No. 720,198. PATENTED FEB. 10, 1903.

C. WAHL.

EMERGENCY DRAFT HOOK.

APPLICATION FILED SEPT. 28, 1901.

NO MODEL.

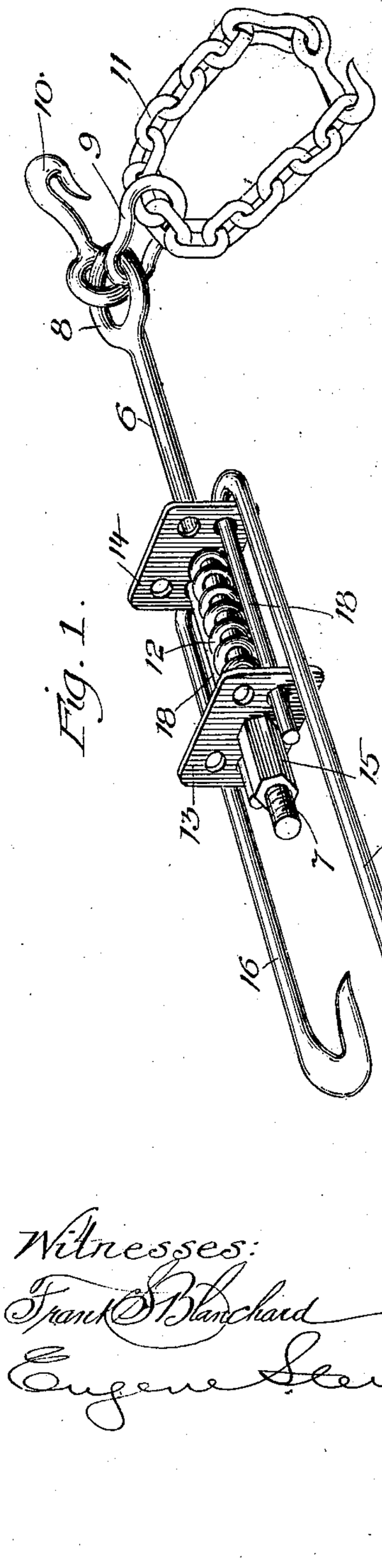

Fig. 1.

