

H. W. LADD.
SPRING-BED.

No. 172,327.

Patented Jan. 18, 1876.

Fig. 1.

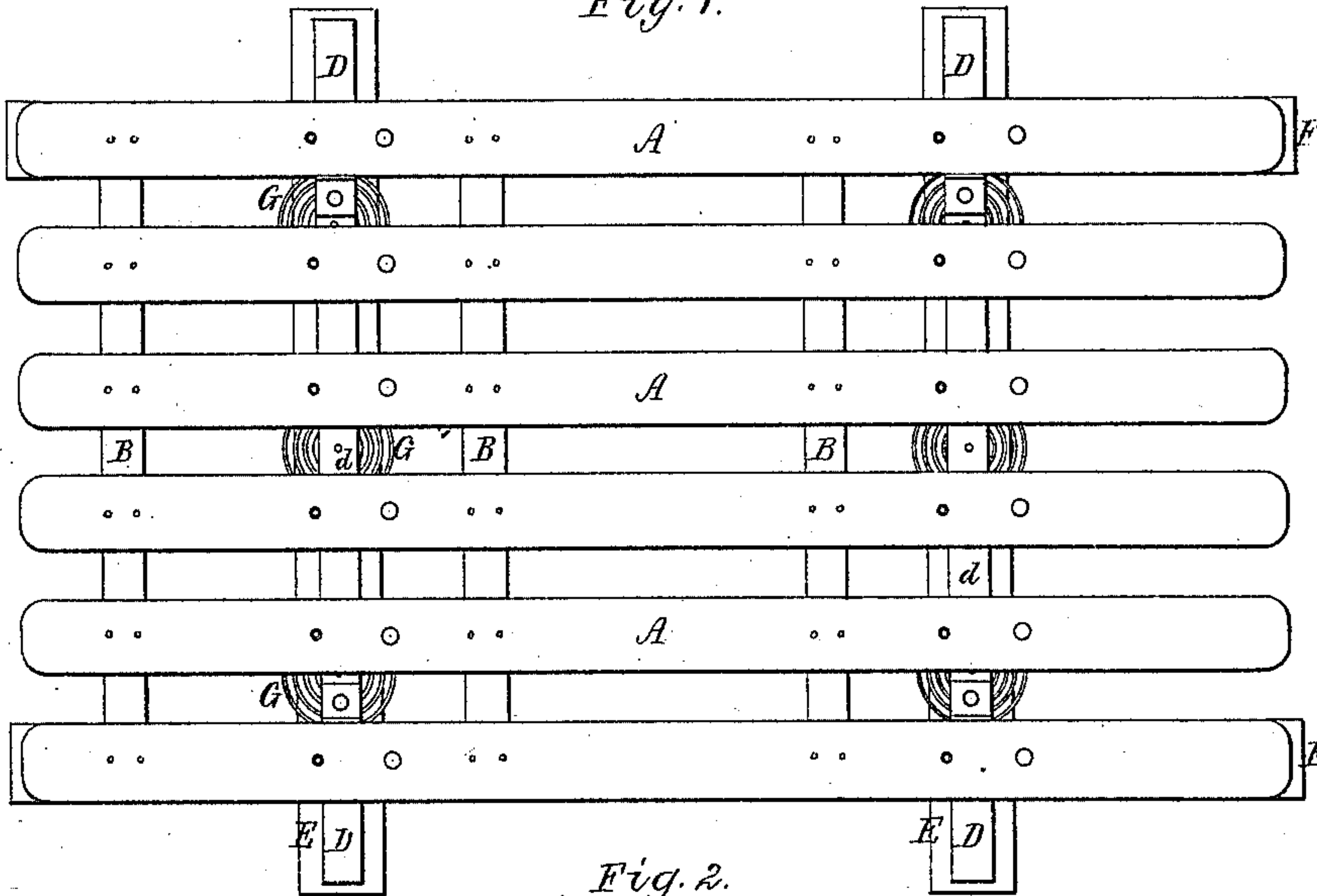


Fig. 5.

