H. A. RUGGLES.

BED SPRING.

APPLICATION FILED NOV. 9, 1911.

1,040,767. Patented Oct. 8, 1912.

Fig. 1.

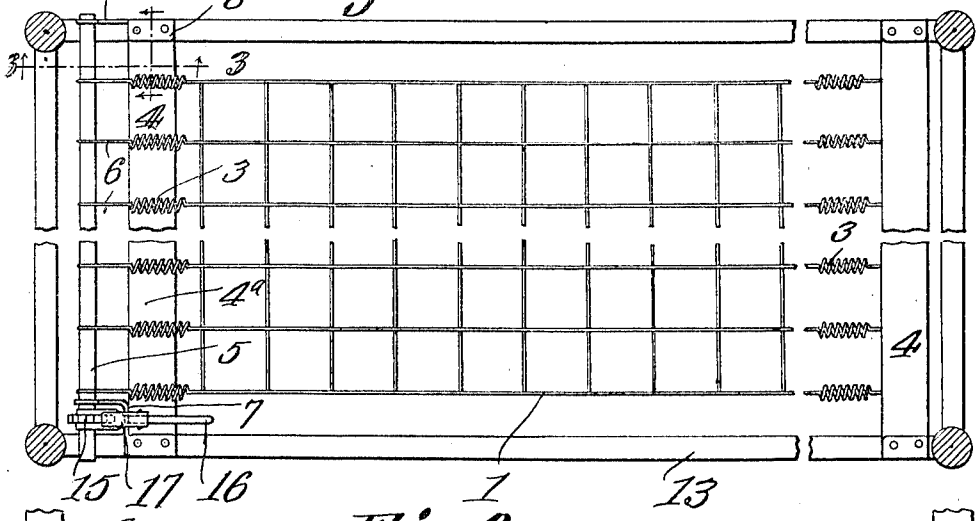
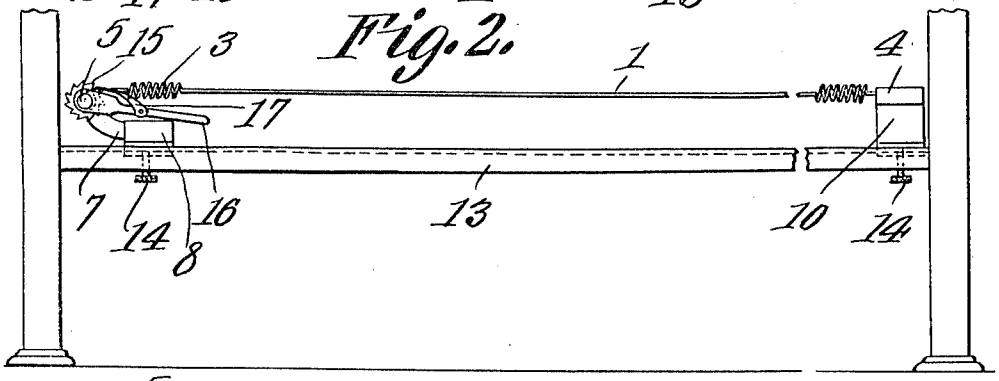


Fig. 2.



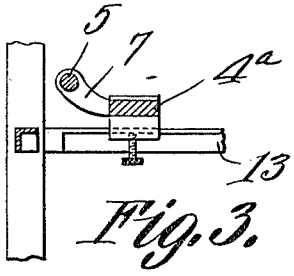


Fig. 3.

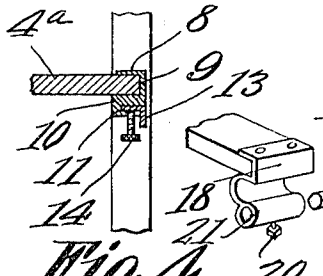


Fig. 4.

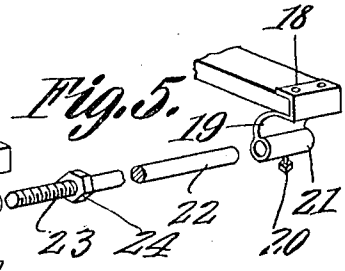


Fig. 5.

Witnesses

Frank B. Woodew.

L. H. Nelson.

Harry A. Ruggles,

Inventor,

by C. A. Snow & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

HARRY ALVAH RUGGLES, OF ST. JOSEPH, MICHIGAN.

BED-SPRING.

1,040,767. Specification of Letters Patent. Patented Oct. 8, 1912.

Application filed November 9, 1911. Serial No. 659,433.

To all whom it may concern:

Be it known that I, HARRY A. RUGGLES, a citizen of the United States, residing at St. Joseph, in the county of Berrien and State of Michigan, have invented a new and useful Bed-Spring, of which the following is a specification.

