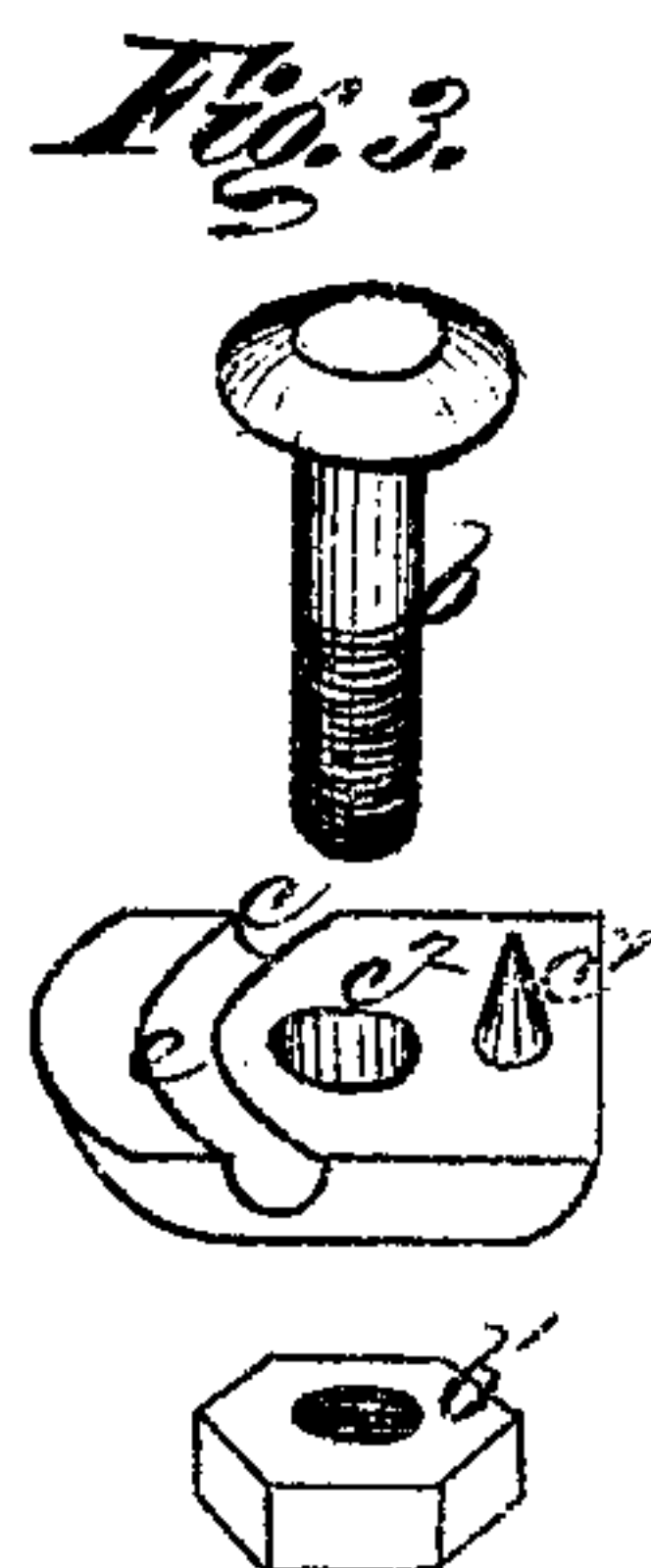
