(No Model.)

W. S. NOYES.

SUPPORT FOR ELLIPTIC SPRINGS.

No. 500,600. Patented July 4, 1893.

Fig. 1.

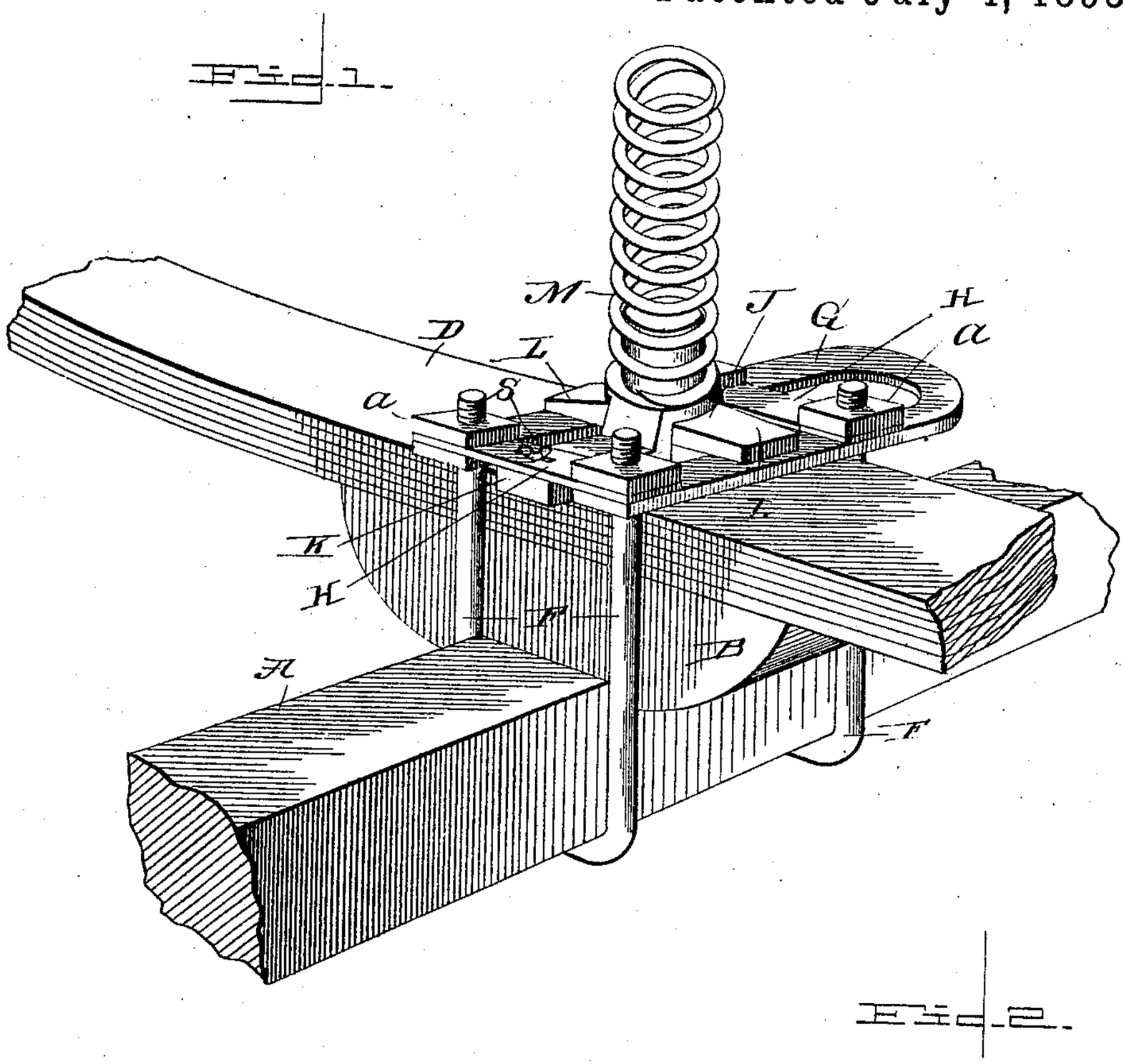

Fig. 2.

