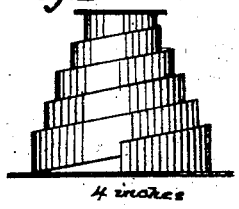
S. BAKER.

CARRIAGE SPRING.

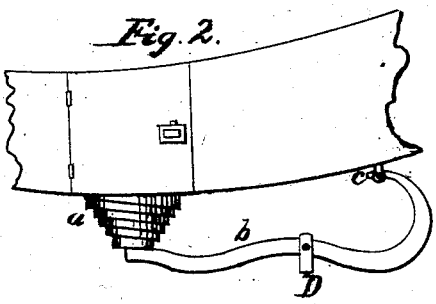
No. 788. Patented June 19, 1838.

Fig. 1. 1½ inch



4 inches

Fig. 2.



UNITED STATES PATENT OFFICE.

REMEMBER BAKER, OF ELBA, NEW YORK, EXECUTOR OF STANNARD BAKER, DECEASED.

SPIRAL SPRING FOR AND MODE OF APPLYING IT TO CARRIAGES.

Specification of Letters Patent No. 788, dated June 19, 1838.

To all whom it may concern:

Be it known that I, REMEMBER BAKER, of the town of Elba, in the county of Genesee and State of New York, am the executor of the last will and testament of STANNARD BAKER, deceased, late of the same place; that the said STANNARD BAKER in his lifetime invented a new and useful Improvement in springs for carriages and coaches of all descriptions and in the manner of applying the same, which can be used with or without a lever; and I do hereby declare that the following is a full and exact description.

The conical spring is made of a flat piece of steel of any given width and thickness according to the strength of the spring desired, rolled up into a spherical cone (see Fig. 1, in the drawing herewith annexed) so that about one half or three fourths of the width of the steel will be exposed, the base being a large circle and diminishing in size toward the top and coming more or less to a point to suit the maker. A tapering bolt with a square tenon at the small end may be used for the purpose of rolling the steel into the shape of a cone desired. It is applied vertically and inverted and may be used by putting one spring under the center of the wagon, resting upon levers or by placing one at each corner resting upon the bolsters.

The manner of using the conical spring with levers is as follows: The conical spring is inverted (see *a*, Fig. 2) with the small end resting upon a small bar of iron attached and running across the small end of the spring horizontally. To this bar is to be attached four crooked iron levers, (see *b*, Fig. 2,) two on each side, upon the outer ends of which rest the four separate corners of the wagon body, attached by shackles (see C Fig. 2) which levers are attached to the bolsters of the wagon by shackle posts (see D, Fig. 2). The shackle posts are fastened to the levers by bolts and may have knuckle joints close to the upper side of the bolster and by removing the pin backward or forward on the lever, its power may be increased or diminished, according to the load. The shackles attached to the bolster play on a bolt passing through an oblong hole in the lever, and form a fulcrum for the lever. The lever should be crooked so that the body of the wagon may hang on a level with the spring. By means of the pressure upon the spring the weight of the load may be ascertained by attaching to one side or both sides of the upper part of the spring a thin strip or strips of iron or steel placed perpendicular and marking upon the same by experiment or trial a scale of weights. As said strip is carried down through a hole in a thin plate of steel attached to the small end of the spring, by any pressure upon the wagon, the weight will be shown upon the scale. Or the conical spring may be used by placing four springs, one under each corner of the wagon body, and resting upon and fastening the same to the bolsters by means of bolts.

What I claim as the invention of the said STANNARD BAKER and desire to secure by Letters Patent, is—

The invention of the spiral conical spring made of flat plates of steel and the manner of using the same by means of levers, as herein described.

REMEMBER BAKER,

Executor of the estate of Stannard Baker, deceased.

Witnesses:

W. U. SOPER,

JAMES B. LAY.