(No Model.)

# T. J. CHRISTY.

## WHIFFLETREE EVENER SPRING CASING.

No. 336,991. Patented Mar. 2, 1886.

Fig. 1.

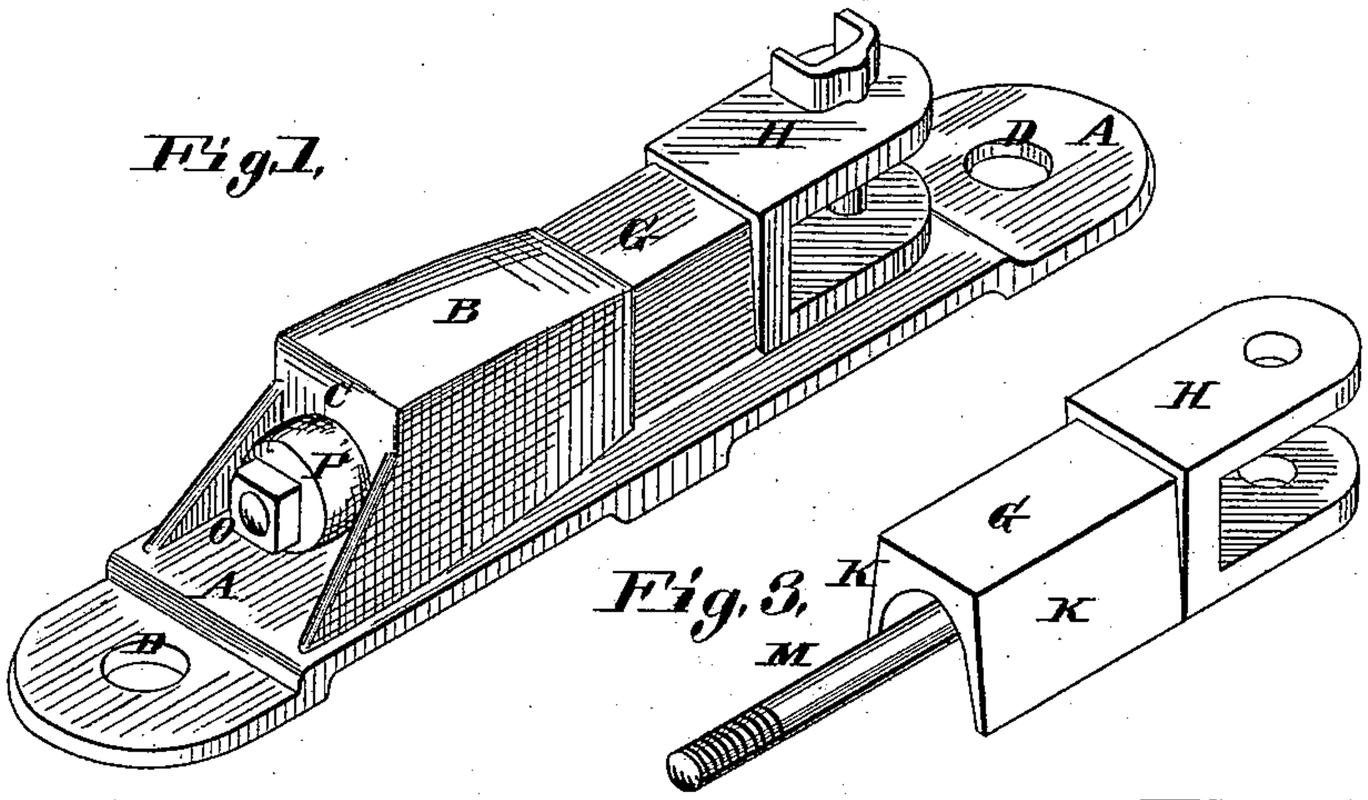


Fig. 3.




Fig. 2.