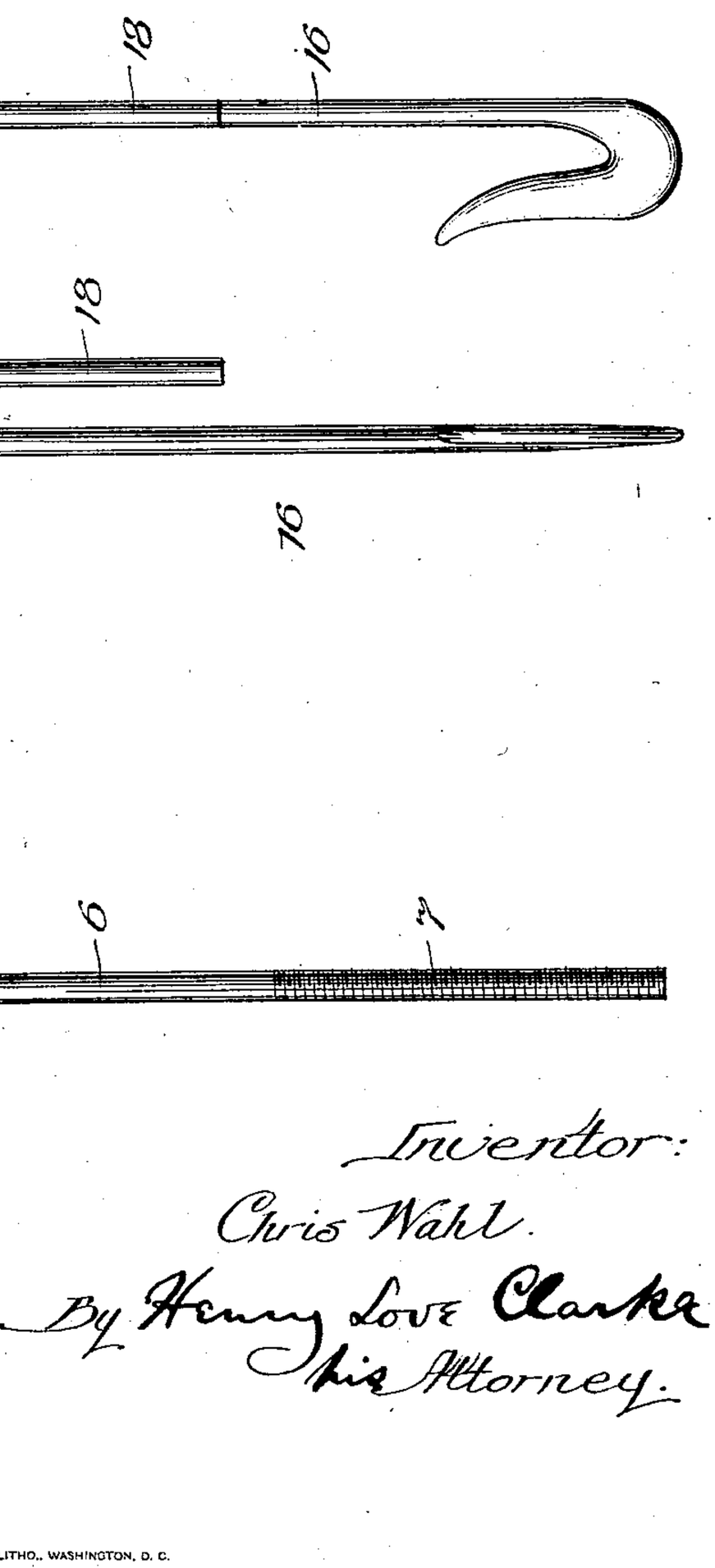

Fig. 3.

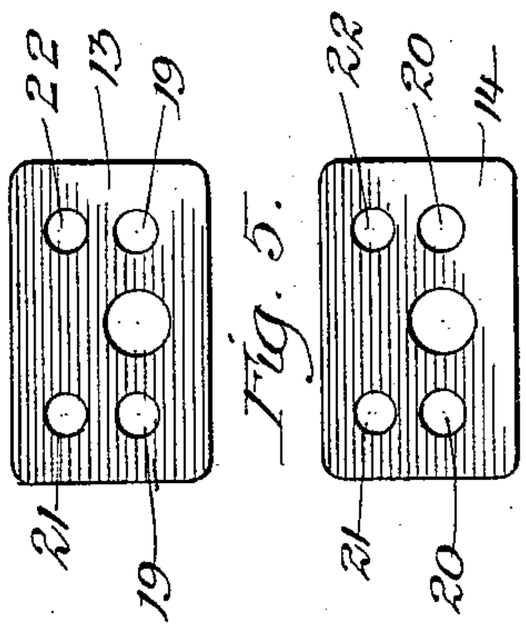

Fig. 4.

Fig. 5.

Fig. 2.

Witnesses:
Frank S. Blanchard
Eugene Steward

Inventor:
Chris Wahl.
By Henry Love Clarke
his Attorney.

UNITED STATES PATENT OFFICE.

CHRIS WAHL, OF WEST CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO FRANK HAHN, OF WEST CHICAGO, ILLINOIS.

EMERGENCY DRAFT-HOOK.

SPECIFICATION forming part of Letters Patent No. 720,198, dated February 10, 1903.

Application filed September 28, 1901. Serial No. 76,950. (No model.)

To all whom it may concern:

Be it known that I, CHRIS WAHL, a citizen of the United States, residing in the town of West Chicago, in the county of Dupage and State of Illinois, have invented certain new and useful Improvements in Emergency Draft-Hooks, whereof the following is a specification.

My invention relates to improvements in the draft devices used in emergencies to connect a locomotive or the end of a train with a "bad-order" car that has had its draft-rigging broken or torn out or to connect the adjacent ends of cars that are carrying long timbers or other load that prevents the coupling up of the regular draft-rigging.

The object of my invention is to provide an effective substitute for the draft-chains now used that shall be safer to apply, less liable to breakage in transit and in the jerk of taking up slack in the train, and more economical to manufacture.

My invention consists in a draft device for the purpose set forth adapted to be applied without shifting the relative positions of the adjacent car ends while the operative is engaged in making the connection and in taking up the slack, and the device is preferably some form of draft-rod adapted to be secured to one of the car ends, one or more hooks or like contrivances adapted to be passed over or around the transom of the adjacent car end, and some suitable coupling or connection between such draft-rod and transom hook or hooks.

My invention further consists in a draft-rod attachable to one of the car ends and connected by a yielding spring-coupling to a hook or pair of hooks or similar device that may be attached to the other car end by being hooked over or around the transom or the king-bolt or some part of the draft-rigging.

My invention further consists in providing the free end of said draft-rod with a loop carrying a link, hook, or transom-chain, or any or all of them, whereby the attachment to the end of the bad-order or other car may be facilitated.

My invention further consists in making the aforesaid yielding spring-coupling adjustable, and this is preferably accomplished by threading the draft-rod for the greater part of its straight length and screwing thereon an elongated draft-rod nut, as hereinafter more particularly set forth.

My invention further consists in providing as the preferable form of the aforesaid yielding coupling between the draft-rod and transom hook or hooks a powerful spiral spring surrounding the shaft of the draft-rod and confined between two draft-plates, the back draft-plate bearing against the aforesaid adjustable draft-rod nut and the front draft-plate or its equivalent bearing against the recurved base of the transom hook or hooks; and my invention further consists in enlarging and flattening the hook curve portion of each transom-hook, such reinforcement being preferably made by upsetting, bending back on itself, and welding down an end portion of the rod of which the transom-hook is formed, so that the draft-power of the hook shall be increased.