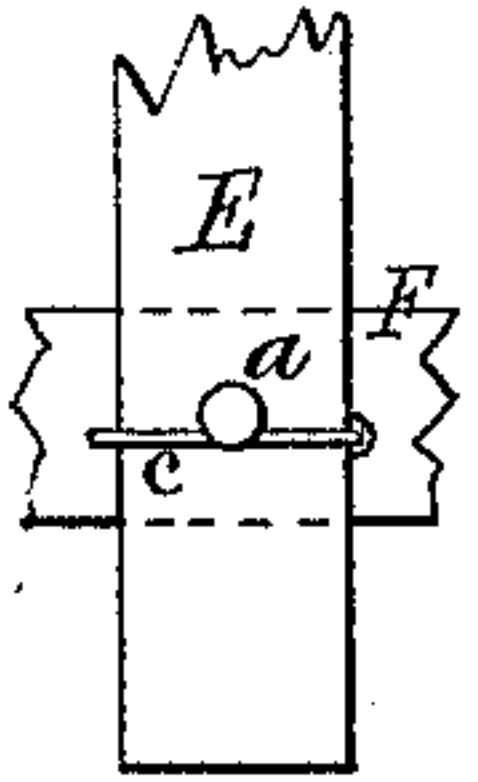


Fig. 2.

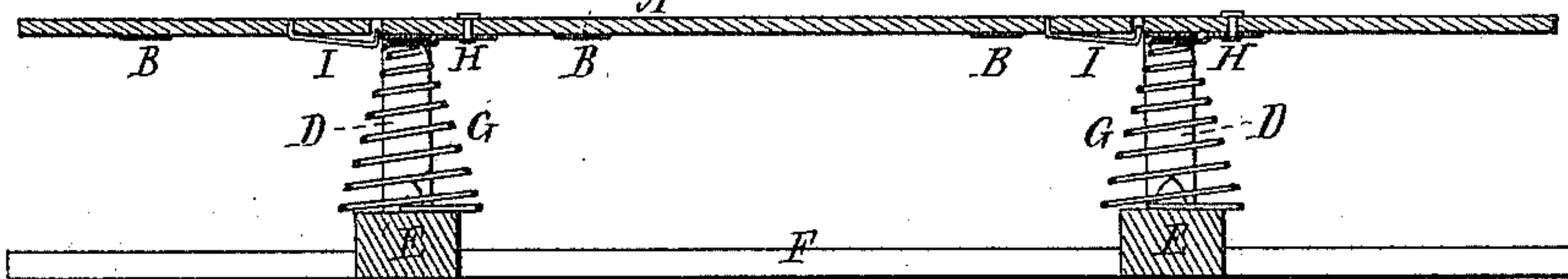


Fig. 3.

