

(No Model.)

2 Sheets—Sheet 1.

G. B. SMITH.
BED BOTTOM.

No. 508,056.

Patented Nov. 7, 1893.

FIG. 1.

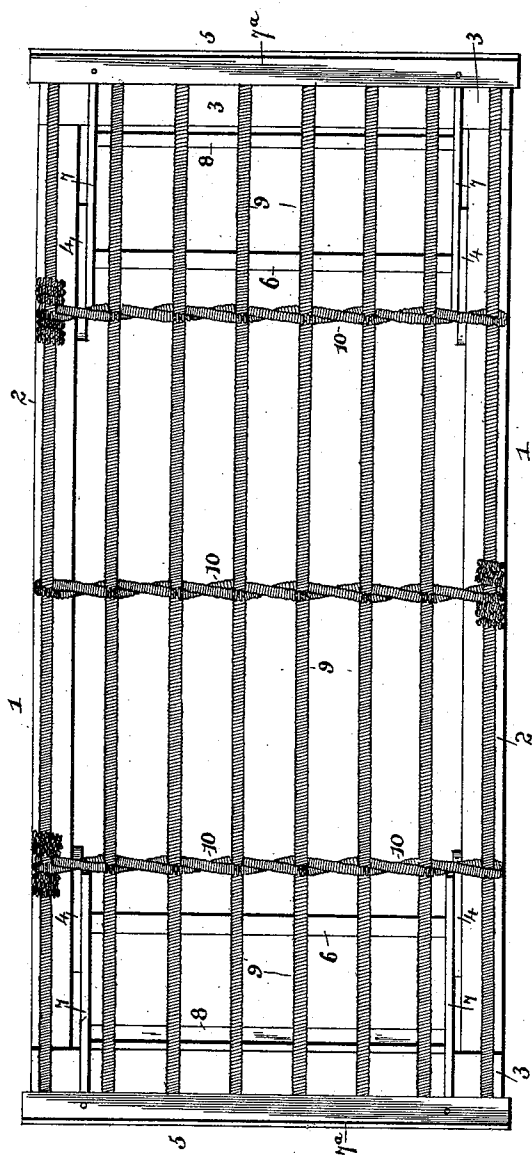
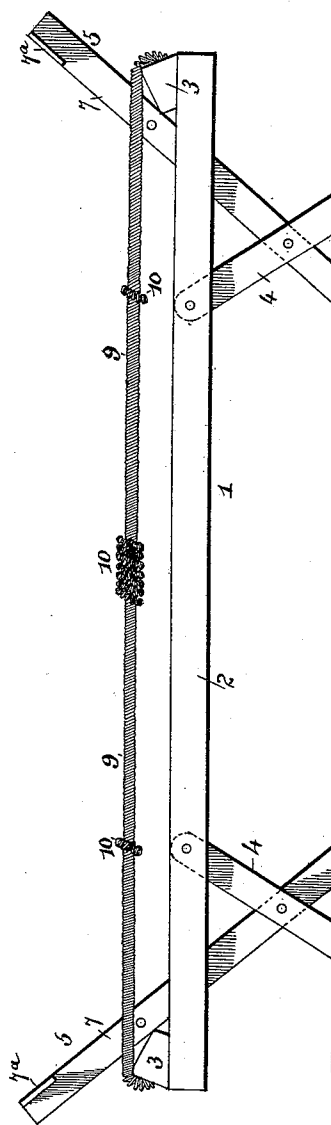


FIG. 2.



Witnesses

Jas. K. McLaughlin

C. E. [Signature]

Inventor

Gary B. Smith

By his Attorneys,

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

G. B. SMITH.
BED BOTTOM.

No. 508,056.

Patented Nov. 7, 1893.

FIG. 3.

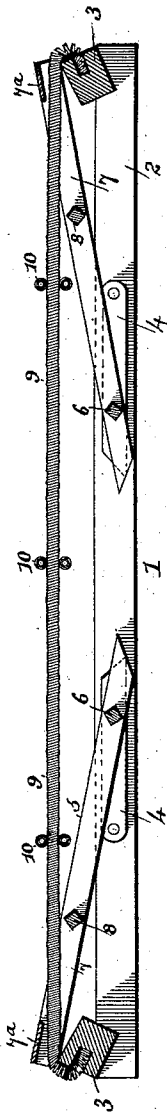


FIG. 5.

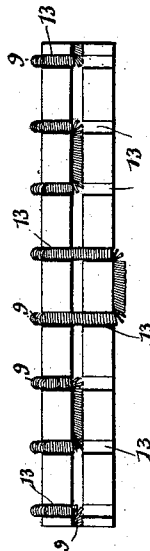


FIG. 6.

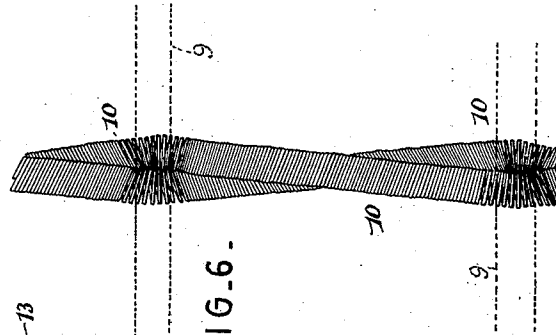
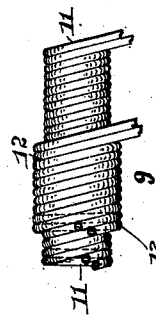


FIG. 4.



