

(No Model.)

J. T. ELWELL.
Mattress.

No. 238,873.

Patented March 15, 1881.

Fig. 1.

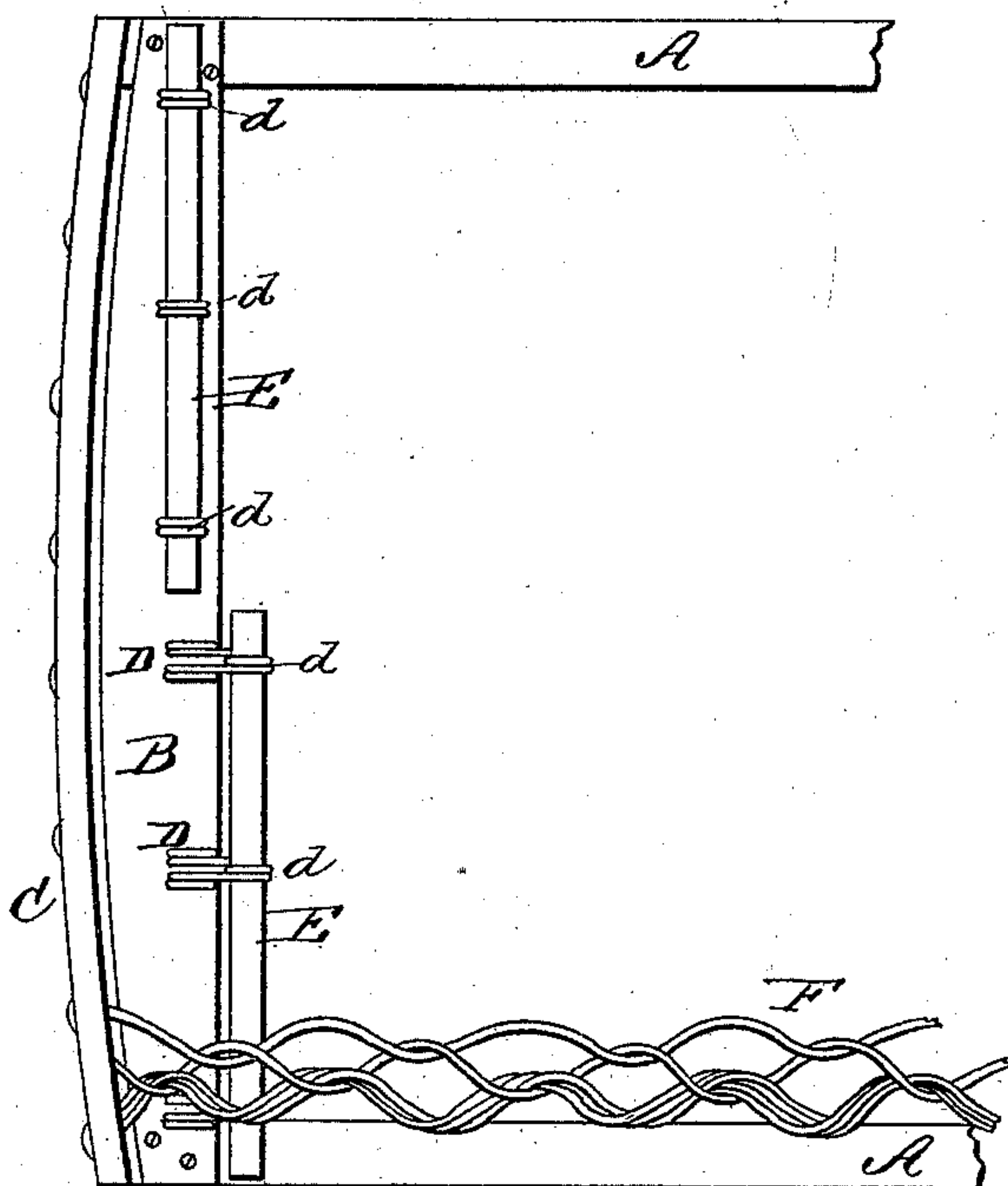
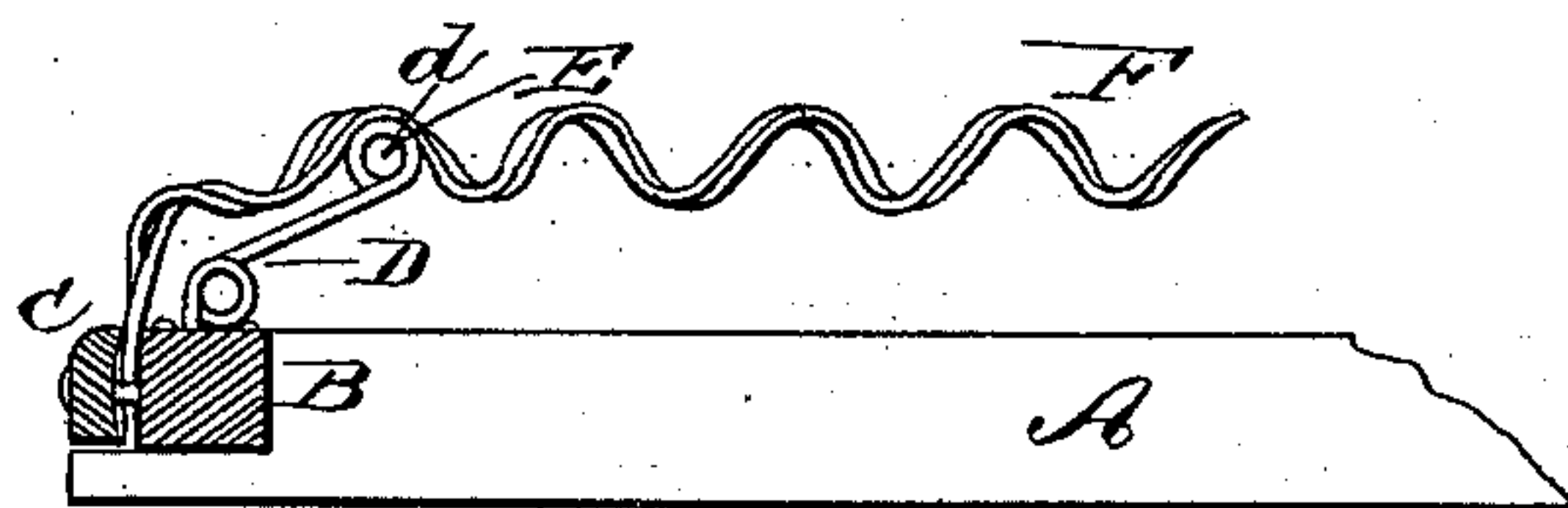


