

(No Model.)

W. L. KEEPHART & J. C. HACKETT.  
BED BOTTOM.

No. 503,323.

Patented Aug. 15, 1893.

Fig. 1.

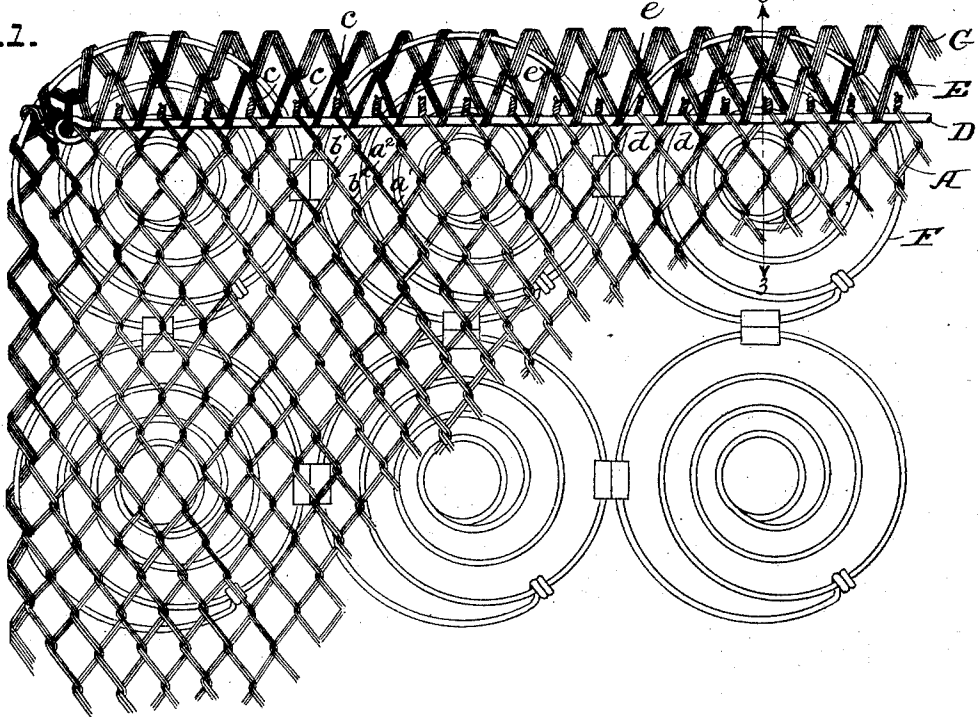


Fig. 2.

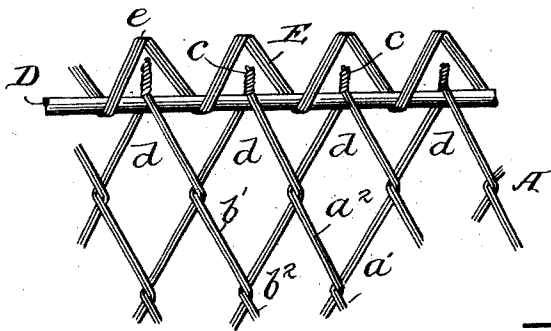


Fig. 4.

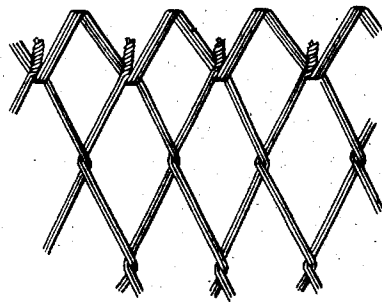
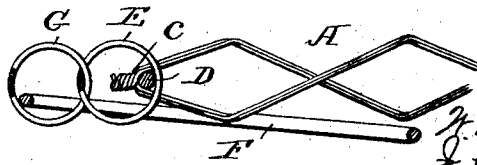


Fig. 3.



Witnesses  
Jno. G. Hinkel  
Will E. Hoff

Inventors  
W. L. Keephart  
J. C. Hackett  
By J. M. Watson Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM L. KEEPHART AND JACOB C. HACKETT, OF WILKES-BARRÉ,  
PENNSYLVANIA.

## BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 503,323, dated August 15, 1893.

Application filed June 12, 1893. Serial No. 477,265. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM L. KEEPHART and JACOB C. HACKETT, citizens of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Bed-Bottoms, of which the following is a specification.

Our invention relates to bed bottoms, and more particularly to that class in which a woven wire fabric is combined with spiral supporting springs.

The invention consists in a novel means for caging the rough projecting twisted ends of the coils of the fabric, and means for connecting said fabric to the spiral springs.

In the class of bed bottoms to which my invention belongs, the ends of the wire fabric which are at right angles to the individual coils or wires of which the fabric is composed are formed into a transverse series of loops by twisting together the ends of adjacent coils in successive pairs. These twisted ends form ragged projections which would injure bed clothing and other articles and it has been customary to bend them inward or to guard them in some suitable manner.

Our improved means for guarding the rough ends will now be described.

In the accompanying drawings, Figure 1 is a plan view of one corner of a bed bottom involving our invention. Fig. 2 is a view of a modification. Fig. 3 is a section on the line 3—3 of Fig. 1, and Fig. 4 is a view of an old caging device.

The woven wire fabric A is composed of spiral strands of wire intercoiled together in the usual manner. The ends of these strands are connected together in pairs by twisting them as shown at c. Thus the adjacent strands  $a^1, a^2$ , form one pair which are twisted together and the strands  $b^1, b^2$ , form another pair. There is thus formed a row of end loops  $d$ . It has heretofore been proposed to cage or guard the twisted ends  $c$  by passing an additional spiral through the end loops  $d$ , in which case the twisted ends would lie in the axial line of the spiral. By this arrangement, however, the rough twisted ends would

be exposed between the adjacent coils of the spiral as shown in Fig. 4, and a second spiral is required to sufficiently protect them.

In the present invention a straight wire or rod D is passed through the end loops  $d$  and the caging coil E is connected to the wire D at points between the loops  $d$  and also between the twisted ends  $c$ . One effect of this arrangement is that the twisted ends  $c$  are directly under and are protected by the outer bends  $e$  of the coil E, which bends form protecting arches over the rough ends. Another advantage is that the rod T distributes the strain which may be applied to any one part of it over a number of the loops  $d$  and thus prevents the untwisting of any of the ends  $c$ .

When it is desired to connect the fabric to a series of vertical spirals F as shown in Figs. 1 and 3 of the drawings, the additional coil G is used, said coil being intercoiled with the caging coil E and also at various points with the spirals F. As shown in the drawings, three or four turns of the outer coil G are connected to the upper turn of each spiral F and to the opposite turns of the caging coil E while the intermediate turns of the outer coil are simply connected to the caging coil.

Having described our invention, what we claim is—

1. A section of woven wire fabric having a series of parallel coils or wires intercoiled together and connected in pairs at each end by twisting together the free ends of the adjacent successive pairs, thereby forming at each end of the fabric a transverse row of loops  $d$  having rough ends  $c$  projecting beyond said loops, a rod or wire running through the row of transverse loops at each end of the fabric, and a caging coil extending across at each end of the fabric and united thereto by being coiled around said rod between the said end loops and twisted ends  $c$ , thereby caging at each end of the fabric the rough projecting twisted ends of the parallel wire coils, substantially as described.

2. A bed bottom consisting of a series of vertical spirals connected together, a woven wire fabric supported on said spirals and composed of a series of parallel wire coils in-

tercoiled together and connected in pairs at each end by spirally twisting together the adjacent ends of parallel coils, thereby forming at each end of the fabric a transverse row of  
5 loops *d*, wires or rods *D* extending across the ends of the fabric through the loops *d*, caging coils *E* intercoiled with the wires *D* between the loops *d*, and connecting coils *G* intercoiled with the caging coils and with

the supporting spirals, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM L. KEEPHART.  
JACOB C. HACKETT.

Witnesses:

H. BARRING,  
W. L. RAEDER.