

(No Model.)

J. W. WETMORE.
WAGON TONGUE SUPPORT.

No. 253,902.

Patented Feb. 21, 1882.

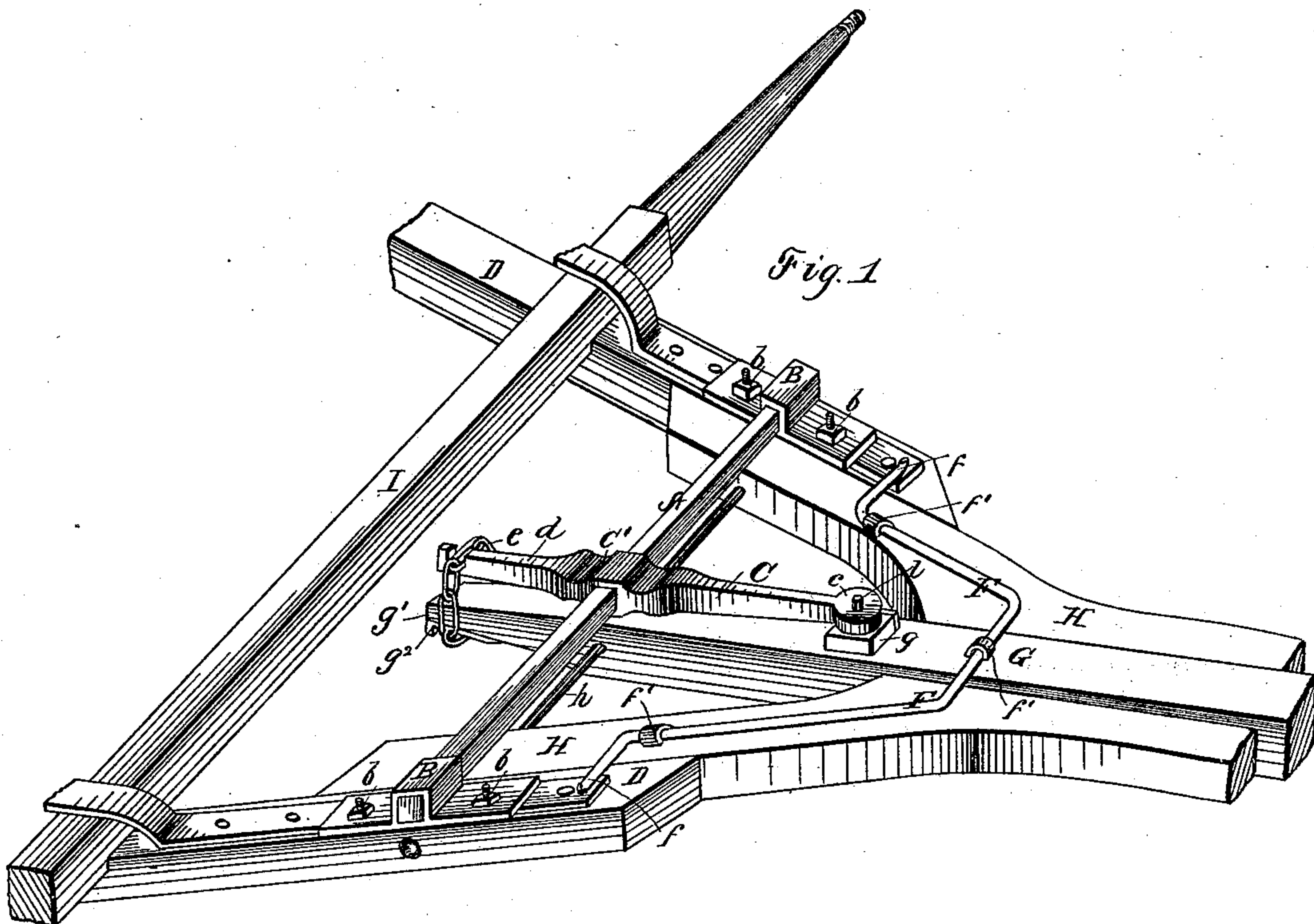


Fig. 2.

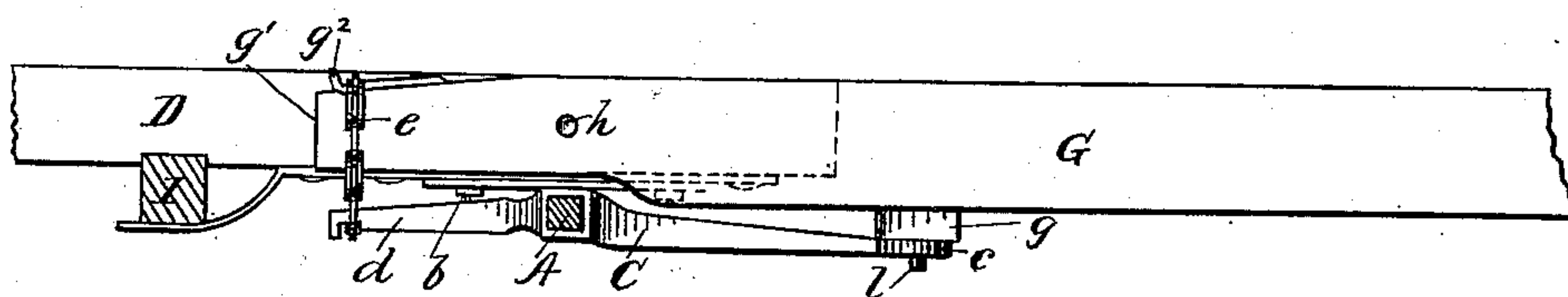


Fig. 3.

