

C. PENFIELD.

Bed-Bottoms.

No. 135,580.

Patented Feb. 4, 1873.

Fig. 1.

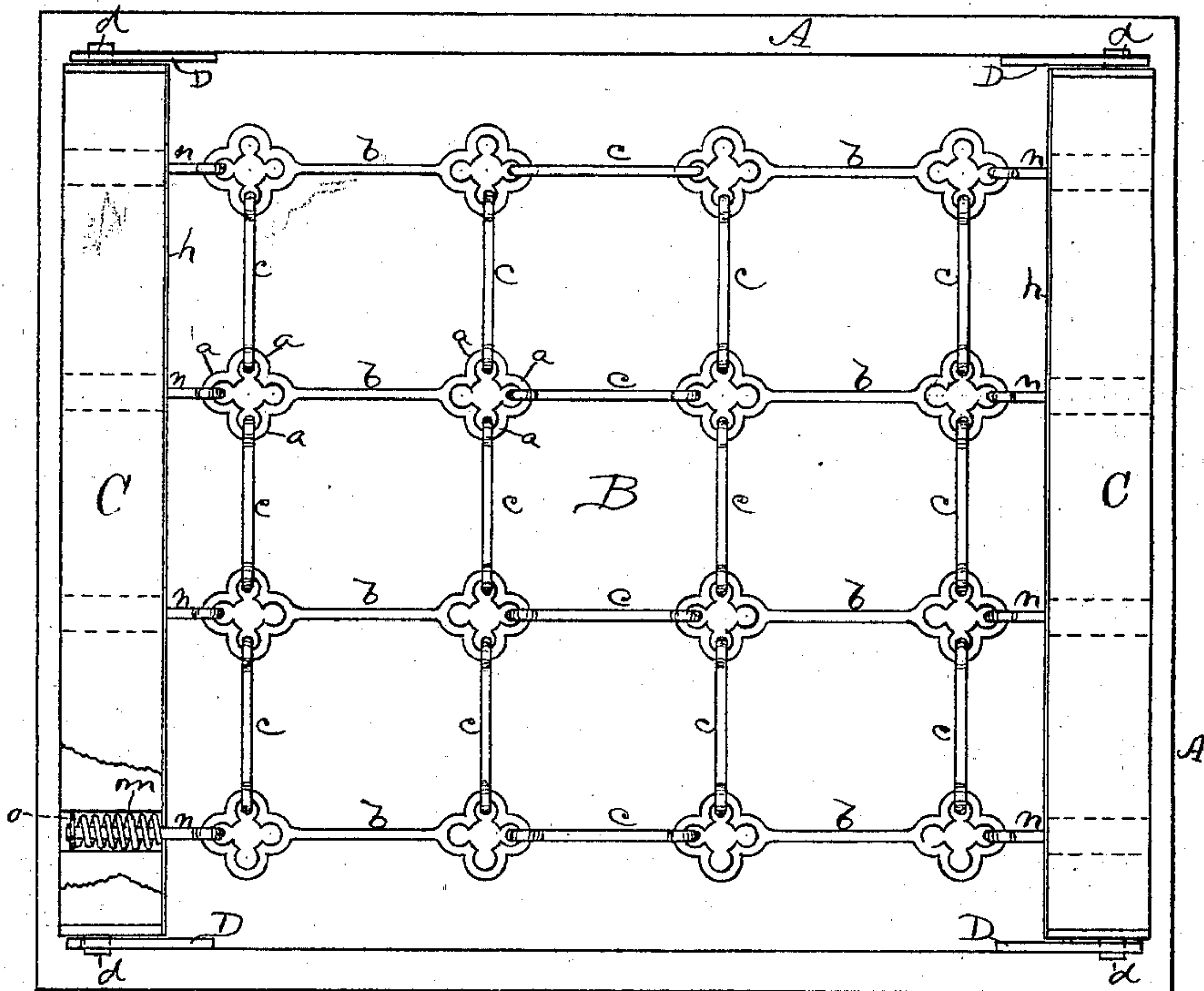


Fig. 2.

