T. F. ALLYN.

Car Spring.

No. 48,250. Patented June 20, 1865.

Fig. 1.

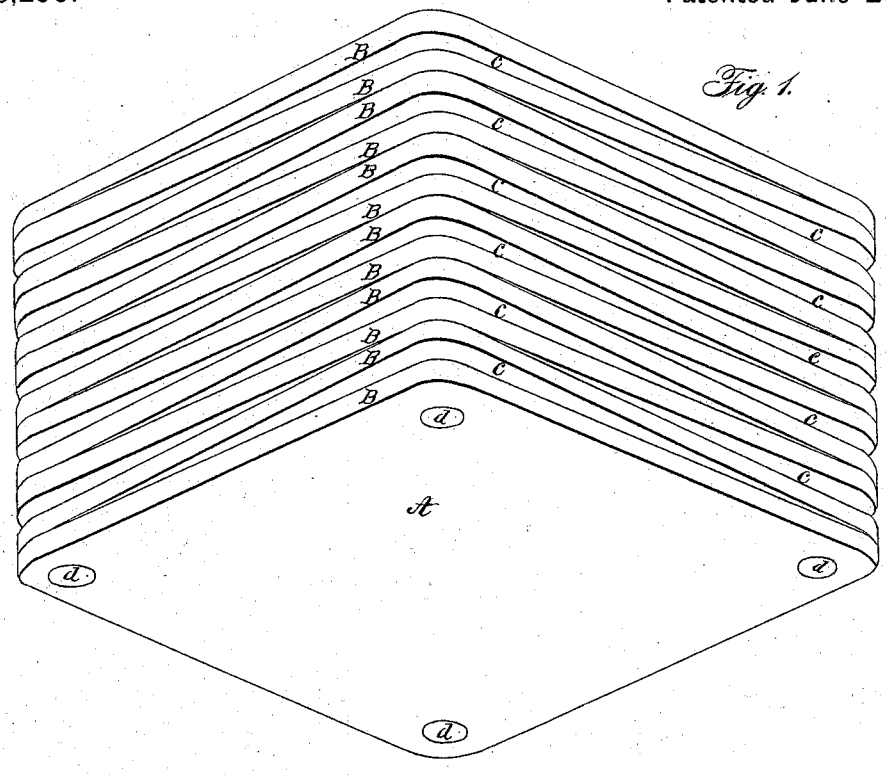
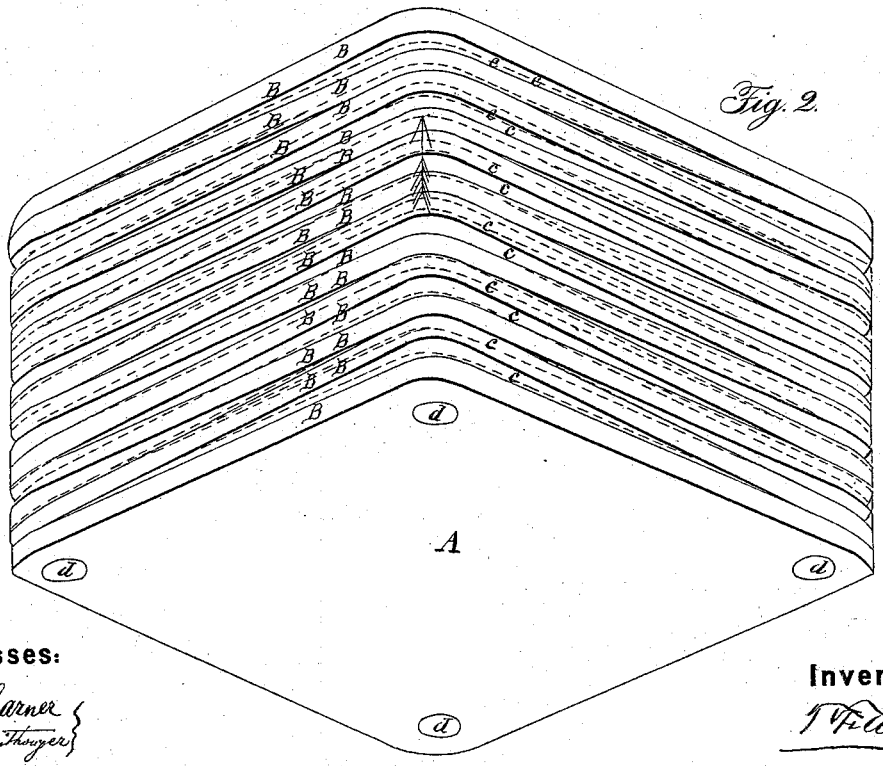


Fig. 2.



Witnesses:

C. L. Garner
Jno. L. Smithsoyer

Inventor:

T. F. Allyn

UNITED STATES PATENT OFFICE.

T. F. ALLYN, OF CANANDAIGUA, NEW YORK.

IMPROVEMENT IN CAR-SPRINGS.

Specification forming part of Letters Patent No. **48,250**, dated June 20, 1865; antedated March 28, 1865.

To all whom it may concern:

Be it known that I, T. F. ALLYN, of Canandaigua, in the county of Ontario and State of New York, have invented a new and useful Improvement in Car-Springs, called "Allyn Car-Springs;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification.

Figure 1 is a perspective view of my spring, which is represented as not being under pressure. Fig. 2 is also a perspective view of the same, being represented under pressure.

The nature of my invention consists in the construction of a metallic car-spring with square or rectangular plates curved diagonally and fastened together at the corners, and thus pairs are formed alternately which bear upon each other at the corners and through the centers diagonally, and by means of these transverse bearings or fulcra the spring is made to work or vibrate and graduate to required pressures upon it, and by same means the fulcra or bearing-points of the plates are changed alternately by being lengthened and shortened when the spring vibrates, and it is thus, to a great extent, protected against breaking.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I give all the plates B a curvature diagonally, and with the rivets *d* fasten them alternately together at the corners, and thus the spring is formed. The transverse openings C diminish to and from the respective corners of the spring, and when the spring is being depressed these openings gradually close to a point, when the spring commences to react.

It is well known that steel may be made to deflect a given distance and not be liable to break. Upon this principle I have constructed my spring. The plates being worked or deflected diagonally produce the desired result, and the spring is in a complete and merchantable form.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction of a metallic car-spring with square or rectangular plates B, curved diagonally and fastened together alternately at the corners with rivets *d*, substantially as described in my specification, and for the purpose set forth.

T. F. ALLYN.

Witnesses:

C. L. GARNER,

JNO. L. SMITHMYER.