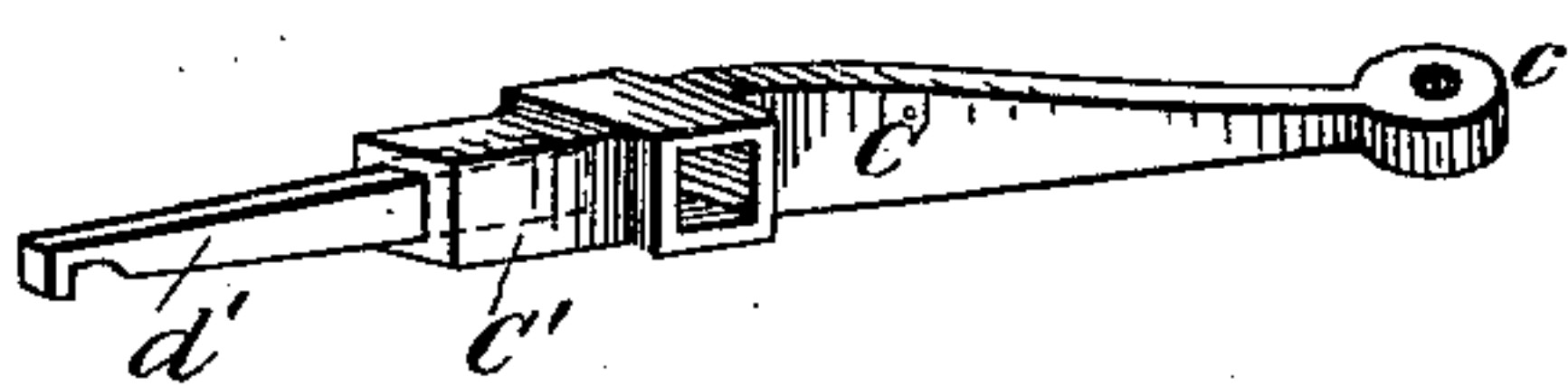


Fig. 4.