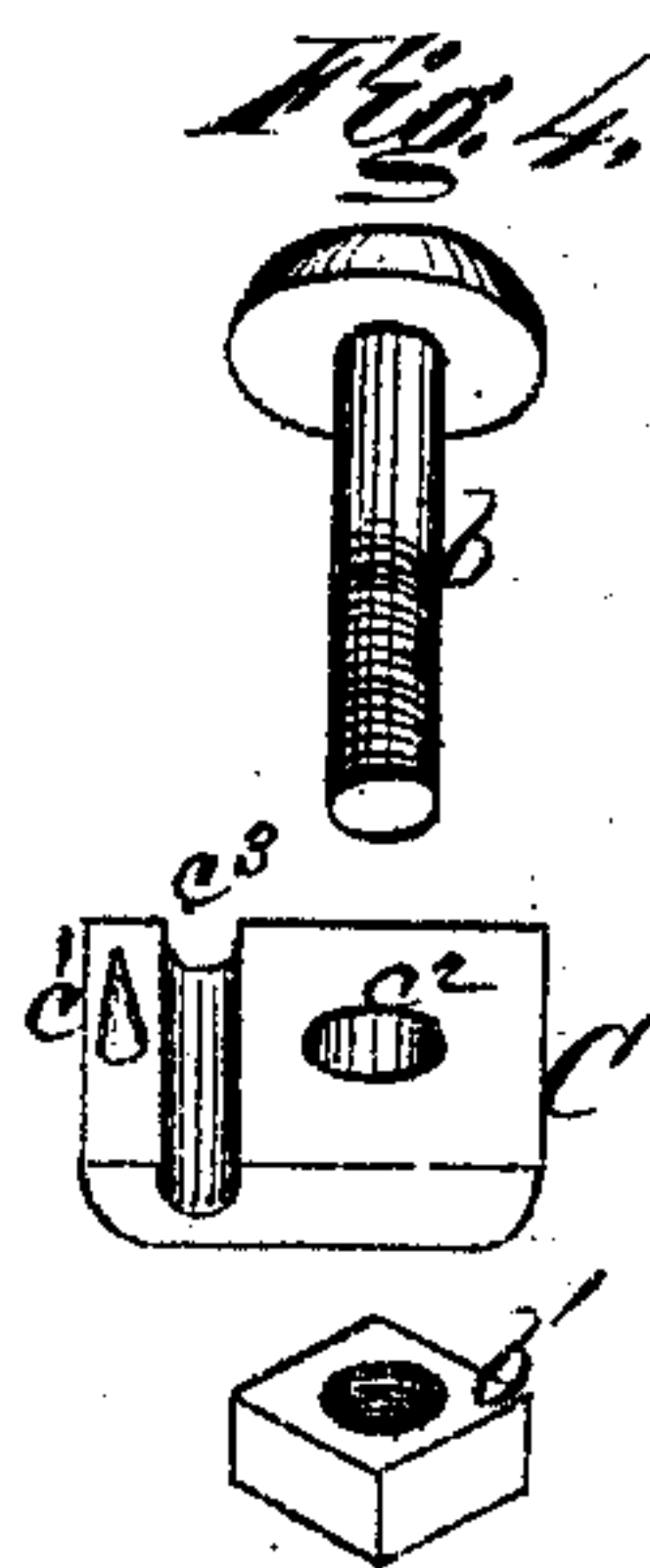
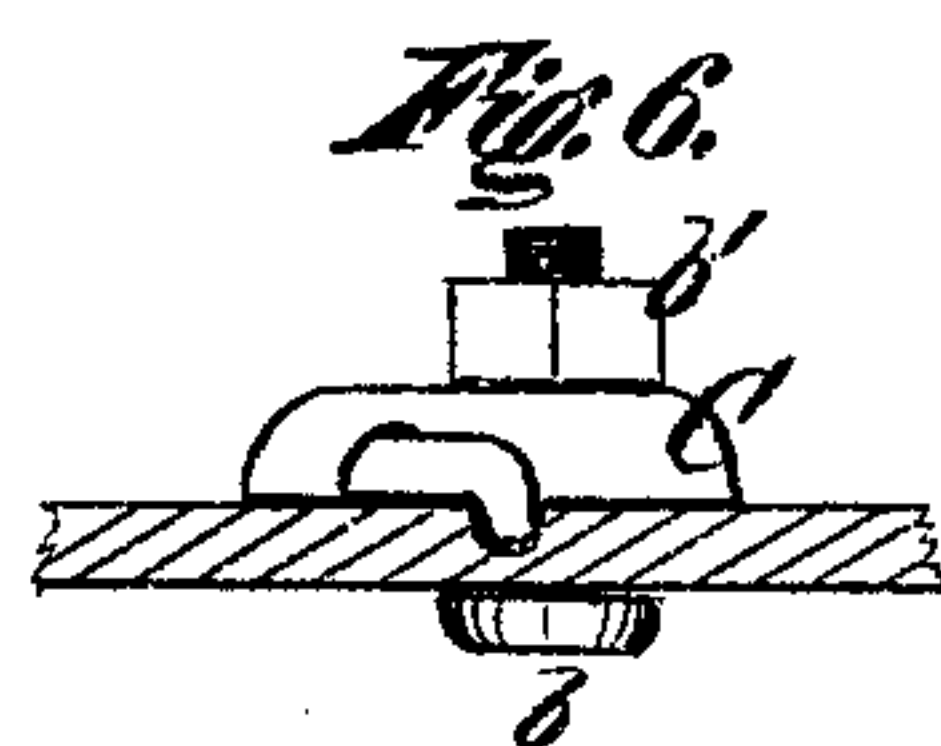