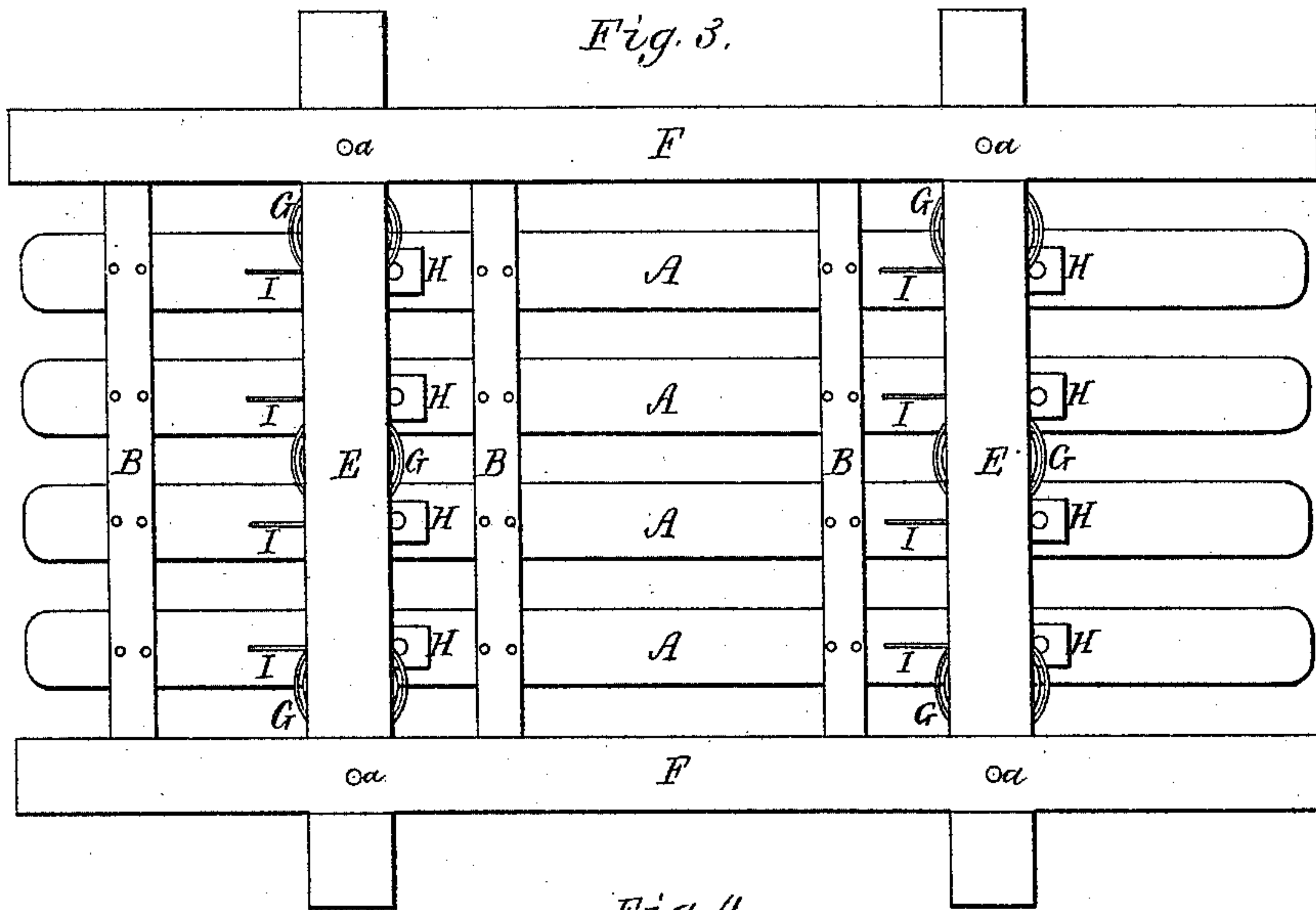
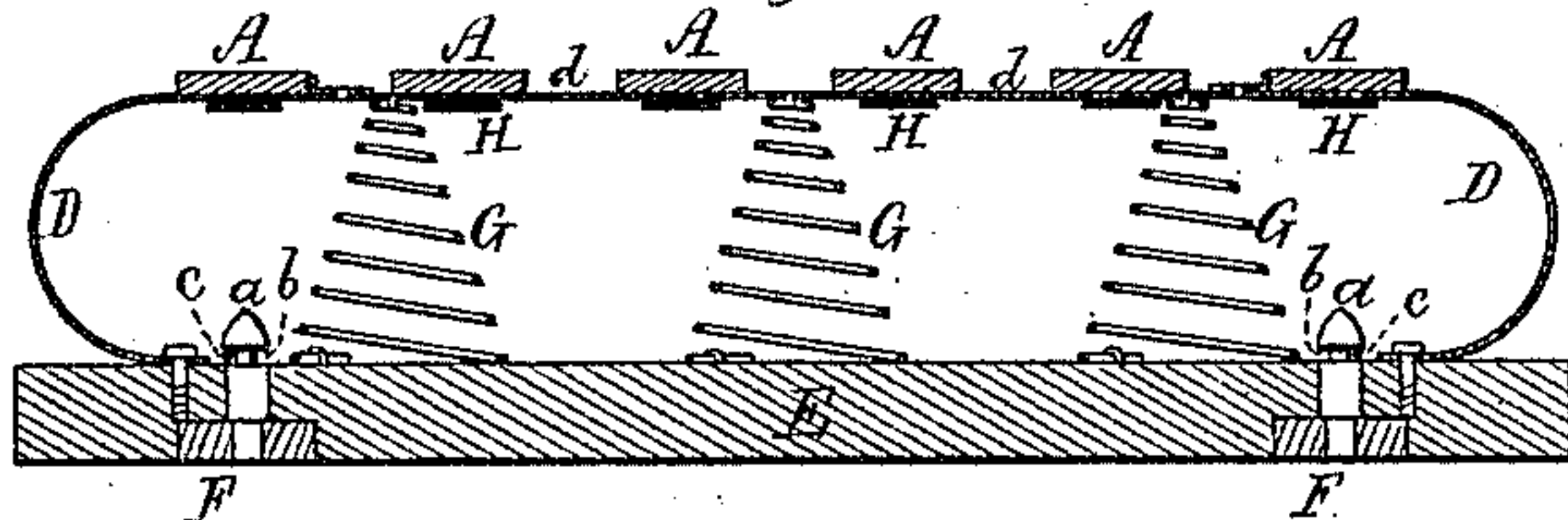


Fig. 4.