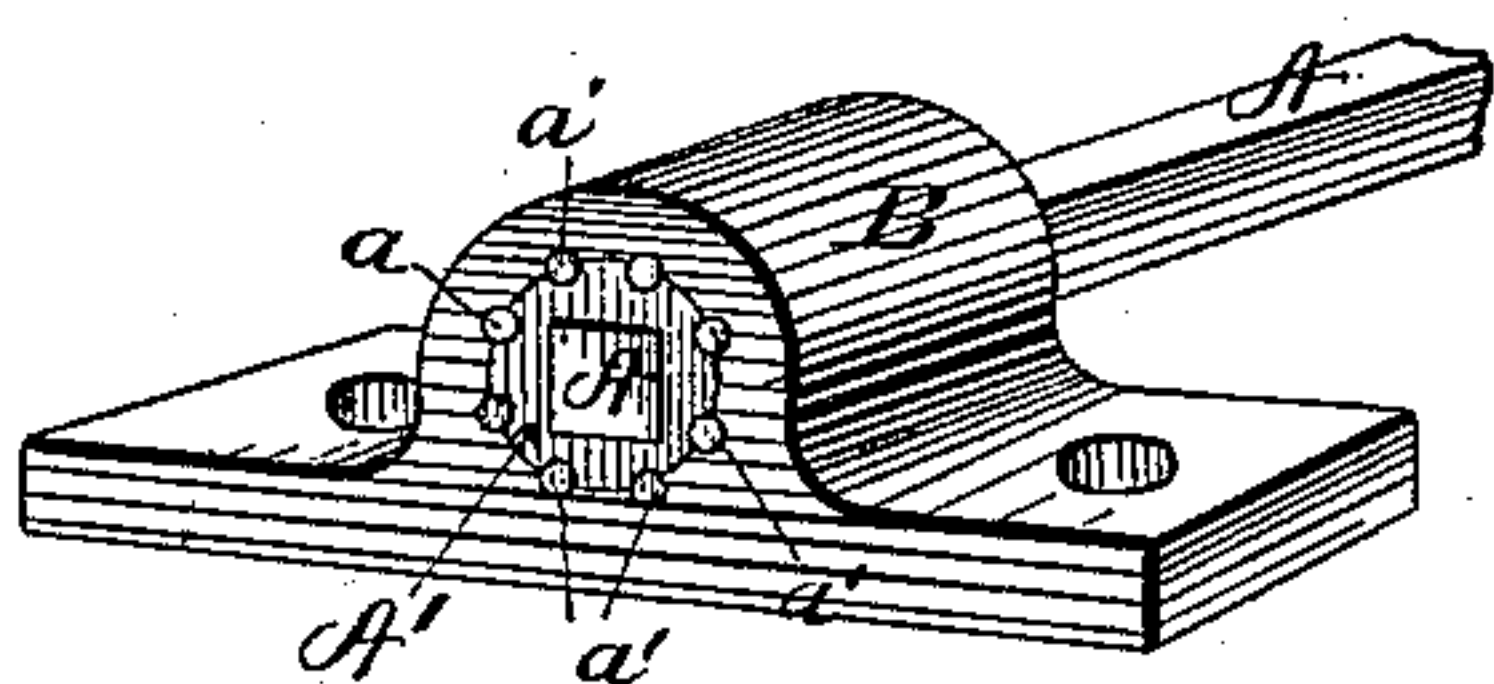


Fig. 5.

Witnesses
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WAGON-TONGUE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 253,902, dated February 21, 1882.

Application filed June 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, JEROME W. WETMORE, a citizen of the United States, residing in the city of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Wagon-Tongue Supports, of which the following is a specification.

My invention relates to the support of the forward ends of wagon-tongues by means of torsion-springs; and the objects of my improvement are to produce a simpler and more complete application of torsion-springs to the purpose by bolting the straight square bar spring to the hounds under and parallel with the axial bolt, with a lever running forward to hold up the tongue, and a counteracting spring fastened under the tongue and restraining its excessive rise by bearing against the hounds. I accomplish the objects by devices represented in the accompanying drawings, of which—

Figure 1 represents a perspective view of the springs placed on the under side of the tongue; Fig. 2, a side view of the lifting arm or lever C; Fig. 3, a side view of the same lever with adjunct lever *d*; Fig. 4, another representation of the box B, holding the key-box within it; Fig. 5, a section of the spring-bar A with the key-box on the end of it. The purpose of the key-box is to set and regulate the spring A. The spring A is applied to sleigh-tongues by bolting B to the rails or runners.

A is the steel spring-bar, of a square or rectangular section; B, the boxes holding the ends of this bar, or the key-boxes; C, the lifting arm or lever grasping the middle of the bar A, and extending forward under the tongue from eight to sixteen inches; D, the hounds of the wagon.

d is the depressing arm or lever, extending from the end of the lever C back to the end of the tongue, to which it is attached by a chain. The action of the spring through this arm is to depress the end of the tongue back of the axial bolt, and thus partially counterbalance the strain of this bolt in its bearings in the pole and hounds. This arm is put in place in the

socket *c'*, Fig. 3, after C is in place, for it is difficult to connect this arm if it is continuous, as in Fig. 1.

e is the connection of the end of the tongue with the end of *d*; F F, a torsion-spring acting, when the tongue rises too high, counter to spring A. The arms *f f* strike the hounds as the tongue begins to rise above them, and the depressing force of this spring increases as the tongue tends to rise to an excessive height.

f' f' f' are the boxes or bearings of the spring F F.

g is a small block, of wood or iron, with a small hole in it, taking a nail or bolt with a head on the upper side. The thickness of *g* may be increased or diminished to supplement the regulation of the height of the tongue.

G is the wagon tongue or pole; *g'*, the end of the tongue; *g''*, a bent strap to hold *e* in place; H, the braces or brackets of the tongue; *h*, the axial bolt.

b represents the bolts holding the box B. In attaching the spring to a wagon already built longer bolts replace those already in the strap-irons of the hounds.

a represents the grooves in the key-box. Several corresponding grooves are represented in the box B, Fig. 4; but only one is necessary in this box.

A small bolt, key, or wedge holds the spring A in the end of the lever C. The spring A is applied as follows: After the key-box is placed loose in the bearings B the tongue is raised, block *g* is placed on the end of the lever, and key *a'* is put in place, the lever being at the proper elevation, when the tongue is dropped onto the spring. Lever C is then depressed until arm *d'* is put in place.

The arms and boxes are preferably composed of malleable iron.

Spring F is adapted to any particular tongue or class of wagons by the size of the rod, lengths of the sections from the arms *f f* forward, and the lengths and curvature of arm *f*.

What I claim is—

1. The square torsion-spring bar, when both of its ends are held by bearings bolted to the

hounds under the axial bolt, in combination with the movable central iron arm, C, substantially as described.

2. The torsion-spring bar attached to the
5 hounds under the axial bolt, in combination with the arms C and d, substantially as described.

3. The counter torsion-spring F, substantially as shown, for the purpose specified.

4. The combination of the straight torsion- 10
spring wagon-tongue support, held by bearings at its ends, with the key-boxes for adjusting the lifting strain, substantially as described.

JEROME W. WETMORE.

Witnesses:

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