Mar. 6, 1923. 1,447,294

W. J. COLE

BED BOTTOM

Filed May 14, 1921

Fig. 1.

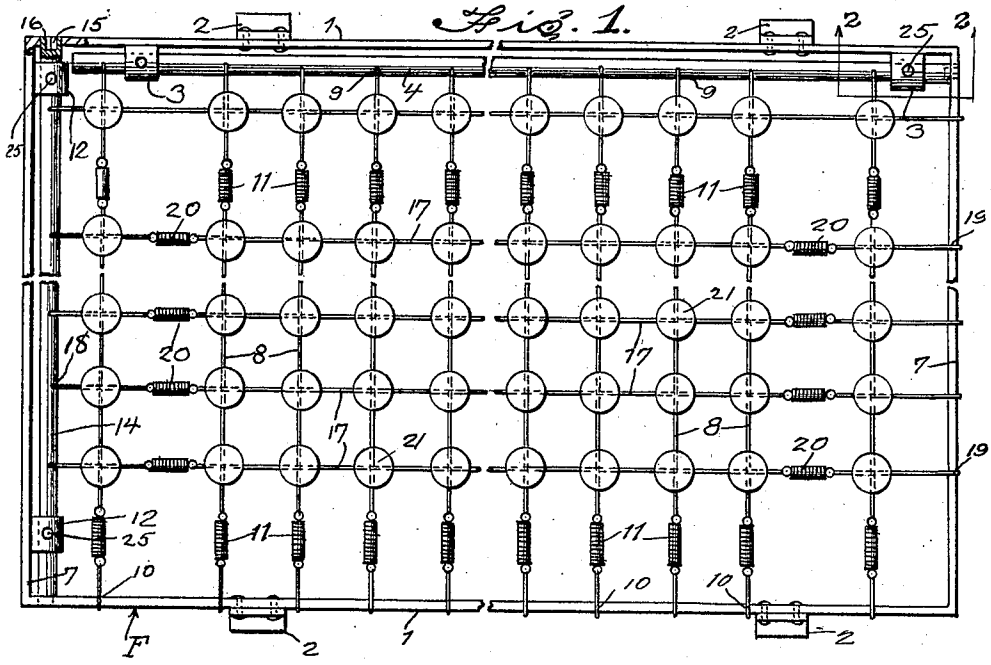


Fig. 2.

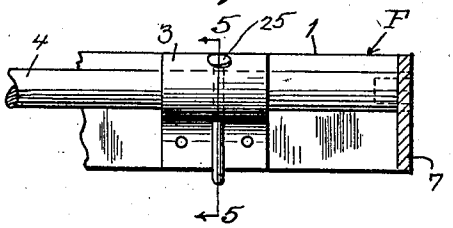


Fig. 3.

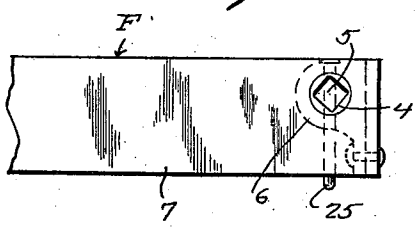


Fig. 5.

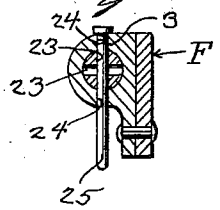
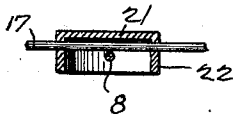


Fig. 4.



Inventor

W. J. Cole.

By Watson E. Coleman Attorney

Patented Mar. 6, 1923. 1,447,294

UNITED STATES PATENT OFFICE.

WALTER J. COLE, OF BRISTOL, VIRGINIA.

BED BOTTOM.

Application filed May 14, 1921. Serial No. 469,532.

To all whom it may concern:

Be it known that I, WALTER J. COLE, a citizen of the United States, residing at Bristol, in the county of Washington and State of Virginia, have invented certain new and useful Improvements in Bed Bottoms, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in bed bottoms and has relation more particularly to a novel and improved device of this general character embodying a fabric having associated therewith means whereby said fabric may be tightened in accordance with the requirements of practice.

