

H. C. POWELL.
 WIRE FABRIC.
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998,036.

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Fig. 1.

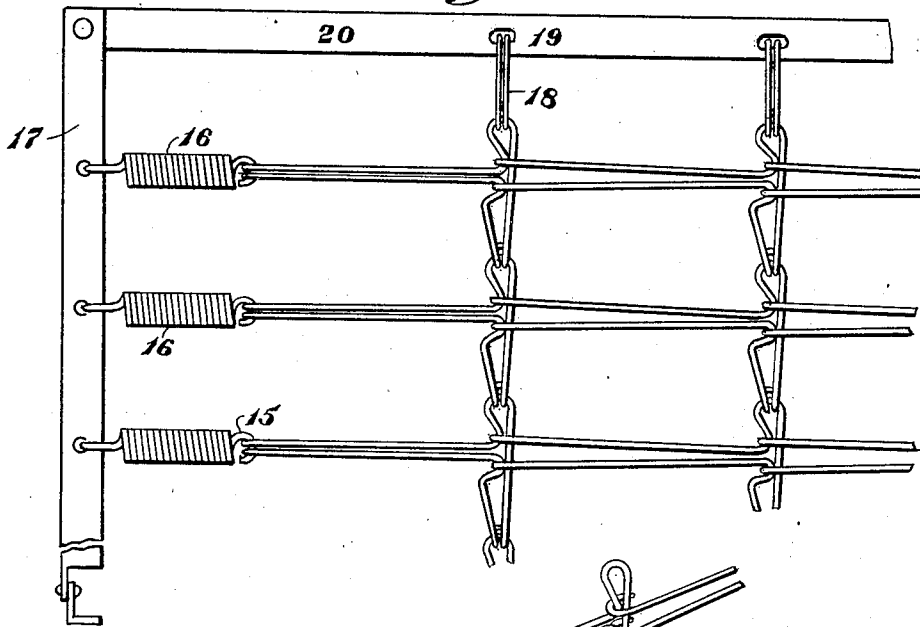


Fig. 2.

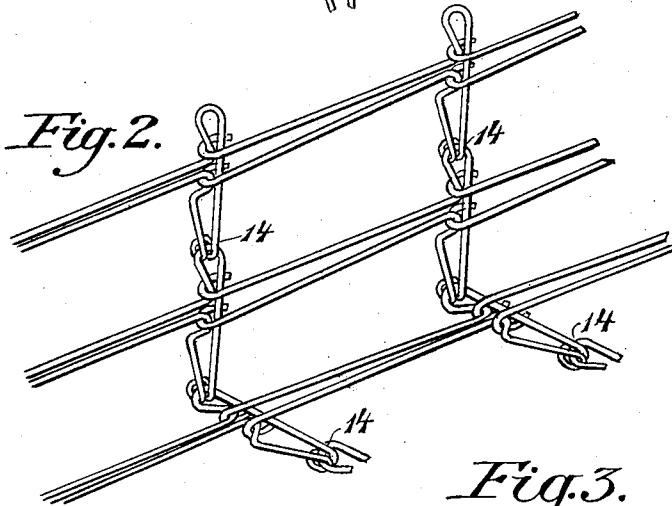
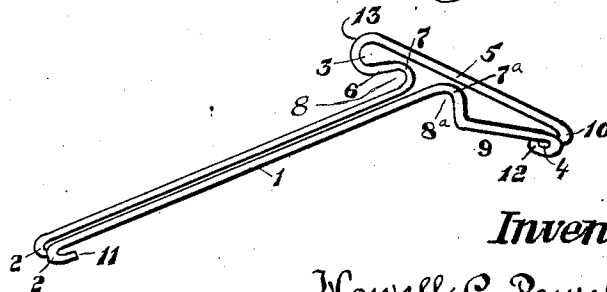


Fig. 3.



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WIRE FABRIC.

998,036.

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To all whom it may concern:

Be it known that I, HOWELL C. POWELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Wire Fabrics, of which the following is a specification.

The invention relates to a fabric made of wire adapted to be flexed for rolling longitudinally and to be folded on hinged joints laterally for use in the bottom of a folding bed; and the object of the improvement is to make the fabric of a plurality of integral wire units interengaging with each other without the use of separate intervening links, thereby economizing and simplifying the making and assembling of the units.

