(No Model.)

A. BARLING.

SPRING FOR VEHICLES.

No. 354,672. Patented Dec. 21, 1886.

Fig. 1

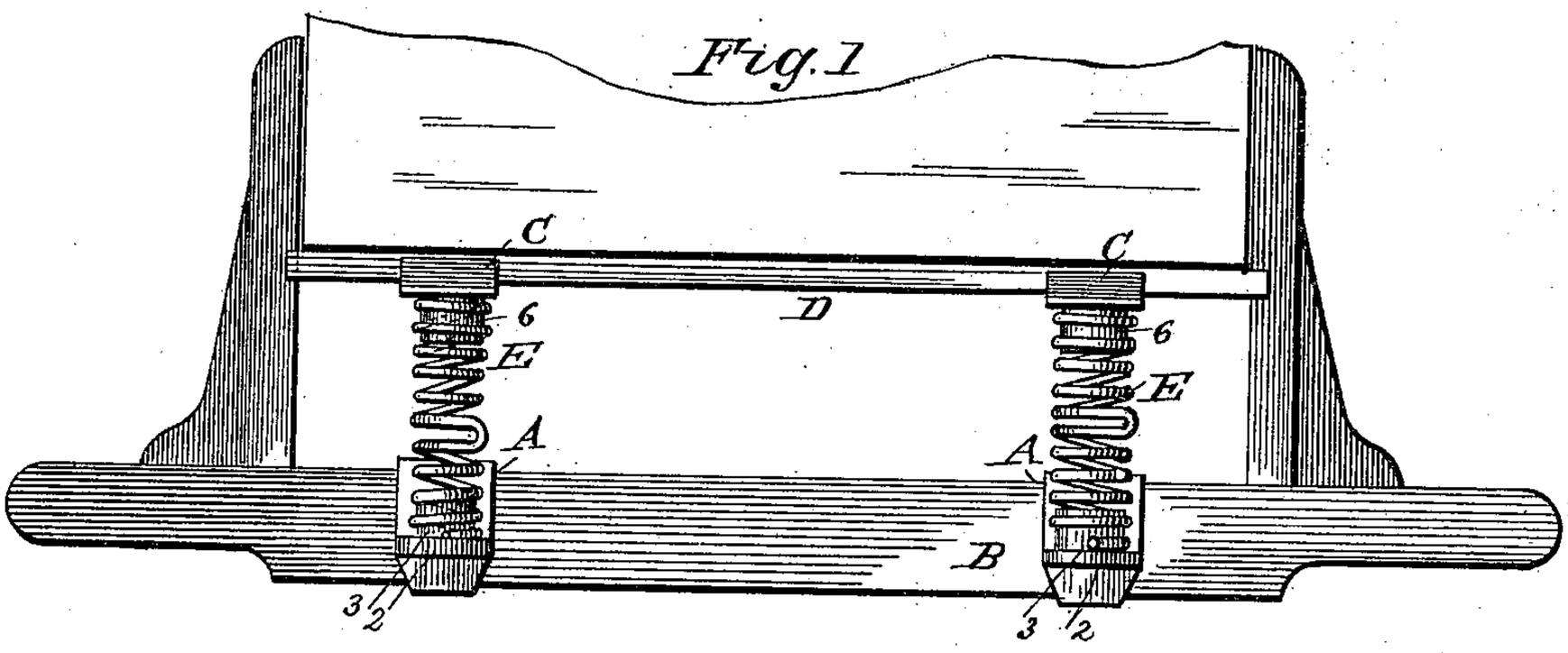
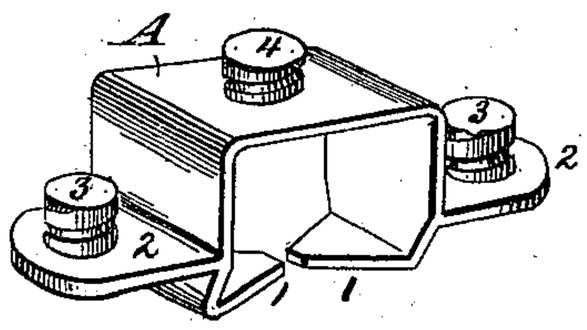


Fig. 2.



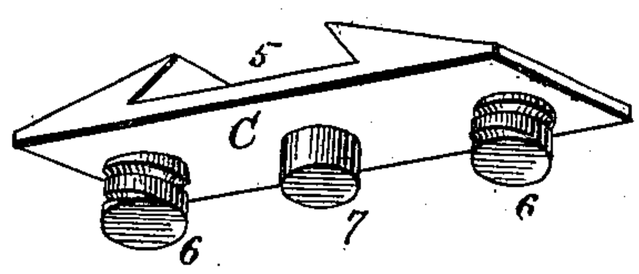


Fig. 3.

