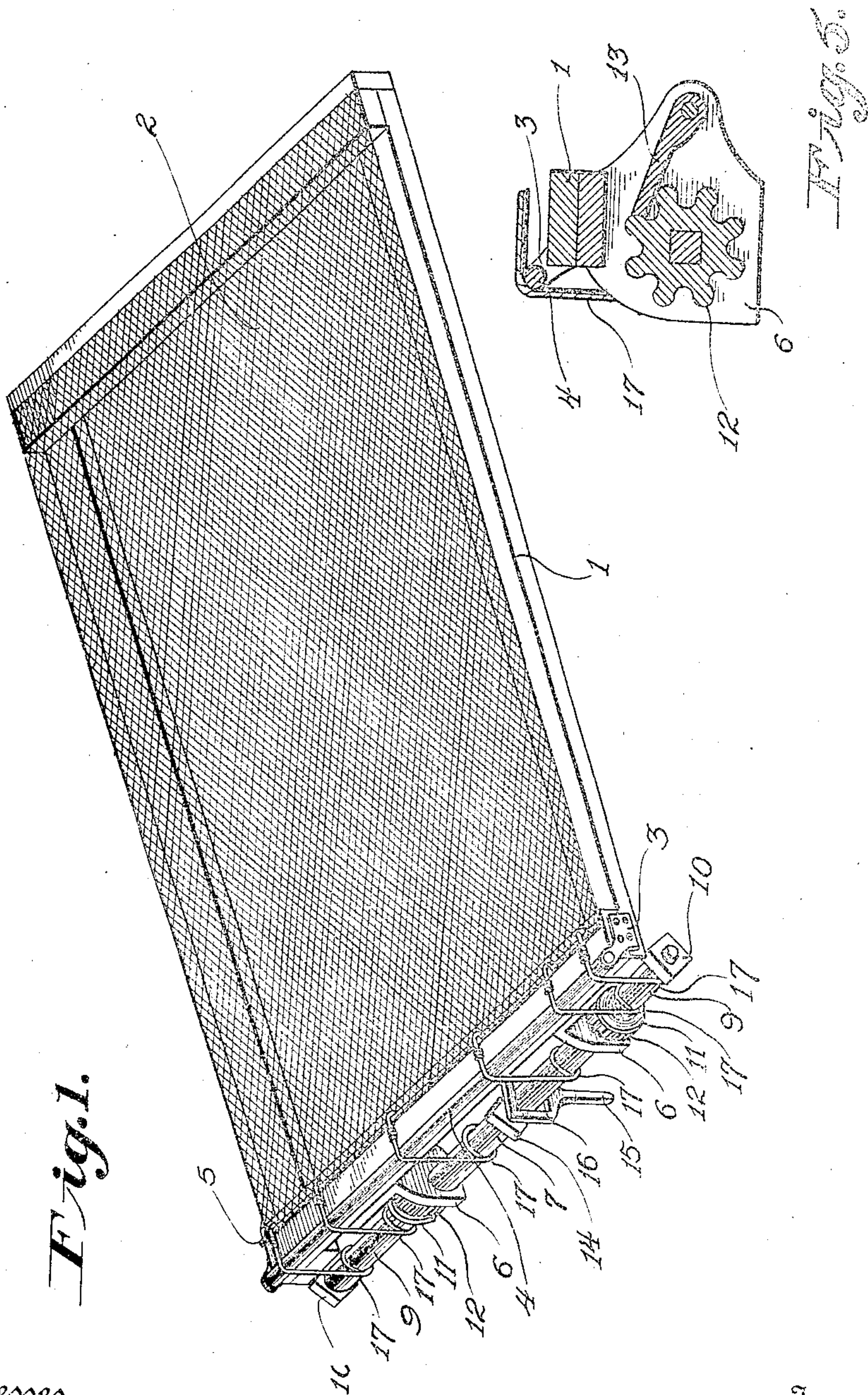


952,730.

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BED SPRING TIGHTENER.
APPLICATION FILED JUNE 23, 1909.

Patented Mar. 22, 1910.
2 SHEETS—SHEET 1.



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952,730.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 2.