Other objects of the improvement include the use of double strands of wire both longitudinally and laterally to increase the strength of the fabric with comparatively light wire; and, by decreasing the number of joints, to make the fabric substantially noiseless, and also to avoid tangling or bunching the fabric in a mass or separating its parts when not stretched as in a bed.

These objects of the improvement, and other ancillary advantages, are attained by the preferred embodiment of the invention illustrated in the accompanying drawing, forming part hereof, in which—

Figure 1 is a fragmentary view of a bed-bottom frame, showing the connection of the fabric therewith; Fig. 2, a fragmentary view of the fabric folded laterally on its hinged joints; and Fig. 3, a detached perspective view of one of the wire units of which the fabric is made.

Similar numerals refer to similar parts throughout the drawing.

Each integral unit is made of wire bent upon itself to form the two-strand shank 1, and the free ends of the shank strands, which may be called the forward ends of the unit, are bent to form the hooks 2. The wire is furthermore bent at the connected or yoked end of the shank, which may be called the rear end of the unit, to form the two-strand eye 3 on one side and the two-strand hook 4 on the other side.

In forming the eye and the hook, the connecting or yoke-strand 5 is preferably made substantially straight and is located in the plane of the shank-strands 1. The forward strand 6 of the eye is deflected rearward to

be adjacent to the yoke-strand at the bend 7 of the shank-strand, thus forming the U-shaped bearing 8 alongside the shank-strand, in which bearing the hooked end of the shank-strand of the longitudinally adjoining unit is adapted to be engaged.

The forward strand 9 of the lateral hook 4 is bent at 7^a to form the similar U-shaped bearing 8^a alongside the strand-shank, in which bearing the other hook 2 on the forward end of the longitudinally adjoining unit is adapted to be engaged; whence the forward strand 9 of the lateral-hook 4 is deflected rearward, to be adjacent to the yoke-strand at the bend 10 of the hook, whence the two strands are bent back upon themselves to form the two strand hook 4; all as shown more particularly in Fig. 3.

In assembling the units to form the fabric, the shank-hooks 2 on the forward end of each unit are engaged in the U-shaped bearings 8 and 8^a formed in the forward strands of the lateral eye and hook, and the ends 11 of the shank-hooks 2 are then bent around the rear side of the yoke strand 5 to complete the joint and prevent a disengagement of the parts; and it is evident that this joint will have sufficient flexibility to permit a longitudinal rolling of the fabric in the usual manner. Each lateral hook 4 is then engaged in the adjacent lateral eye 3, and the end 12 of the hook is then clamped around the loop strand 13 of the eye 3 which thus becomes a pivotal strand, thereby completing the hinged joint 14 which cannot become disengaged, and which permits a complete lateral folding of the fabric.

When the fabric is used as a bed bottom, the shank-hooks 2 are engaged with the eyes 15 of the coiled springs 16 connected with one end bar of the frame 17; the lateral eyes 3 are connected by the two-strand hook-links 18 with the usual slots 19 provided in the side bar 20 of the frame; while the yoke ends of the units are connected by similar link-hooks with the springs at the other end bar of the bed (not shown); and the lateral hooks 4 are connected directly in slots provided in the other side bar of the bed (not shown).

It is evident that the fabric thus made is composed of two strands at all points throughout its longitudinal and lateral extent, which permits a maximum strength

with a minimum gage of wire; and that the two strand lateral hooks and eyes and the hinged joint formed by them, without intervening links, makes a specially strong and noiseless lateral construction; while the two-strand shanks, jointed directly one with another, makes a specially strong and sufficiently flexible longitudinal construction; and generally, that the fabric thus made, while longitudinally flexible and laterally foldable, cannot be easily tangled or bunched when not stretched, as in a bed.

I claim:

1. A fabric composed of wire units each bent upon itself to form a two-strand shank with hooks on the forward ends, a two-strand eye formed on one side and a two-strand hook formed on the other side of the yoked rear end, the forward strands of the

eye and hook being bent to form U-shaped bearings alongside the shank-strands; the shank hooks of one unit being engaged in the U-shaped bearings of the longitudinally adjoining unit, and the lateral hook of one unit being engaged in the lateral eye of the laterally adjoining unit.

2. A wire fabric unit bent upon itself to form a two-strand shank with hooks on the forward ends, a two-strand eye formed on one side and a two-strand hook formed on the other side of the yoked rear end, the forward strands of the eye and the hook being bent to form U-shaped bearings alongside the shank-strands.

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