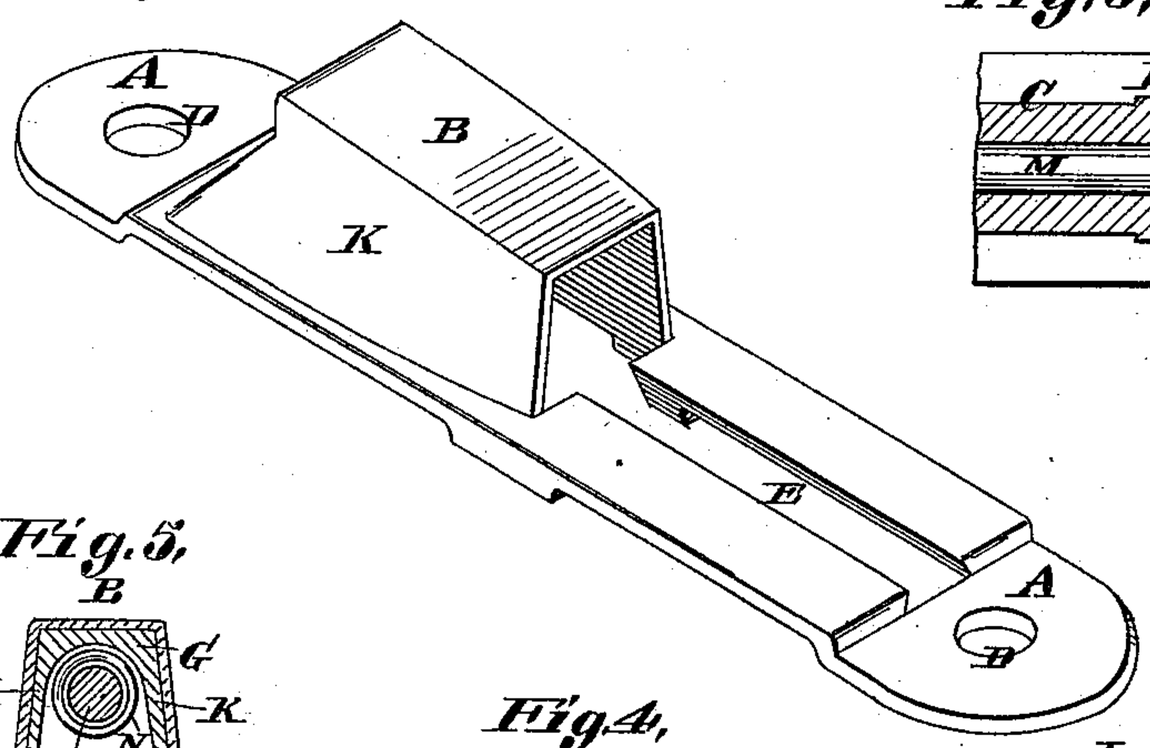


Fig. 6.

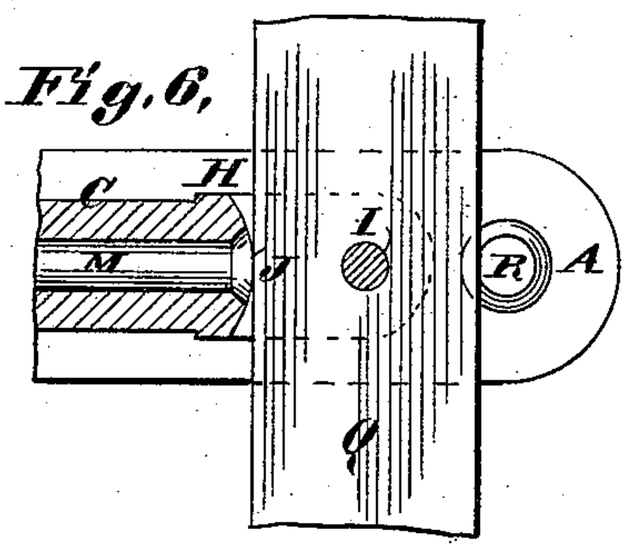


Fig. 5.

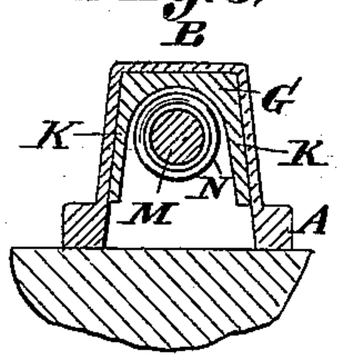


Fig. 7.

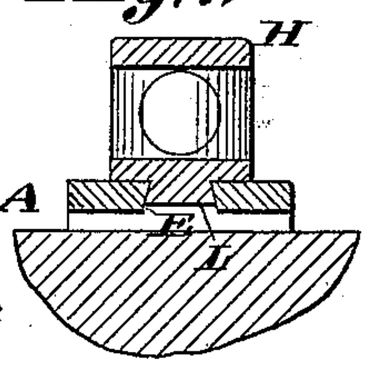


Fig. 4.