Witnesses.
S. N. Piper
L. H. Müller

Hermion W. Ladd.
by his attorney.
R. H. Ladd

UNITED STATES PATENT OFFICE.

HERMON W. LADD, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN SPRING-BEDS.

Specification forming part of Letters Patent No. 172,327, dated January 18, 1876; application filed December 16, 1875.

To all whom it may concern:

Be it known that I, HERMON W. LADD, of Chelsea, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Spring-Beds; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, Fig. 2 a longitudinal section, Fig. 3 a bottom view, and Fig. 4 a transverse section, of a bed-bottom provided with my invention.

In Fig. 2 the section is taken through the slat-fastenings, while in Fig. 4 it is taken through the springs and their support-bar.

My invention relates to the combination of duplex C-springs with two series of helical springs, their support-bars, and a series of slats; also, to certain means of connecting the parts of the bottom frame, and also to the connection of the slats with the springs.

In carrying out my invention I employ, for supporting the series of slats, two duplex C-springs and two series of tapering spiral springs, there being a series or set of the latter to each of the duplex C-springs. I also combine with the slats and the duplex C-springs a series of lap-plates and spring-catches, which are for enabling the slats to be readily connected with or removed from the C-springs; and, furthermore, I connect the transverse and longitudinal bottom bars by catch-springs and grooved tenons, all as hereinafter explained and represented.

In the drawings, A A A denote a series of slats, arranged parallel to each other, and connected to transverse bands or strips of webbing B B B, disposed at right angles with the said slats and fastened to their under sides. The series of slats rest on two duplex C-springs, D D, formed as shown, and fixed, near their ends, to two transverse bottom bars, E E, which are notched from their lower edges upward to receive two longitudinal bars, F F. At the junction of each of the bars F with either of the bars E E there is a pin or tenon, *a*, which projects from the bar F up through the bar E, and is provided with a notch or groove, *b*, to receive a catch-spring, *c*, fixed at one end to the bar E, and arranged thereon as shown particularly in Fig. 5, which is a top view of the catch-spring and the parts next

adjacent thereto. The said springs and grooved or notched tenons serve to keep the bars E E and F F in connection, and to allow them to be readily separated, as occasion may require. Furthermore, there is based upon each of the bars E E, and extended up to the crown part *d* of the duplex C-spring attached to said bar, a series of helical springs, G G G, each of them being properly secured to the said part *d* and to the support-bar E. There is to each slat two lap-plates, H H, which, attached to the slat on its under side, extend in like directions and lap under and against cross-straps on the crown portions *d d* of the two duplex C-springs. These lap-plates, with a series of spring-catches, I I I I, secured to some of the slats, and constructed as shown, serve to hold the slats in connection with the crowns of the C-springs, and readily admit of their disconnection being effected, as may be required.

The peculiar duplex C-springs, while affording, with the spiral springs, an elastic support for the slats in vertical directions, permit them to swing somewhat laterally, thereby allowing the slats, while the bed may be in use, to accommodate themselves to better advantage to a person than would be the case were they supported upon bands rigidly fixed at their ends to bars on a level with the slats.

With my improved bed-bottom the parts can readily be disconnected for being packed in a small compass for transportation or otherwise.

I claim as my invention—

1. In a spring-bed, the combination of the duplex C-springs, as described, with the two series of helical springs G, their support-bars E, and the series of slats A, all being arranged and constructed substantially as specified.

2. The lower frame-bars E E F F, provided with the notched or grooved tenons *a* and the catch-springs *c*, arranged as specified.

3. In combination with the bars E E and their metallic straps D D, the series of slats A, provided with means, substantially as described—viz., lap-plates H H and spring-catches I I—of connecting them with and disconnecting them from the said straps D D, all as set forth.

HERMON W. LADD.

Witnesses:

R. H. EDDY,
J. R. SNOW.