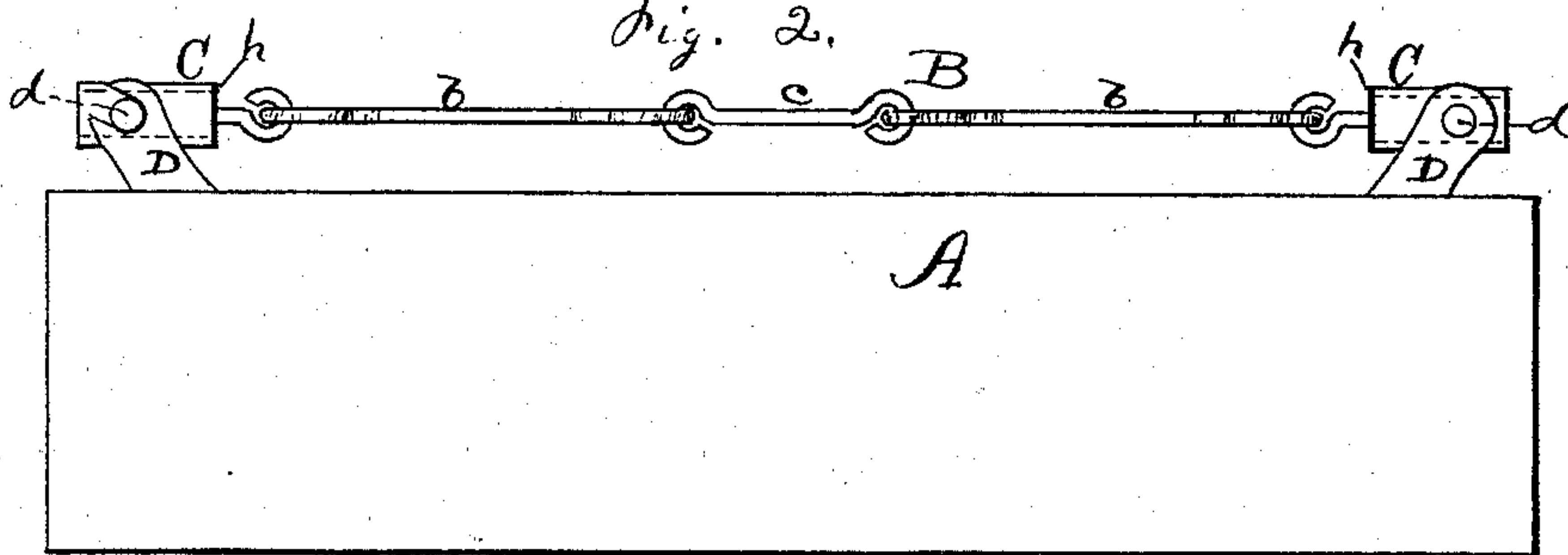
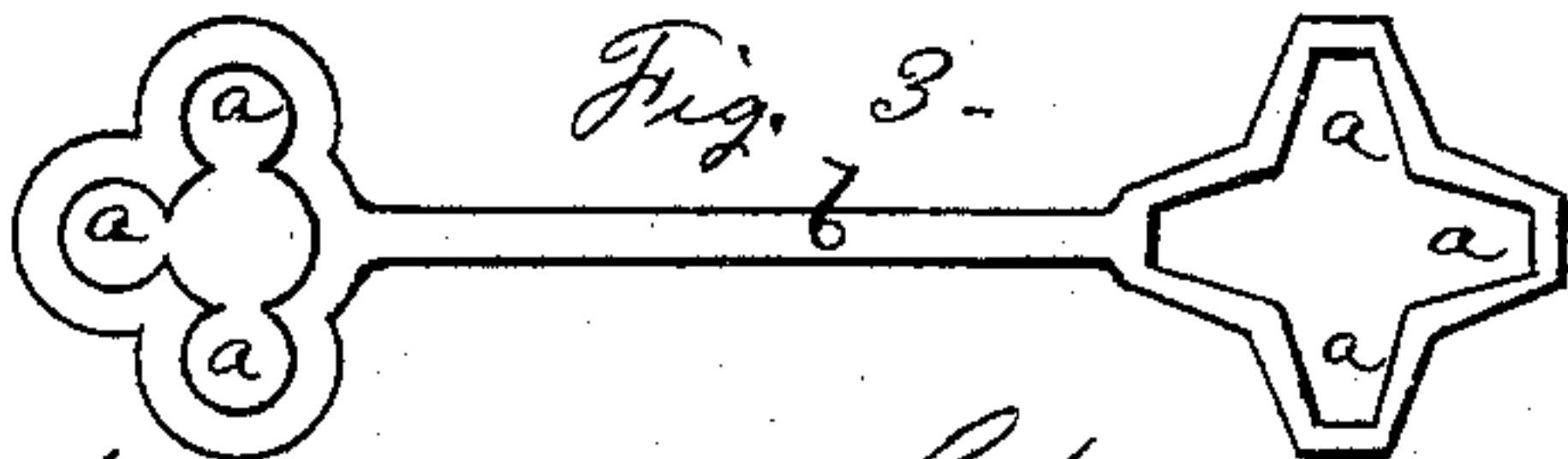