Fig. 2.



Witnesses:
W. C. McArthur,
John C. Rogers.

Inventor:
James T. Elwell.
Per W. Alexander
Attorney.

UNITED STATES PATENT OFFICE.

JAMES T. ELWELL, OF MINNEAPOLIS, MINNESOTA.

MATTRESS.

SPECIFICATION forming part of Letters Patent No. 238,873, dated March 15, 1881.

Application filed January 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. ELWELL, of Minneapolis, in the State of Minnesota, have invented certain new and useful Improvements in Mattresses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, and in which—

Figure 1 is a plan view, and Fig. 2 a longitudinal section.

This invention relates to that class of spring-mattresses in which woven-wire fabric is employed.

The improvement consists, first, in the combination, with the woven-wire fabric, of the end rails of the frame having bow-shaped outer sides and end pieces made with a corresponding curvature, the ends of the fabric being secured between said end pieces and the rails; second, in the combination, in a spring-mattress, of the flexible fabric, with bars supported by springs secured to the end rails, the said bars being arranged to bear against the under side of the fabric by the action of the springs, so as to support the fabric and take up the slack therein; third, in the combination, in a spring-mattress, of the woven-wire fabric, with the end rails of the frame, having bow-shaped outer sides, bow-shaped end pieces secured to the rails and clamping the ends of the wires forming the fabric thereon, and bars supported by springs and bearing against the under side of the fabric, all as hereinafter more fully described.

The letter A refers to the side rails, and B to the end rails, which are connected together at their ends by means of suitable bolts. The side rails are recessed at their ends to receive the said end rails, and the reduced portions of said recessed ends extend beyond the end rails, so as to form supports for the end pieces, C, which are secured by means of bolts or screws to the end rails, B. The outer sides of the end rails are curved or bow-shaped, and the end pieces, C, are made to correspond to said curvature.

D D indicate springs, which are secured to

the top sides of the end rails, a portion of each spring being bent upward and coiled at the upper part of such bent portion, so as to form an eye, *d*, through which is passed a bar, E. Preferably two of these bars are employed at each end of the mattress, each bar passing through a certain number of the eyes of the springs just described. The tendency of these springs is to throw the bars outward, as illustrated in that portion of the mattress in which the woven-wire fabric has not been applied.

The woven-wire fabric F, which in the present instance consists of a series of spirally-wound interlacing wires, is secured at its ends to the outer curved sides of the frame by means of staples, and also by means of the curved end pieces, C, which clamp the ends of the wires upon the rails and also conceal them. The woven-wire fabric is drawn over the spring-bars E, and when drawn sufficiently taut and fastened the said bars will be depressed inward or toward the center of the mattress, as illustrated in that portion of Fig. 1 in which the woven-wire fabric is shown.

By curving the outer sides of the end rails and also the end pieces which are secured thereto, the wires of the fabric will be shorter at the center of the mattress than at its sides, and hence the mattress will be somewhat stronger at its center than at its sides.

The springs, which are secured to the end rails and which support the bars over which the wire fabric is drawn, constitute in themselves efficient spring for the mattress irrespective of the resilient properties of the wire fabric, and, moreover, they serve to exert a constant tension upon such fabric and to take up all objectionable slack in the same.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, in a spring-mattress, of the woven-wire fabric with the end rails of the frame having bow-shaped outer sides and the end pieces made with a corresponding curvature, the ends of the fabric being secured between said end pieces and end rails, substantially as described.

2. The combination, in a spring-mattress,
of the woven-wire fabric with the end rails of
the frame having bow-shaped outer sides, the
bow-shaped end pieces secured to the rails
5 and clamping the ends of the wires thereon,
and the bars E, supported by springs D, sub-
stantially as described.

In testimony that I claim the foregoing as
my own I affix my signature in presence of
two witnesses.

JAMES TALLMEDGE ELWELL.

Witnesses:

M. G. THOMPSON,
EDGAR L. BREYER.