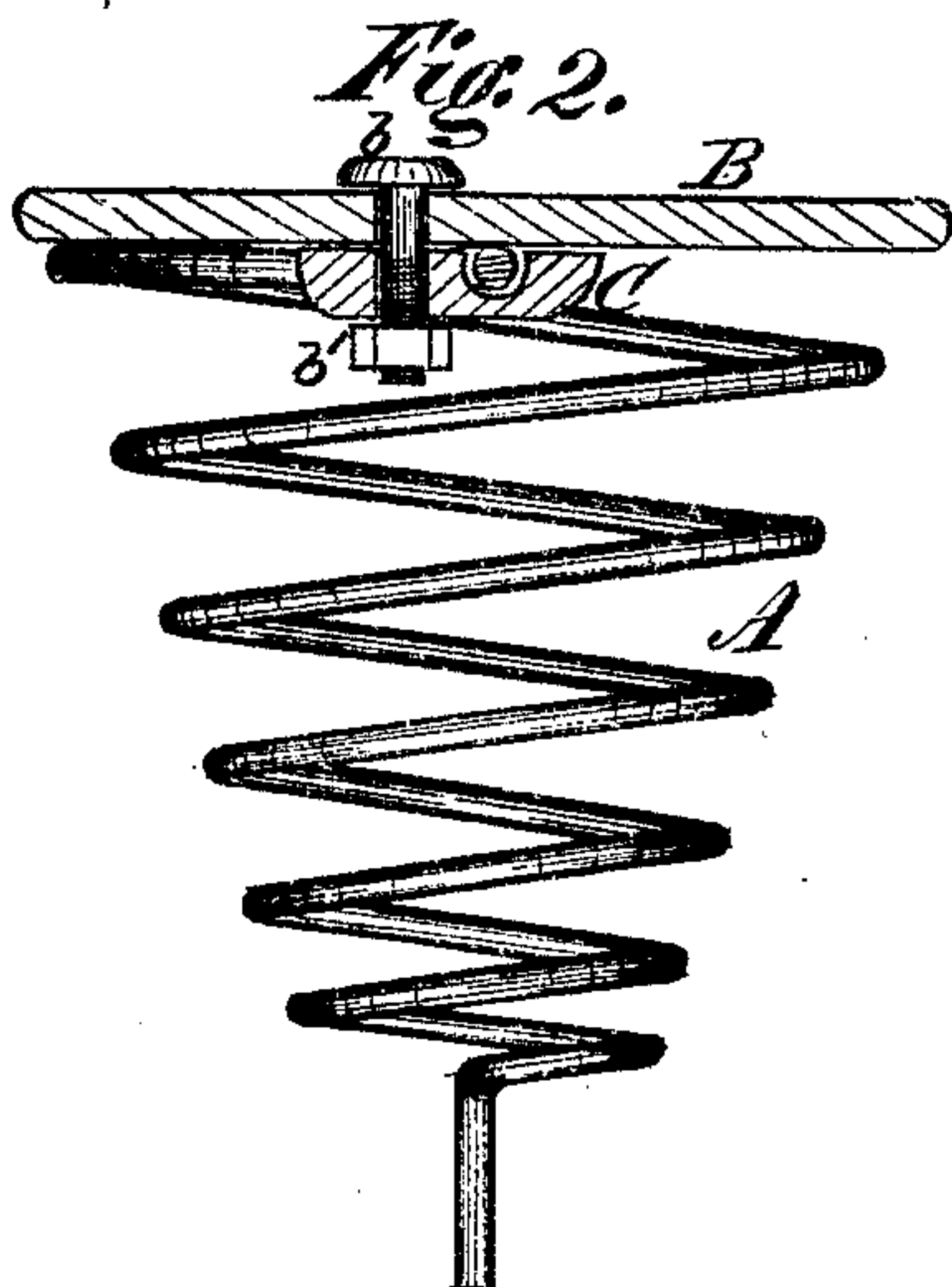
