G. F. GODLEY.
Car-Spring.

No. 198,843. Patented Jan. 1, 1878.

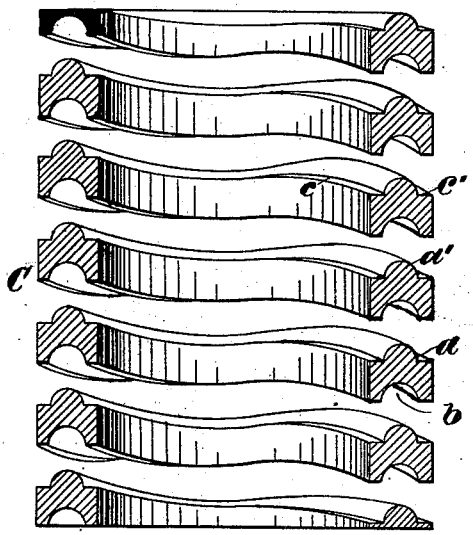

Fig. 1

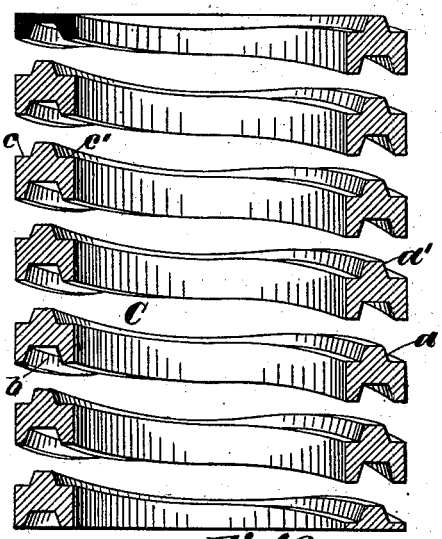

Fig. 2

Fig. 3.

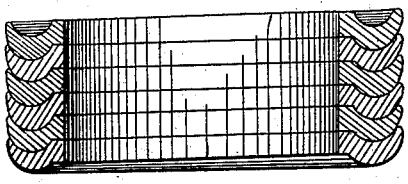

Fig. 4.

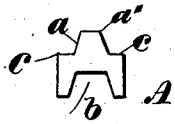

Fig. 5.

Witnesses
Saml. J. VanStavoren
J. Bernard Connolly

By

Inventor
George F. Godley
Connolly Bros.,

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE F. GODLEY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-SPRINGS.

Specification forming part of Letters Patent No. **198,843**, dated January 1, 1878; application filed June 25, 1877.

To all whom it may concern:

Be it known that I, GEORGE F. GODLEY, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Car Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figures 1 and 2 are transverse vertical sections of my improved car-spring. Fig. 3 is a transverse vertical section of a modification of my invention. Figs. 4 and 5 are end views of bars from which said springs may be coiled.

My invention has for its object to provide a spiral spring so constructed that the coils thereof will be prevented from lateral displacement upon one another; and my improvement consists in forming a spiral spring from a bar having a ridge or bead on one side, a corresponding groove or depression on the other side, and one or more bearing-shoulders projecting laterally, so that when said spring becomes "solid" under pressure the ribs or beads on one coil will enter the grooves on the other, and the bearing-shoulders come together, preventing lateral displacement of the coils.

Referring to the accompanying drawings, A designates a steel bar, having on one of its sides a rib, bead, or tongue, *a*, having either a rounded or a sharp apex or edge, *a'*, and on its opposite side a corresponding groove or depression, *b*.

C represents a spiral spring, made from the bar A, such spring being preferably edge-rolled, though, if desired, the bar may be rolled on its flat side. The rib may be on either the upper or lower side of the coils, and the groove the same. In either case the rib or ribs of one coil will coincide with the groove or grooves of the adjacent coils in such manner that said rib will enter said groove when the spring is compressed.

The rib or tongue and groove should be of less width than the bar, so as to leave shoulders on each side, as shown at *c c'*, to afford side bearings or supports to the coils when they come together.

It will be observed that by this construction not only are the coils prevented from lateral displacement upon one another under pressure, but the strength and resilient powers of the spring are increased by the formation of the rib *a*. The bar can be formed so that when the spring is wholly compressed the coils will touch each other, either on the inner or outer bearing-shoulders alone, or in the middle of the bar.

What I claim as my invention is—

1. A spiral spring having a bead or rib and a corresponding groove on its upper and lower faces, with bearing-shoulders on either side of said rib and groove, substantially as shown and described.

2. A spiral car-spring made from a bar of metal which has one or more ribs or beads, with corresponding groove or grooves on the opposite side, with one or more bearings or shoulders projecting from said rib or ribs, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of June, 1877.

GEORGE F. GODLEY.

Witnesses:

SAML. J. VAN STAVOREN,

CHAS. F. VAN HORN.