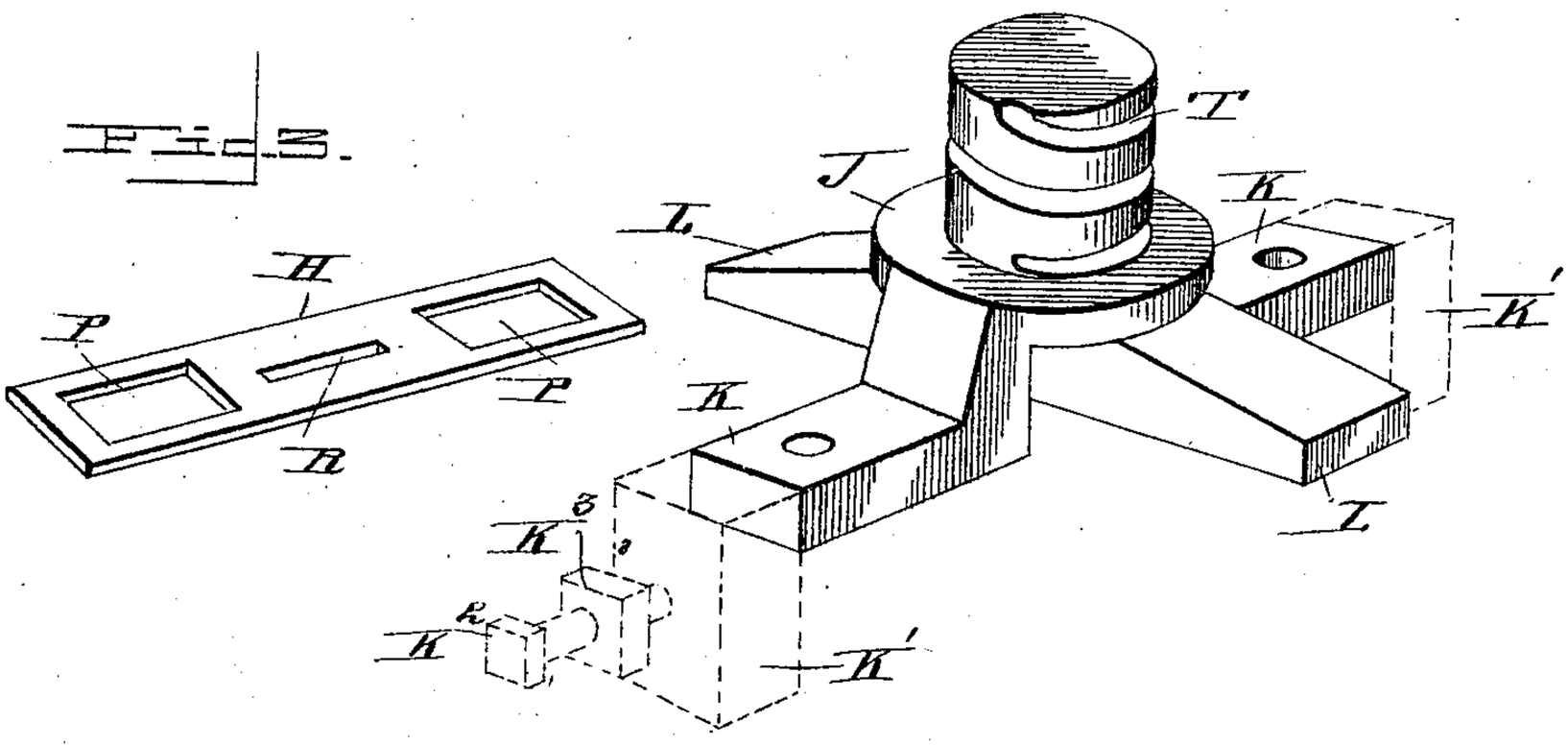

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM S. NOYES, OF CHICAGO, ILLINOIS.