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHESTER PENFIELD, OF NEW BRITAIN, CONNECTICUT.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. 135,580, dated February 4, 1873.

To all whom it may concern:

Be it known that I, CHESTER PENFIELD, of New Britain, in the county of Hartford and State of Connecticut, have invented certain Improvements in Bed Bottoms, of which the following is a specification:

My invention consists of the combination and arrangement of the springs within a head at each end of a stretched netting, cords, or other fabric, whereby the springs are compressed instead of stretched, as hereafter described; also, in combination of the foregoing with the pins and ears whereby an oscillating motion of the heads relieves any unequal strain upon the springs, as hereafter described; also, in the solid link of the wire fabric, with three eyes at the end, as hereafter described.

In the accompanying drawing, Figure 1 is a top view of a bed-bottom which embodies my invention; Fig. 2 is a side elevation of the same; and Fig. 3 is a plan view of one of the solid links employed in construction of the wire net-work.

A designates the frame, and B the wire-netting stretched thereon. I form this wire-netting by first making a solid link, *b*, with three eyes upon each end, as shown in Figs. 1 and 3. These links *b* are connected at each of the eyes *a* by hooks *c*, thus forming the netting, as shown in Figs. 1 and 2.

If desired, the links *b* might be made with a simple hook at one end, and the three eyes at the opposite end, and the hook of one link connected to the central eye of the succeeding link to form the longitudinal cords, and the transverse hooks be connected as shown.

At each end of the frame I provide a rail, which I will term heads C C. These heads are pivoted on pins *d d* resting in the ears D D, which ears are secured to the frame A; or, if desired, directly to the bedstead, in which case the frame may be dispensed with. Through each of the heads C C I make as many holes (indicated by broken lines) as there are longitudinal cords in the netting. Upon the inner edge of each head C I secure a metal plate, *h*, having smaller holes in it, immediately in front of the holes in the heads. At one corner in Fig. 1 the head is represented as broken in order to show

the interior arrangement of the parts. In each hole of the heads C C I insert a spiral spring, *m*. I then pass the body of the hooks *n* (which are attached to the netting B) through the plate *h* and springs *m*, and secure a suitable cap or head, *o*, to its outer end.

If desired, the ears D D may be slotted to receive the pins *d d*, as shown at the left in Fig. 1, and thereby allow the head to be slipped out of or into place for convenience of construction or repairs. It is, of course, evident that, so far as the operation of the springs and heads is concerned, it is immaterial what kind of netting or fabric is stretched between them.

The elasticity of the springs *m* will keep the fabric stretched, and pressure upon the netting will draw out the hooks and compress the spring until its coils meet, but no damage can be done the spring, however great the pressure upon the netting may be.

In bed-bottoms which have springs and fabric so arranged as to expand or stretch instead of compress, the spring by pressure upon the fabric any undue pressure will be liable to set or break the springs.

By my invention all danger of setting or breaking the springs is wholly avoided. The arrangement of the springs within the heads also prevents them from catching upon or soiling the bed-clothes. The swinging movement of the heads upon the pins *d d* prevents the body of the hooks *n* from being bent, and also causes the pressure of the spring to bear equally upon both its upper and lower sides.

The solid link *b* with the triplet of eyes at the end of the reception of the hooks *c* and *n* enables me to make a cheap, neat, and durable wire-netting at a very small cost.

I claim as my invention—

1. The combination of the ears D D, the pins *d d*, the heads C C, the springs *m*, and the hooks *n*, substantially as described, and for the purpose set forth.

2. The solid link *b*, with its triplet of eyes *a a a* formed upon the end, substantially as and for the purpose described.

CHESTER PENFIELD.

Witnesses:

JAMES SHEPARD,
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