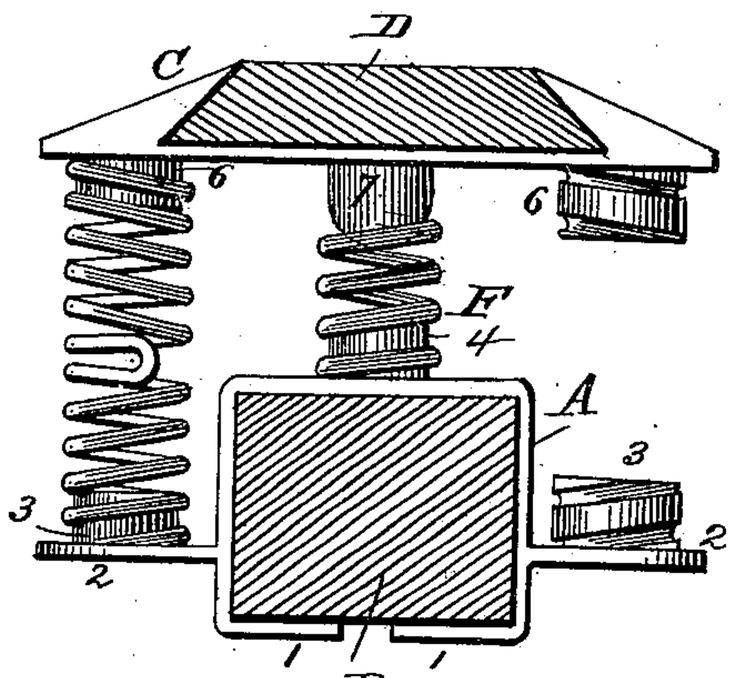
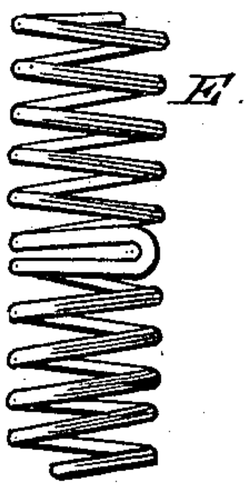


Fig. 4



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UNITED STATES PATENT OFFICE.

ALBERT BARLING, OF RACINE, WISCONSIN.

SPRING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 354,672, dated December 21, 1886.

Application filed September 10, 1886. Serial No. 213,254. (No model.)

To all whom it may concern:

Be it known that I, ALBERT BARLING, of Racine, in the county of Racine and State of Wisconsin, have invented a new and useful Improvement in Vehicle-Springs, of which the following is a specification.

My invention is an improvement in springs for vehicles, and seeks to provide a simple easily-applied device which will be cheap in construction and not likely to easily become broken or get out of order.

The invention consists in certain features of construction and novel combinations of parts, as will be described.

In the drawings, Figure 1 is a view of my improvement in connection with parts of a wagon body and bolster. Fig. 2 is a detail view of the top and base-plate or saddle. Fig. 3 is a sectional view, the spring devices being shown in side view; and Fig. 4 is a detail view of one of the main springs.

The base-plate or saddle A is fitted to embrace the bolster B, and is formed with inwardly-projected jaws 1, adapted to fit under the bolster, and with lateral lugs 2, which latter extend outward near the lower side of the saddle. Studs 3 are mounted on the lugs 2, and project upward, and on the top of the saddle I also mount an upwardly-projected stud, 4. These studs 3 3 and 4 are grooved spirally or threaded to receive the springs presently described.

The top plate, C, is formed in its upper side with a groove or mortise, 5, fitted to receive the body-bar D, and which mortise is formed dovetail or undercut, so it may be held to the body-bar, and yet be adjusted along the same to any desired point.

From the under side of plate C threaded studs 6 6 and a plain stud, 7, project down, the former, 6 6, near their ends and the latter, 7, at or near its middle.

The main springs E E are coil-springs, as is also the auxiliary spring F. The spring F is threaded onto the stud 4 by its coils entering the grooves of said stud, while its upper end encircles the stud 7, so the latter will enter the auxiliary spring, in order that the said spring may serve as a brace to aid in retaining the top plate vertically above the saddle.

I form each of the main springs of a rod or wire of metal, bent upon itself at the center and coiled thence in opposite directions toward its ends, thus forming a right-hand thread at one end and a left-hand thread at the other. The studs 3 3 and 6 6 are correspondingly threaded. By such construction it will be readily perceived the main springs may be turned in one direction to be threaded onto the studs 3 and 6 and in the opposite direction to be removed therefrom. The main springs are of such size that they will bear any ordinary weight or strain, being of a length to relieve the auxiliary spring until an unusual depression of the main springs will bring the auxiliary one into play, the latter being formed usually stronger and less elastic than the main springs. By this construction the spring may be easy-riding under a small load, and yet be supplemented to properly bear a much heavier load by means of the auxiliary spring arranged and operating as before described.

Having thus described my invention, what I claim as new is—

1. The saddle or base-plate and the top plate, both having studs grooved or threaded, as described, combined with the spring having its ends coiled in opposite directions, substantially as set forth.

2. The combination, with the base-plate or saddle, of the springs and the top plate having a mortise or groove fitted to receive the body-bar, the walls of said mortise or groove being undercut, substantially as set forth.

3. The combination of the top plate having studs 6 6 and 7, the base having studs 3 3 and 4, the main springs, and the auxiliary spring secured on the stud 4 and fitted around the stud 7, substantially as set forth.

4. The improvement in vehicle-springs, substantially as herein described, consisting of the base-plate or saddle adapted to embrace the bolster and having lugs and threaded studs, and the top plate having an undercut mortise fitted to receive the body-bar and provided with studs, and the former being threaded, the main springs having their opposite ends coiled in opposite directions, and the auxiliary spring, substantially as set forth.

ALBERT BARLING.

Witnesses:
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ADAM KOMES.