It is also an object of the invention to provide a novel and improved device of this general character embodying a fabric comprising a plurality of series of strands, the strands of one series overlying the strands of the second series, together with means associated with the overlying portions of the strands for maintaining said strands in desired assembly and at the same time permitting one series of strands to have endwise movement independently of the strands of the second series.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved bed bottom whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will be hereinafter definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in top plan of a bed bottom constructed in accordance with an embodiment of my invention,

Figure 2 is a fragmentary view partly in section and partly in elevation illustrating one of the winding shafts herein disclosed together with means for holding said shaft against rotation,

Figure 3 is a fragmentary end elevational view of the construction as illustrated in Figure 2,

Figure 4 is a fragmentary view partly in cross section and partly in elevation taken through one of the coupling or tie members as herein disclosed, and

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2.

As disclosed in the accompanying drawings, F denotes a frame of desired dimensions, the side members 1 of which are provided with the outstanding brackets 2 whereby the frame may be readily and effectively supported by the side rails of a bed structure.

One of the side members 1 of the frame F adjacent the opposite ends thereof is provided with the outwardly directed bearings 3 which rotatively support a shaft 4. One portion of the shaft 4 is provided with a socket 5 angular in cross section, and in which is adapted to be engaged a suitable implement for rotating said member when required. The end portion of the shaft 4 provided with the socket 5 is aligned with an opening 6 provided in the adjacent end member 7 of the frame F.

Extending transversely of the frame F are the strands 8, each of said strands having one end portion secured, as at 9, to the shaft 4, while the opposite end portions of said strands are secured, as at 10, to the side member 1 of the frame remote from said shaft 4. Interposed in the opposite end portions of the strands 8 are the coil springs 11. One of the end members 7 adjacent its opposite end is also provided with inwardly directed bearings 12 which rotatably support a shaft 14. The shaft 14 is provided in one end portion with a socket 15 angular in cross section and which registers or aligns with an opening 16 in the adjacent side member 1 of the frame whereby a suitable implement may be engaged with the shaft 14 for rotating the same. Extending longitudinally of the frame F are the strands 17, each of said strands having one end portion secured, as at 18, to the shaft 14, while the opposite end portions of each of said strands are suitably secured, as at 19, to the end member 7 of the frame remote from the shaft 14. The opposite end portions of each of the strands 17 also have interposed therein the coil springs 20.

The end portions of the strands 8 and 17 outwardly of the springs 11 and 20 are readily flexible so that the same may be wound around the coacting shafts 4 or 14. In practice it is preferred that the strands 8 and 17 be of wire and in which event the

portions of the strands outwardly of the springs will be of a softer material than the major portion of said strands.

The strands 8 and 17 are in overlying or overlapping relation. Associated with each overlying or overlapping portion of the strands 8 and 17 is a disk 21 positioned above said strands. The disk 21 is defined by a depending flange 22 through which the strands 8 and 17 are loosely directed.

The disks 21 operate to maintain the strands 8 and 17 in desired spaced relation yet offer no undue obstruction to said strands when the shafts 4 and 14 are rotated to place the strands 8 and 17 under proper tension. By requisite rotation of either of these shafts 4 or 14, the fabric afforded by the strands 8 and 17 may be maintained in the best possible condition for use and particularly to avoid sagging or kindred objections.

The portions of each of the shafts 4 and 14 within the coacting bearings 3 and 12 respectively have produced therethrough the openings 23, each of said openings being adapted to register with an opening 24 produced through a bearing 3 or 12 so that a pin 25 may be inserted through the registering openings 23 and 24 to lock the shaft 4 or 14 against retrograde rotation. It is to be understood that when either of the shafts 4 or 14 are rotated to impose tension on the strands 8 or 17, the pins 25 are removed.

From the foregoing description it is thought to be obvious that a bed bottom constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

1. A bed bottom comprising, in combination a frame, a fabric associated therewith, said fabric comprising two series of flexible strands, the strands of one series extending one across the other, disks overlying adjacent portions of the strands of both series, said disks being provided with depending flanges through which the strands are freely directed, and retractile members associated with the strands of both series.

2. A bed bottom comprising, in combination with a frame, a fabric associated therewith, said fabric comprising two series of flexible strands, the strands of one series, extending one across the other, disks overlying adjacent portions of the strands of both series, said disks being provided with depending flanges through which the strands are freely directed, and retractile members associated with the strands of both series, each of the retractile members of one series of strands being interposed between an adjacent pair of disks.

In testimony whereof I hereunto affix my signature.

WALTER J. COLE.