This invention pertains to improvements in beds, more especially that type wherein the mattress is held in stretched or suitable position by the aid of the tension or resilient action of springs.

The invention has for its object to provide for readily putting the mattress under suitably stressed or stretched condition for use.

A further object is to provide for adapting the bed for itinerary or portable use, as in a tent, in addition to its use in connection with the ordinary bedstead in a house.

A still further object is to provide for readily assembling and supporting the parts in position.

A still further object is to effect the ready tensioning or stretching of the mattress when putting the same in position for use.

A still further object is to carry out the aforesaid ends in a simple, expeditious, inexpensive and effective manner.

The invention consists of certain instrumentalities and features substantially as hereinafter fully disclosed and defined by the claim.

In the accompanying drawing illustrating the preferred embodiment of my invention, Figure 1 is a plan view thereof. Fig. 2 is a side elevation of the same. Figs. 3 and 4 are sectional views taken upon the lines 3—3, and 4—4 of Fig. 1 respectively. Fig. 5 is a broken perspective of another form or modification of my invention, especially as improvised for use in a tent, as more clearly disclosed later.

In carrying out my invention, I provide a mattress 1, which is of suitable material, and equip the same at its ends with suitable springs 3 preferably of the coiled or helical type. The springs at one end of the mattress are suitably connected to an end-bar 4, while the springs at the opposite end of the mattress are connected to a roll or shaft 5 by suitably extending the springs, as at 6, the resulting extensions 6 being secured to said roll or shaft. The shaft or roll 5 is suitably supported and journaled in position in the arms 7 of brackets 8, which arms, extend at right-angles to the trend of the latter or in the direction of the length of the bedstead. Said brackets have socket-like formations 9 to receive, and allow of their ready attachment to a second end-bar 4^a, suitable bolts or other fastenings being inserted through said brackets and said end-bar to aid in effecting such attachment. The socket-forming portions 9 of the brackets 8 are themselves extended to form additional arms 10, the lower portions of which are preferably enlarged, the resulting enlargements being provided with slots 11 which receive the horizontal portions of the side-rails of the bedstead 13, said side rails being preferably right-angled in transverse section.

The brackets 8 are suitably and removably connected or held upon the side-rails of the bedstead, preferably by means of set-screws 14 working in the additional arms 10 of said brackets and engaging said side-rails.

The roll or shaft 5 is provided with a ratchet-pinion 15, preferably at one end, and, upon the axis of this shaft or roll, at a point close to said pinion, is pivoted a manually operable lever 16 having a loosely connected or pivoted dog 17 adapted to engage said ratchet-pinion, whereby, by suitably actuating said lever, said pinion, with said roll or shaft, will be actuated for stretching or putting the mattress under tension as in initially assembling the parts, or in subsequently compensating for slack in the mattress, as will be readily understood.

In adapting the device especially for tent-use, the form of brackets as above described, may be substituted by the modified construction of brackets as shown in Fig. 5 and designated as 18 having a downwardly extended tubular-terminated arm 19 adapted to form a support for the end-bars and equipped with a set-screw 20, the tubular terminations being designated as 21. The tubular terminals receive within them the ends of rods 22, a rod being applied to each two-terminals at opposite sides of the device, and each rod has a screw-thread 23 thereon at one end, and a nut 24 engaging said screw-thread and adapted to abut against one of said tubular terminals, whereby, it will be noted that, as said nut is suitably actuated, so as to cause it to bear upon the adjacent tubular terminal while it, the nut, is being turned or manipulated, the stretching or tensioning operation may also be effected; set screws 20 are applied to the tubular terminals 21 of the brackets 18 for the

suitable retention of the rods 22 in position in said terminals.

It will be noted that this arrangement provides for supporting the mattress in elevated position from the floor, without the use of the ordinary bedstead or being attached to such, the members 19 serving as legs and thus displacing the use thereof as is greatly desirable within a tent, or its more convenient portability.

My invention, it is apparent, is characterized for its simplicity, and is accordingly relatively inexpensive of manufacture, is readily applied for use and is effective for its stated purpose.

What is claimed is:—

A device of the type described, including bed-rails, transverse bars, a wire-fabric forming a mattress connected to one of said transverse bars, a stretching roll for said mattress-forming wire-fabric, and brackets, each having an arm extending at right angles to the trend thereof, said arms forming supports for said stretching roll, said brackets having additional arms provided with sockets facing at right-angles to the trend of the aforesaid arms, and adapted to receive the ends of one transverse bar, said additional arms having enlarged lower portions provided with slots receiving the horizontal portions of the bed-rails.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HARRY ALVAH RUGGLES.

Witnesses:
FRANK L. PIXLEY,
LOUIS S. SCHULZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."