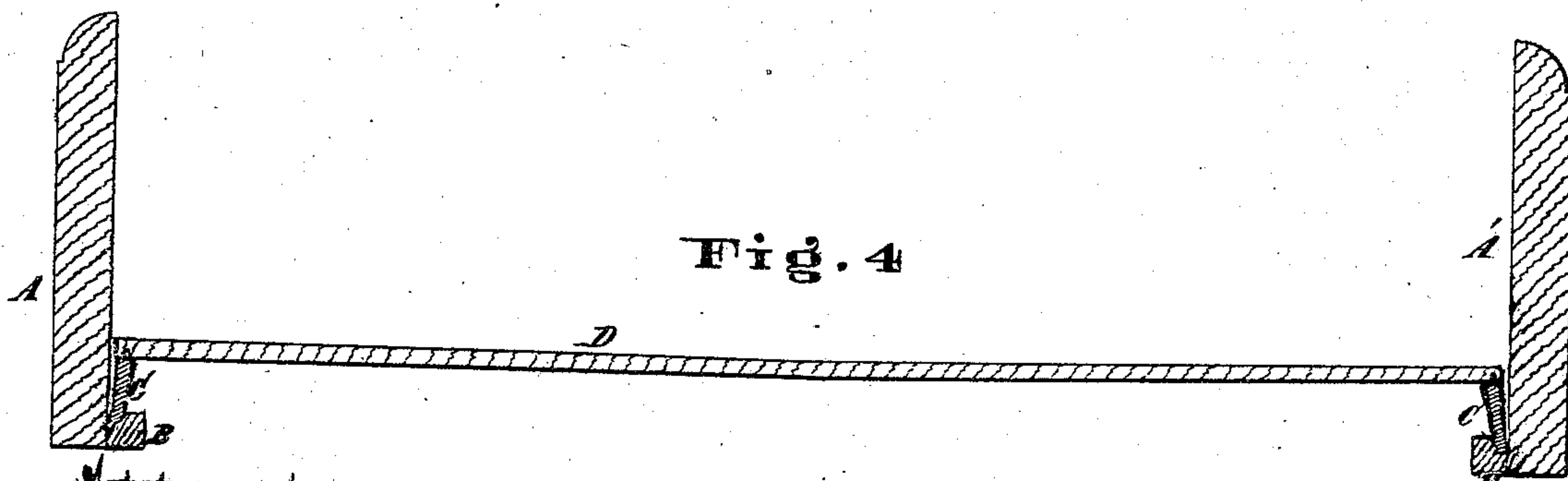
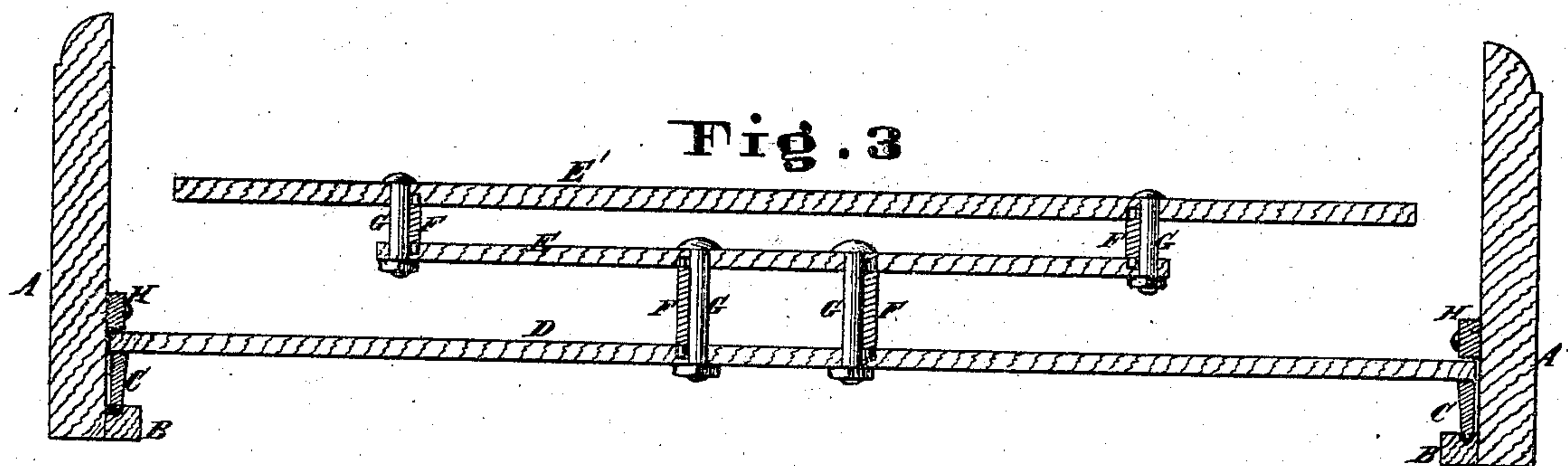