SUPPORT FOR ELLIPTIC SPRINGS.

SPECIFICATION forming part of Letters Patent No. 500,600, dated July 4, 1893.

Application filed September 30, 1892. Serial No. 447,407. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. NOYES, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Supporters for Elliptical Springs, of which the following is a clear and exact description.

My invention relates to vehicle spring-supports, and it consists in the construction and novel combination of parts as hereinafter described, and specifically pointed out in the appended claims.

The object of my invention is to provide a spring-supporting device which is designed to supersede the rubber bumpers commonly used with elliptical springs to relieve the springs of the jar that is imparted to them in traveling over rough or uneven roads.

My invention consists of a helical coil or spiral-spring attached to a holder by means of a threaded post on the holder, and binding-plates to secure the holder safely in its proper position when the spring-support is in use.

Referring to the accompanying drawings, Figure 1, is a perspective view of my improvement, showing a portion of a spring and an axle. Fig. 2, is a perspective view of my improved holder. Fig. 3, is a view of my improved binding-plate.

In the drawings A, designates a portion of the axle of a vehicle; B, the spring-block mounted thereon, and D, a portion of one of the elliptical springs employed to support the vehicle-body upon the running-gear, the spring being confined to the spring-block in the usual manner by means of clips F, passing beneath the axle, the upper ends of the said clips projecting through the strap-loop G, and these projecting ends being provided with nuts *a*, as shown. The holder J, is of a novel and peculiar shape, the upper part being made with a thread or spiral groove T, to receive the spiral spring and the base or lower part of a shape similar in form to a Greek cross with arms L L, and K K, arranged in different planes—that is, when the holder is in the position shown in Fig. 1, the arms K, K, occupy a plane some distance below that occupied by the arms L, L, or vice versa if the position of the holder be reversed. The function of this peculiar arrangement will appear later on.

In assembling the various parts of the device, the spiral spring M, screws on the post or holder J, and the two thus fastened are placed on the elliptical spring (see Fig. 1) so that the arms L L, of the holder rest upon the strap-loop G, and the arms K K, rest upon the top of the spring D, between the clips F, and between the parallel sides of the said strap loop G. The nuts *a* are removed, and the binding-plates H, laid across the arms K K, one plate being on each side of the elliptical-spring and parallel to it, and the upper ends of clips F, passing through the bolt-holes P P, in the binding-plates.

After placing the various portions of my device in position the nuts *a* are then screwed back into position, holding the binding-plates between the strap-loop and the nuts with the arms K K, of the holder under the binding-plates. As is obvious the binding-plates may be secured to the arms of the holder over which they pass, through the medium of set-screws S, which pass through the binding-plates at R, into the arms K, at T.

In the drawings I have illustrated the spring-support attached to the lower half of the elliptical spring, but as is obvious this manner of securing the support is not essential to insure the successful operation of my device, since I may invert the spring-support and accomplish the same result.

While I have illustrated and described my device as employed in connection with road-vehicles, it is evident that it may be adapted for use with slight modifications in various other locations.

Having thus fully described my invention, what I claim herein as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a vehicle spring and its axle, of a holder having a threaded post and a base provided with arms arranged in different planes, a strap-loop interposed between one set of arms and the spring, binding-plates resting upon the said loop and the other set of arms, clips passing around the axle and projecting through the said loop and the plates, and nuts on the clips.

2. The combination, with a vehicle-spring and its axle, of a holder having a base provided with arms arranged in different planes and a threaded post located centrally of the base, a coiled spring engaging the said post, a strap-loop interposed between one set of arms and the spring, binding-plates resting upon the said loop and the other set of arms, clips passing around the axle and projecting through the said loop and the plates, and nuts on the clips.

3. As a new article of manufacture, a holder for a spiral-spring, consisting of a base having arms arranged in different planes and a threaded post located centrally of the arms.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM S. NOYES.

Witnesses:
HARRISON H. ROUNTREE,
THOMAS R. FERRIS.