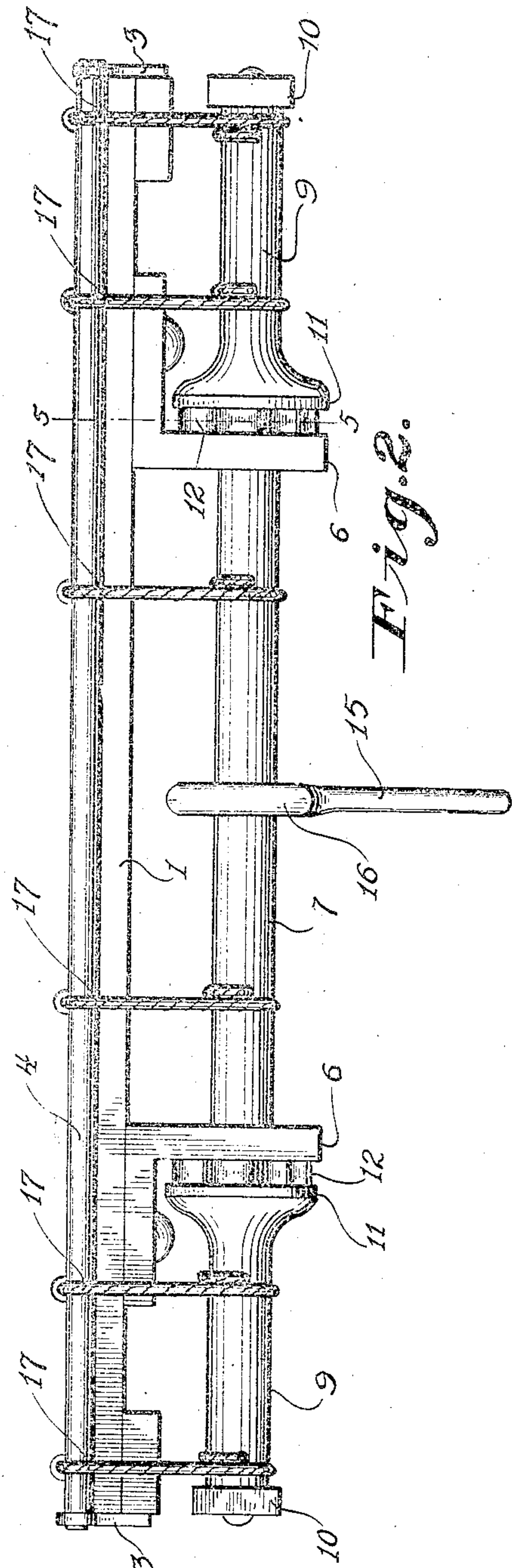


Fig. 2.