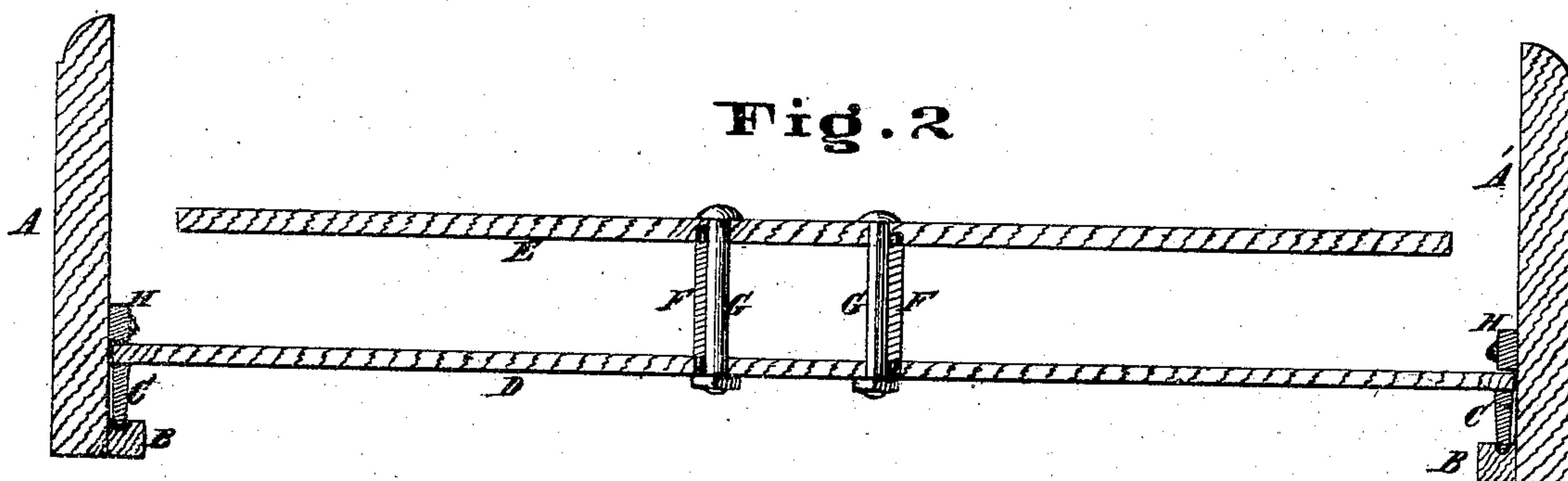
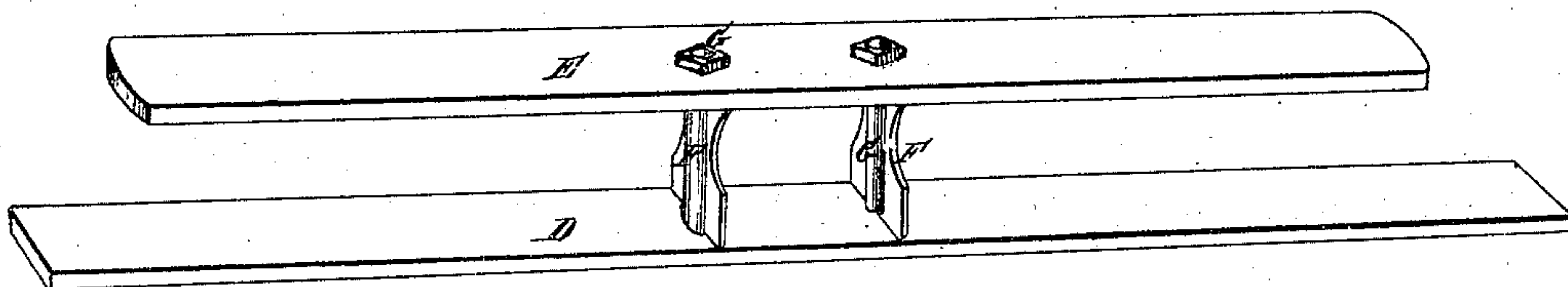