Attest;
Charles Pickles
J. Kinchman Jr.

Inventor;
Thomas J. Christy

# UNITED STATES PATENT OFFICE.

THOMAS J. CHRISTY, OF LEBANON, ILLINOIS.

## WHIFFLETREE-EVENER SPRING-CASING.

SPECIFICATION forming part of Letters Patent No. 336,991, dated March 2, 1886.

Application filed November 19, 1885. Serial No. 183,296. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS J. CHRISTY, a citizen of the United States, residing at Lebanon, in the county of St. Clair and State of Illinois, have invented certain new and useful Improvements in Whiffletree-Evener Spring-Casings or Housings for Same, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates more particularly to the manner and form of constructing a metallic frame or housing in which is secured a spiral spring, so that it will be more durable and convenient in detaching and replacing the whiffletrees when desired to be used in doubling teams or other purposes.

The object of the device is to reduce the shock or jerk upon the shoulders of animals when engaged at work and equalize the strain.

It will be seen that when my device is secured to the pole or tongue of a vehicle the double-tree or evener can be attached to draft-block without any change or expense, the difficulty of which is experienced in other forms of devices now in use.

The detail construction and advantages of my improvements will be more fully understood and explained by referring to the drawings.

Figure 1 is a perspective view of draft-block all fitted together; Fig. 2, perspective view of housing and plate A A, having dovetail slot E, bolt-holes D D, and housing B, which is cast in one piece ready for inserting head-block; Fig. 3, perspective view of head-block, which is also cast in one piece, ready for inserting bolt M, which is made of wrought-iron, but may be cast with head-block, if desired. Fig. 4 is a vertical longitudinal section showing manner of attaching to tongue; Fig. 5, cone-section on line 5 5 of Fig. 4; Fig. 6, horizontal section on line 6 6 of Fig. 4; Fig. 7, cone-section on line 7 7 of Fig. 4.

A is the housing-plate; B, housing; C, bearing for spring; D, bolt-holes; E, dovetail slot; F, tongue; G, head-block shank; H, head; I, bolt; J, convex surface; K, flaring sides; L, dovetail block; M, bolt; N, spring; O, nut; P, buffer-block; Q, double-tree; R, bolts. It will be seen that the bolt M passes through the entire length of the spring N, as shown in Fig. 4, which always keeps the spring in its true position, so that the draft and strain is in a true and direct line forward. The convex surface J, as shown in Fig. 6, allows the double-tree to work back and forward, so that the pressure is always in a true and direct line. It will also be seen that the draft is not entirely upon the bolt I, as the double-tree presses forward against the convex surface J, and the bolt I holds the double-tree in its true and proper place. By withdrawing the bolt I and pulling the double-tree back out of the head-block the teamster can readily detach his team with the whiffletrees, and hitch the same to any other vehicle, which is very desirable in doubling up teams. When the team is drawing, the head-block H presses forward against spring N, and the shank G telescopes into the housing B far enough to allow the spring to be entirely closed when the strain or pressure is sufficient to do so. The dovetail block L, sliding in dovetail slot E, keeps the head-block H in a true and direct line of pressure. The buffer-block P is made of rubber or other suitable material, and serves to take up the shock and strain caused by the evener or double-tree Q after the compression of the spring. The nut O secures and keeps the buffer P and bolt M in their proper places, and, when desired, is used to regulate the tension of the spring or take up slack motion that may be caused by continued use.

My manner of constructing the head H and head-block shank G, having flaring sides K K sliding upon plate A into housing B, always keeps the spring from being exposed to the weather and liable to become clogged with mud, ice, or snow and its utility destroyed.

My device is strong and durable, and is very simple and easily constructed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the case-plate A, housing B, bearing C, dovetail slot E, with the shank G, having head H, bolt M, and spring N, constructed substantially as shown and described.

2. The head-block having shank G, head H, convex surface J, and inclined sides K, as shown and described.

3. The plate A, having the housing B and dovetailed slot E, constructed substantially as shown and described, for the purposes set forth.

4. The plate A, constructed as shown and described, with housing and dovetail slot, in combination with the head-block having the spring N, bolt M, buffer-block P, and nut O, arranged to operate as shown and described.

THOMAS J. CHRISTY.

Witnesses:
C. PESOLD,
JAS. J. MCKEE.