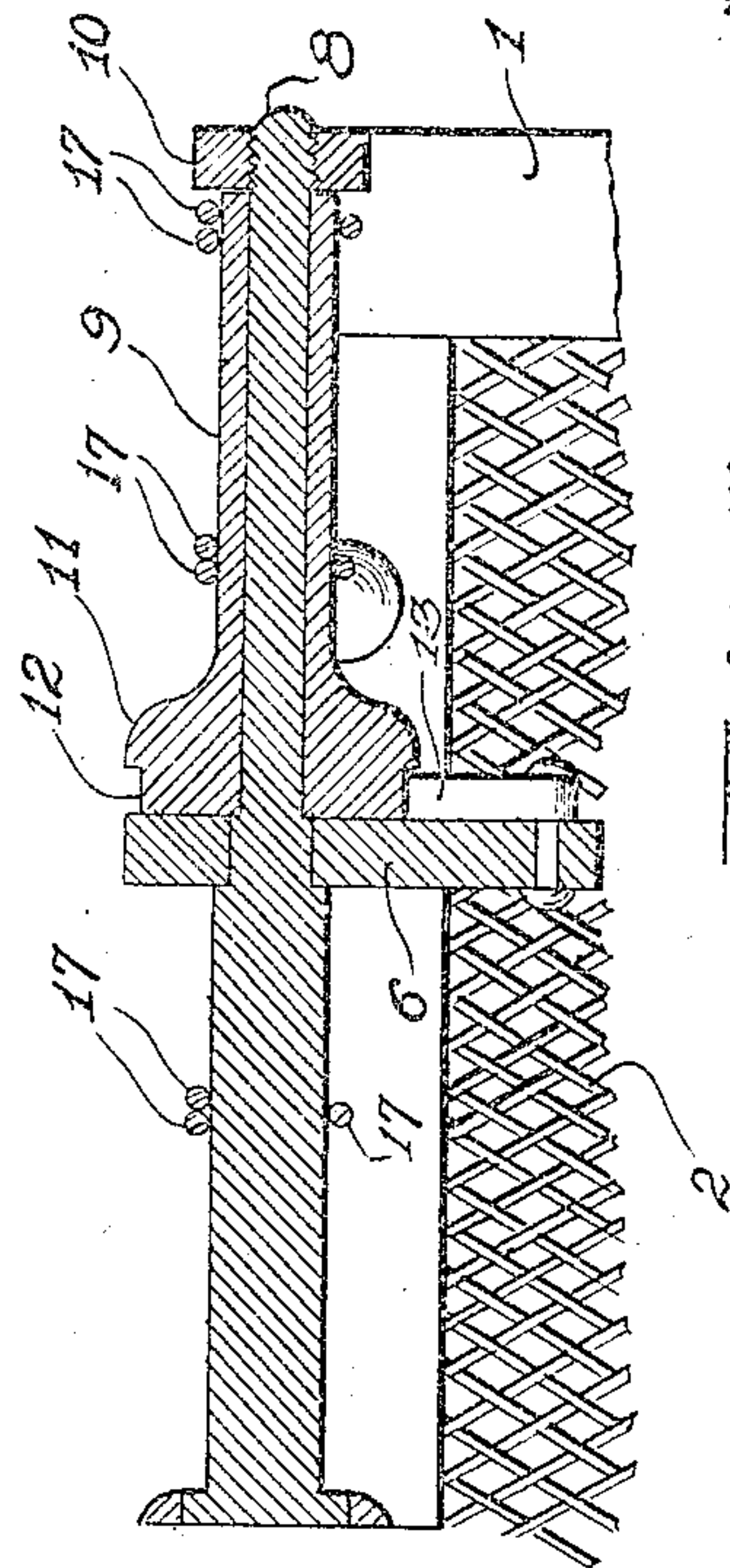


Fig. 4.

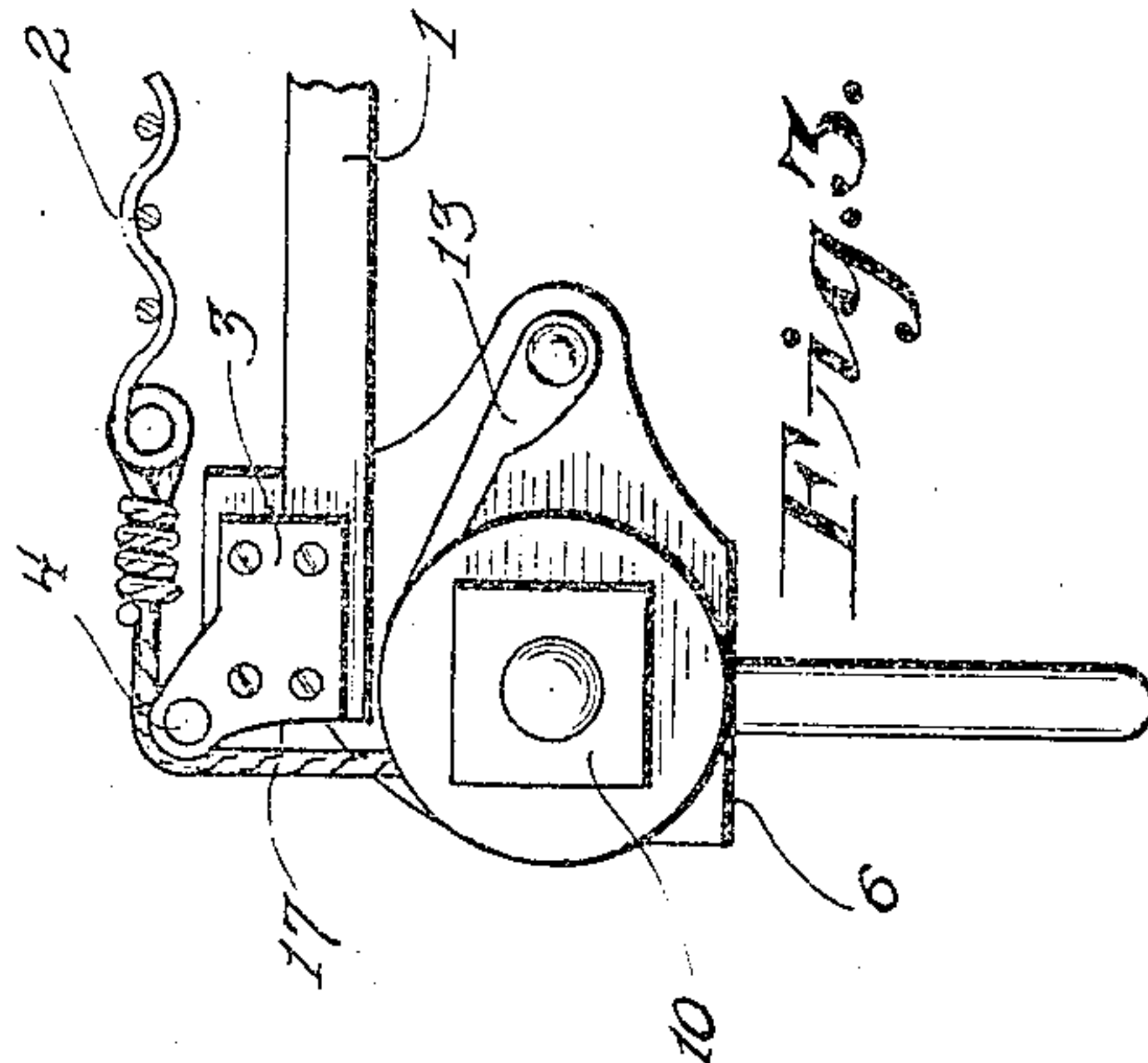


Fig. 3.