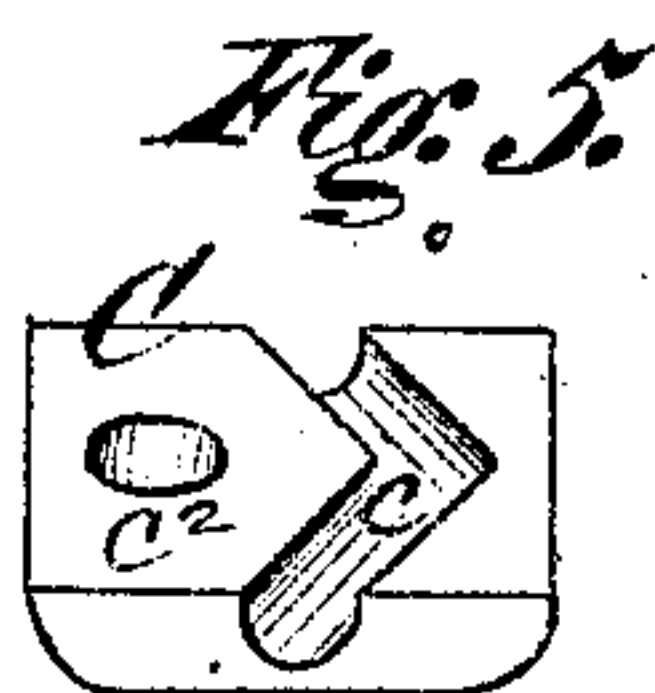
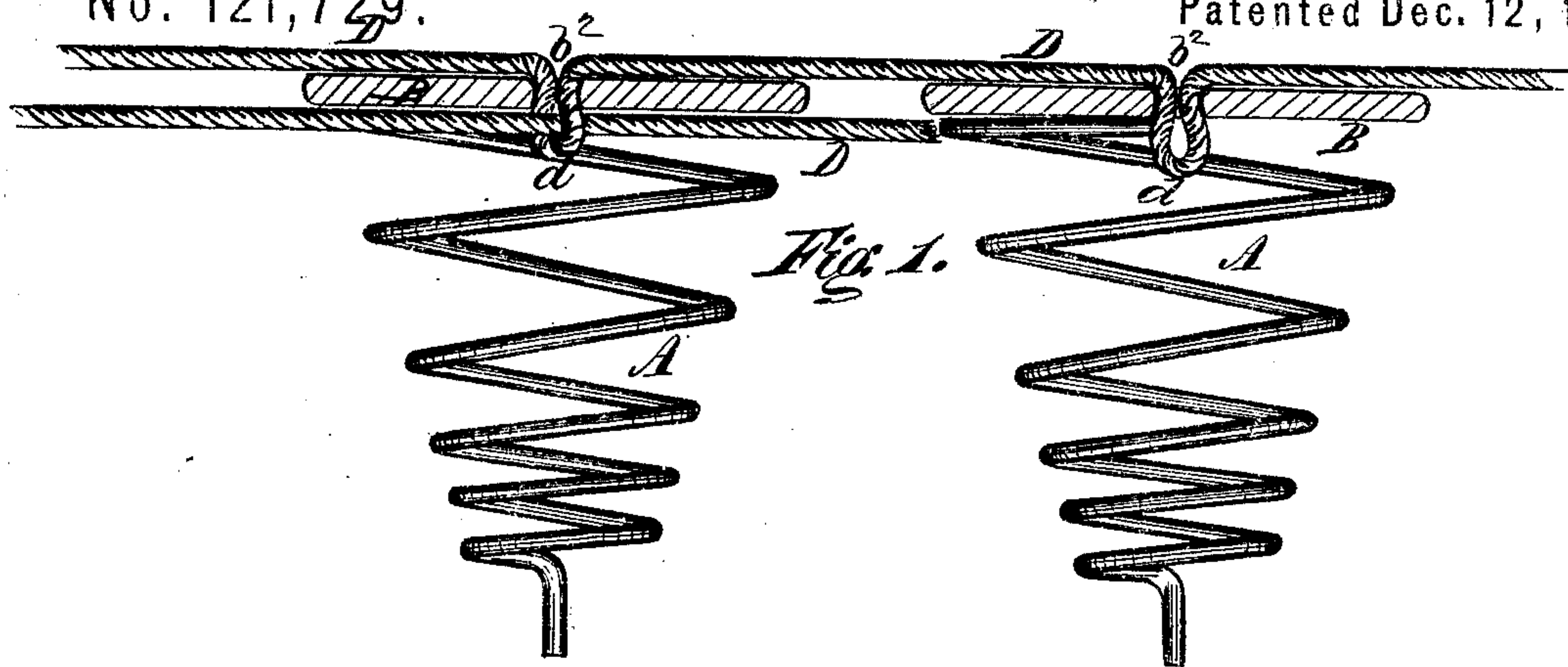