Witnesses

Jas. H. McLaughlin

[Signature]

Inventor

Gary B. Smith

By his Attorneys,

Chas. Snow & Co.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GARY B. SMITH, OF WOLCOTT, NEW YORK.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 508,056, dated November 7, 1893.

Application filed August 4, 1892. Serial No. 442,157. (No model.)

To all whom it may concern:

Be it known that I, GARY B. SMITH, a citizen of the United States, residing at Wolcott, in the county of Wayne and State of New York, have invented a new and useful Bed-Bottom, of which the following is a specification.

My invention relates to improvements in bed-bottoms, the special object in view being to provide a spring-bottom which is not liable to be distorted or forced out of shape by the super-incumbent weight, and in which all of the strands are made mutually supporting.

A further object of my invention is to provide a simple and effective folding frame.

Further objects of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a plan view of a bed-bottom embodying my improvement. Fig. 2 is a side view. Fig. 3 is a longitudinal section, showing the head-rests and legs or supports folded. Fig. 4 is a detail view of a section of one of the strands, showing the concentric coils. Fig. 5 is an end view showing the notches for the attachment of the strands to the frame. Fig. 6 is a detail view of one of the looped or double cross-strands or stays.

The frame 1 comprises, essentially, the parallel side-bars 2, and the end-bars 3, which are secured upon the upper surfaces of the side-bars so that the upper edges of the end-bars are above the plane of the side-bars. To the inner sides of the side-bars, near their extremities, are pivotally connected the legs or supports 4, the head-rest frames 5 being pivotally connected, near their lower ends, with said legs or supports, and being connected in pairs by the cross-bars 6. The head-rests consist of the side-pieces 7, which are adapted to rest at their lower ends upon the floor when the bed is in its operative position, said side-pieces being extended the same distance below their pivotal point as the legs or supports; and said side-pieces are connected, at their upper ends, by the transverse bar 7^a. Additional cross-bars 8 are provided at intermediate points of the side-bars, for a purpose to be described hereinafter.

The bed-bottom comprises, essentially the longitudinal strands 9, and the transverse strands or stays 10. The longitudinal strands are attached at their ends to the end-bars of the frame, and the transverse strands or stays are connected solely to the longitudinal strands and are interlaced between the same to hold them at the desired separation.

The strands which I prefer to use, and which I have shown in connection with the drawings, consist of coils of fine wire; and while single coils may be used with advantage, I prefer to employ double coils or concentric coils, which consist of a core or interior coil 11, and a shell or exterior coil 12, as shown clearly in the detail view, Fig. 4, each being closely or compactly coiled to permit of equal extension. The transverse strands or stays are looped or doubled, the closed end of the loop being engaged with one of the side-strands, and the free ends of the loop being coiled in opposite directions around the opposite side-strands. The sides of the loop are twisted together regularly in one direction and each side is passed alternately under and over successive longitudinal strands, whereby, at the intersections of the transverse strands or stays and a longitudinal strand, one side of the former rests upon the upper side and the other upon the lower side of the longitudinal strand, thus uniting all of the longitudinal strands and causing them to bear mutually the pressure of the superincumbent weight.

In Fig. 1 the longitudinal strands are shown as connected to the end-bars in the simplest manner, namely, by placing their extremities in depressions or perforations in said bars, but other ways of securing the strands to the frame may be employed, the preferred manner of accomplishing this being indicated in Fig. 5. In this construction, the outer surface of the end-bar is provided with a longitudinal channel or groove 13, which is intersected at intervals by transverse or vertical channels, thus forming a series of notches, through which are carried the ends or loops of the longitudinal strands, as shown clearly in said figure. It will be understood that the longitudinal strands are not necessarily formed of single lengths, but may be integral

as indicated in the above-mentioned figure, two or more strands being connected together and secured in place by engaging their loops with the channels in the end-bars.

5 It will be noted that the transverse strands or stays are disposed alternately in opposite directions, namely, the closed ends of the loops are alternately engaged with opposite side-strands, thus adding to the strength and
10 firmness of the bed-bottom, and equalizing the weights of its parts.

The intermediate transverse bars which are above described in connection with the head-rests, act as stop bars to engage the longitudinal strands in proximity to the end-bars to
15 hold said head-rests and the legs or supports in their operative positions. The manner in which said rests and supports are folded is clearly shown in Fig. 3.

20 Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a bed-bottom, the independent longitudinal coiled strands and the independent transverse coiled strands intersecting the longitudinal strands at intervals, each strand
25 comprising an interior close-coiled core and a concentric inclosing close-coiled shell, substantially as specified.

2. In a bed-bottom, the intermeshing strands consisting each of a plurality of similar compact, or close-coiled, concentric coils,
30 substantially as specified.

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

GARY B. SMITH.

Witnesses:

JOHN E. HULSAVER,
W. C. CALKINS.