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UNITED STATES PATENT OFFICE.

GRAHAM B. ELLIOTT, OF BARTON, VERMONT.

BED-SPRING TIGHTENER.

952,731.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed June 23, 1908. Serial No. 503,931.

To all whom it may concern:

Be it known that I, GRAHAM B. ELLIOTT, a citizen of the United States, residing at Barton, in the county of Orleans and State of Vermont, have invented certain new and useful improvements in Bed-Spring Tighteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to bed spring tighteners, and has specially in view a device of the character described which is carried by the front end of the mattress frame and so located that it will not interfere with the use of the mattress, and at the same time will be readily accessible so that it may be operated to regulate the tension of the springs when necessary or desirable without the necessity of removing the mattress from a bed.

In carrying out the objects of the invention generally stated above it will, of course, be understood that the essential features thereof are susceptible of changes in details and structural arrangements, but one preferred and practical embodiment thereof is shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of a mattress showing the improved tightener or adjuster applied thereto. Fig. 2 is a view in front elevation thereof. Fig. 3 is an end view of a portion of the mattress frame and the tightener. Fig. 4 is a detail sectional view of the shaft of the tightener. Fig. 5 is a central vertical sectional view of the tightener taken on the line 5—5, Fig. 2.

Referring to said drawings by numerals 1 designates the usual rectangularly shaped mattress frame to the rear end of which the fabric mattress 2 is permanently secured. The front end of said frame carries two upstanding bearing lugs 3, one of the same being located at each corner of the upper end of the frame and form end bearings for a roller 4 which extends entirely across the front end of said frame. The front end of said mattress is provided with a spreader rod 5, the function of which will be more fully set forth later.

Vertically arranged spaced apart hanger bearings 6 depend from the underside of the front member of the mattress frame and provide the necessary supports for a rotatable shaft 7 the intermediate portion of which is enlarged and arranged between said

bearings 6 and the end portions of which are reduced in diameter and squared and project beyond said bearings and have their extreme ends threaded as indicated at 8. A sleeve 9 is fitted tightly over the reduced ends of said shaft 7 and are held thereon by means of the lock nuts 10 which engage with the threaded ends of said shaft, said nuts also serving as a means by which said shaft may be rotated by a suitable turning tool such as a wrench or the like when necessary, as will presently appear. The inner ends of said sleeves terminate in enlarged annular flanges 11 the inner faces of which carry a ratchet disk 12 which abuts against the hanger bearings 6. A pawl 13 carried by each hanger bearing 6 normally prevents said disks from rotating in one direction.

The central portion of the shaft 7 is provided with a nut formation 14, and said shaft also has mounted thereon a turning tool 15 the rectangularly shaped head 16 of which may be engaged over said nut formation 14 to rotate the shaft.

The spreader rod 5 of the mattress 2 carries a plurality of cables 17 which are regularly spaced apart and pass over the roller 4 and have their ends wound about the said sleeves 9 and the central portion of the shaft 7.

It will be seen from the foregoing that when the shaft 7 is rotated either by means of a tool applied to the end nuts thereof, or by means of the tool carried by said shaft, the cables 17 will be wound about said shaft and sleeves so as to tighten the mattress, and through the described ratchet disks and co-operating pawls, said shaft will be prevented from rotating to a mattress-loosening position.

Obviously, the arrangement of the tightening device is such that it is below the head or front of the mattress frame so that it does not interfere with the said frame being freely used in beds of various types.

Another distinctive feature of the invention is in the use of the roller across the front of the frame, by means of which the danger of cutting or otherwise damaging the cables is obviated.

What I claim as my invention is:—

A device of the character described comprising a mattress frame, a mattress carried thereby, hanger bearings depending from the front end of said frame, a shaft mounted in said bearings and having reduced ends

which project beyond the same, a sleeve mounted upon the reduced ends of said shaft, lock nuts for holding said sleeves thereon, a ratchet disk carried by each sleeve, a pawl carried by each hanger bearing for engagement with said ratchet disks to prevent rotation of said shaft in one direction, a roller projecting across the upper surface of the front end of said frame, and cable connec-

tions from said mattress passing over said 10 roller and having their outer ends wound about said shaft and said sleeves.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GRAHAM B. ELLIOTT.

Witnesses:

P. L. WEBSTER,
W. W. RINDEN.