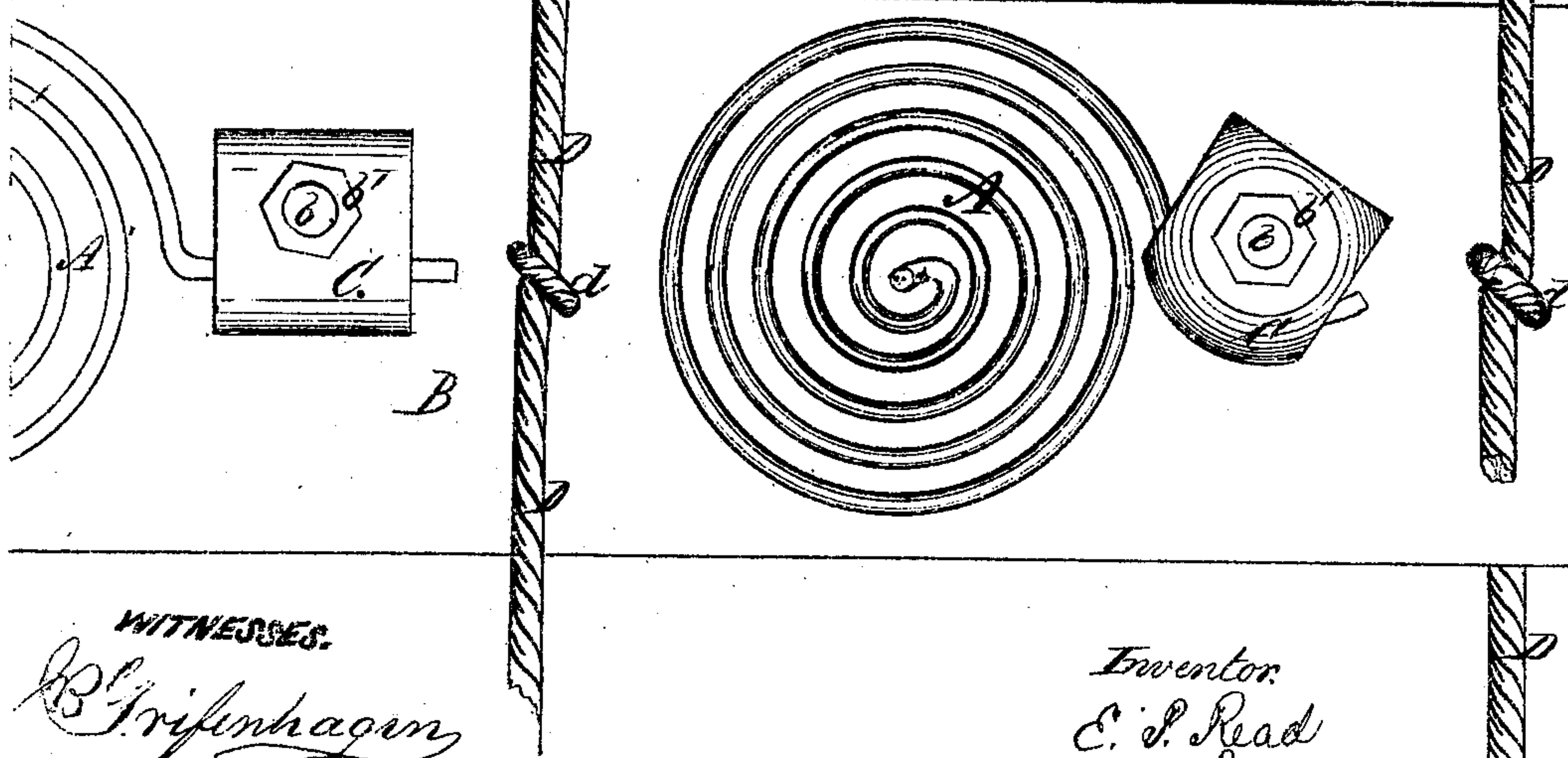