**E. F. Dunaway**  
**Imp't in**  
**Bedstead Springs**  
 No. 118,352. Patented Aug. 22, 1871.



**Attest**  
*Wm. H. Millward*  
*Clifford H. Layman*

**Inventor**  
*Elijah F. Dunaway*  
*By W. H. Millward*  
*Attorney*

# UNITED STATES PATENT OFFICE.

ELIJAH F. DUNAWAY, OF CINCINNATI, OHIO.

## IMPROVEMENT IN BEDSTEAD-SPRINGS.

Specification forming part of Letters Patent No. 118,352, dated August 22, 1871.

*To all whom it may concern:*

Be it known that I, ELIJAH F. DUNAWAY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Bedstead-Springs, of which the following is a specification:

My invention consists in a peculiar device for connecting the lower slat with the bed-rails, which permits the slat or slats to assume a curved shape in springing without creating a creaking noise at the junction with the rails. It also consists in the employment of a prop of peculiar form for separating the slat of the spring, which will give the necessary stiffness and facilitate the separation of the slats for reversal after they have become set in use.

Figure 1 is a perspective view of the spring detached from its supports and bed-rails. Fig. 2 is a cross-section of the bedstead with the springs in place. Fig. 3 exhibits a modification in the construction of the spring. Fig. 4 is a cross-section of the bedstead, showing the vibrating action of the spring-supports. Fig. 5 is a detached perspective view of one of the props which separate the slats. Fig. 6 is a perspective view of one of the vibrating supports which connect the lower slat with the bed-rails.

A A' are the side rails of the bedstead, and B the strips which support the springs. C are the vibrating supports which connect the springs with the bed-rails. They rest in grooves or indentations in the strips B, and connect, by pins (Fig. 4) or otherwise, with the ends of the slat D. In some cases the slats may rest upon the supports C only, and have no fastening. My improved spring is formed by the combination of slats D and E, firmly connected together by props F and bolts G, the lower one resting upon the supports C and the upper one being free to vibrate in use at the ends. The props F contain a

semi-cylindrical recess to partly embrace the bolts, and have projecting studs at each end to enter holes in the slats to steady them. By simply loosening the nut on the bolt, so that the studs at one end can be withdrawn out of the slat, the props can be readily removed.

In the action of this spring the part near the rails A A' possesses as much range of elasticity as the center of the spring, and no part of either slat is forced by any ordinary pressure beyond the natural limit of elasticity. As the spring is forced down the supports C move at the top inward, vibrating on their lower ends, thus preventing any creaking noise.

The creaking in ordinary bedsteads is occasioned by the dragging of the slat ends over the parts of the bed-rails on which they rest as the slat is deflected or retracted. Additional slats, E', may be connected to the spring where a greater range of elasticity is desirable.

Leatherstrips may be fastened on the bedstead-rails to prevent the displacement of the springs, the same being shown on the drawing and designated by H.

The slats are connected by screw-fastenings, so that they can be taken apart and reversed after they have become permanently set.

I claim—

1. The combination of the slats D E, props F, and bolts G, to form an improved bedstead-spring, substantially as described.

2. In combination with the bed-rails and slat D, the vibrating supports C, as described, and for the purpose specified.

In testimony of which invention I hereunto set my hand.

ELIJAH F. DUNAWAY.

Witnesses:

FRANK MILLWARD,  
J. L. WARTMANN.