Fig. 7.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. 121,729, dated December 12, 1871.

To all whom it may concern:

Be it known that I, ELIAS P. READ, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and Improved Bed-Bottom, of which the following is a specification:

My invention has reference to that class of spring bed-bottoms in which spiral springs are employed to support slats upon which the mattress or bed rests; and consists in an improved method of securing the springs to the aforesaid slats by means of a metallic clamp and bolt, and also in the manner of fastening the slats one to another—all as hereinafter described.

In the drawing, Figure I is a cross-section of a portion of the bed-bottom, showing the arrangement of the cord for uniting the slats; Fig. II, a cross-section of the slat and clamping device. Figs. III, IV, and V, respectively, are perspective views of the clamp and bolt; Fig. VI, a view of the clamp, showing the projecting end of the spring bent down. Fig. VII is a plan of one of the slats reversed.

A represents an ordinary spiral spring, which may be of any form in common use. This spring is attached to the longitudinal slat by means of a bolt, *b*, and nut *b*¹, the bolt *b* passing through the slat B and base or clamp-piece C. This clamp-piece consists of a cast or stamped piece of metal provided with a groove, *c*, for the reception of the end of the wire forming the spring, and with a lug or nipple, *c*¹, made to penetrate into the slat B to prevent the spring A from turning. A hole, *c*², is also made for the passage of the bolt *b*. It is obvious that the groove *c* may be either straight, as *c*³, or of different curved forms, as shown in Figs. III and V, the curved form being decidedly preferable for the reason that it prevents the possibility of the spring slipping out of the clamp. The slats B are connected transversely of their length by means of the cord D, formed into a loop, *d*, in passing each slat, which loop is inserted through a hole, *b*², in the slat, and is prevented from being again withdrawn from said hole by bringing the cord around the slat and through the loop, as shown in Fig. I.

The method of attaching the springs to the slats is as follows: The desired position of the spring on the slat is first marked; the spring is then placed as indicated, and the clamp-piece C is fitted on the end of the wire. The bolt *b* is

afterward inserted through a hole previously bored in the slat and through the hole *c*² in the clamp-piece C. The nut *b*¹ being applied, the clamp-piece is screwed down in close contact with the slat, and the lug or nipple *c*¹ is at the same time forced into the wood of the slat, thus holding the spring firmly and preventing it from turning in either direction. Should the slats become bent and require the sides reversed, or it should be desired to remove the springs for any other reason, it is easily accomplished by simply unscrewing the nut *b*¹ and withdrawing the bolt *b*. The spring may then be applied with equal facility to the opposite side of the slat.

To connect the slats together by means of the cord D a suitable length of the cord is taken, and, after placing the slats at the proper distance apart, a loop is made in the cord at the point where it passes the hole *b*² in the slat. This loop is inserted through the hole and made to project a little above the slat. The cord is then passed to the next slat and the same operation repeated, and so on until all the slats have been gone over. The cord is afterward brought around over and passed through the loop in the end slat, and so on through the loop in each successive slat until all the loops have been secured, when the two ends of the cord are tied together, and the operation is finished. The two ends of the cord may also be fastened to the frame which supports the springs.

Among the advantages secured by my improved fastenings may be mentioned the ease and rapidity with which they can be applied or removed, and their security and durability in use. The simple unscrewing or tightening of a single nut is all that is requisite to secure or remove the spring, while the connecting or disconnecting of the slats one from another is effected with equal facility by untying and slipping out the cord. As the clamp-piece can be either cast or stamped its first cost is small, and its application to the slat by means of a bolt and nut requires the least possible amount of time. The curve in the clamp-piece prevents the spring from slipping out, and holds it with great firmness. By using the transverse connecting-cord the slats are made to act in unison to support any superimposed weight, and prevent any sudden and undue strain at one point. This method of connection is found to be at once cheap, convenient, and simple.

I am aware that springs have been attached to slats by means of a strip of metal passing over one end of the wire forming the spring and tacked or screwed to the slat; also, that bolts have been used passing through the slat, and a loop formed of the spring itself, and holding the latter in place by means of a nut; also, that the slats have been connected transversely by means of continuous bands, &c. Such devices, however, are not equivalents of those here presented.

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

1. A clamp-piece, C, provided with a straight, curved, or angular groove, *c*, in combination with a bolt, *b*, and nut *b*¹, for the purpose specified.

2. The connecting-cord D, formed into a loop, *d*, in passing each slat, which loop is inserted, through a hole, *b*², in the slat, and is prevented from being again withdrawn from said hole by bringing the cord around the slats and passing it through each loop in succession, in the manner shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ELIAS P. READ.

Witnesses:

J. B. GREIFENHAGEN,
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