All of the foregoing features of my invention are hereinafter set forth in a particular and preferable form; but I do not limit my invention to such special form.

In the accompanying drawings, forming a part of this specification, Figure 1 is a general perspective view of the complete device. Fig. 2 shows the draft-rod proper. Fig. 3 shows in two views, side and front, the form of one of the transom-hooks. Figs. 4 and 5, respectively, show the back and front draft-plates, between which the spiral compression-spring is confined, as shown in Fig. 1.

Like reference-numbers indicate like parts in all the figures.

6 is the draft-rod, threaded for part of its length, as at 7, and provided at its free end with a loop 8, which may be passed through a link 9 or hook 10 or may be variously connected with a transom-chain 11, all of which appendant parts facilitate attaching the draft-rod to the transom, king-bolt, draft-rigging, or other part of the bad-order or other car end. The draft-rod is passed through the compression-spring 12, which is confined between the back draft-plate 13 and the front draft-plate 14. The draft-rod nut 15 screws on the threaded end of the draft-rod and bears against the back draft-plate 13, and by

the adjustment of the said nut the entire device may be lengthened or shortened, the draft-plates and the spring being free to slide back and forth on the draft-rod as the said nut is moved.

16 17 are respectively the right and left transom-hooks. Each has a recurved end 18, that passes through the holes 19 and 20 in the front and back draft-plates, respectively. The front draft-plate bears against the loops of the aforesaid recurved ends of the transom-hooks. By modifying the form of the transom-hooks this front draft-plate might be dispensed with and the spring allowed to bear directly against the transom-hooks. Each of the latter has its free end, intended, preferably, to be hooked over the transom of a car, enlarged and laterally flattened, as shown in Figs. 1 and 3, so as to increase the draft-power, such reinforcement being accomplished by upsetting, bending back upon itself, and welding down the end portion of the rod of which the hook is formed. By modifying the form used one transom-hook may be substituted for the pair shown in the drawings when it is desirable so to do. The draft-plates are preferably provided with additional lateral holes 21 22 to accommodate the transom-hooks in positions other than as here shown.

The operation of passing the transom hook or hooks over the transom or around the king-bolt of a car is obviously a much less dangerous matter for the operative than the attaching of the emergency draft-chains now in use for the service in which my device is employed. The draft-rod 6 may be attached to one car end and the transom hook or hooks 16 or 17, or both, passed over the transom of the adjacent car end and then the connecting members brought into place and the slack therein adjusted without shifting either car back and forth while the operative is engaged in applying and adjusting the device, and therefore without endangering the operative's life and limb. The additional safety gained by the use of the compression-spring to take up all jerks and strains is obvious, as is also the convenience of the adjustable connection provided for shortening and lengthening the device. The adjustable feature renders it possible to take up practically all the slack, while the best emergency draft-chains now in use leave a number of inches slack in even the closest connection that can generally be made with them.

The simple construction shown gives a device that is much more economically manufactured than the expensive tested draft-chains now employed.

The compression-spring and various other members may be omitted when the device is to be used under certain simple conditions.

Having thus set forth my invention, I now claim—

1. An adjustable emergency draft-hook composed of rigid members and adapted to be applied without shifting the relative positions of the adjacent car ends, substantially as specified.

2. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by a coupling to a transom-hook, substantially as specified.

3. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by a coupling to a pair of transom-hooks, substantially as specified.

4. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by a yielding spring-coupling to a transom-hook, substantially as specified.

5. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by a yielding spring-coupling to a pair of transom-hooks, substantially as specified.

6. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod provided at one end with a link, and at its other end directly connected by a coupling to a transom-hook, substantially as specified.

7. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by an adjustable coupling to a transom-hook, substantially as specified.

8. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod directly connected by an adjustable coupling to a pair of transom-hooks, substantially as specified.

9. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod, the draft-rod nut, a draft-plate, and a pair of transom-hooks, substantially as specified.

10. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod, the draft-rod nut, the back draft-plate, the compression-spring, and a pair of transom-hooks, substantially as specified.

11. An emergency draft-hook adapted to be applied without shifting the relative positions of the adjacent car ends, and having, in combination, the draft-rod, the draft-rod nut, the back draft-plate, the compression-spring, the front draft-plate, and a pair of transom-hooks, substantially as specified.

12. In an emergency draft-hook, in combi-

nation, the draft-rod, the draft-rod nut, the back draft-plate, the compression-spring, the front draft-plate, and the pair of transom-hooks, substantially as specified.

13. In an emergency draft-hook, in combination, the draft-rod having its one end looped through a link, hook, and transom-chain, and threaded from its other end, the draft-rod nut, the back draft-plate, the spiral spring, the front draft-plate, and the pair of transom-hooks engaged in the lateral holes of the said draft-plates, substantially as specified.

14. A transom-hook having an enlarged, laterally-flattened, reinforced hook curve portion to increase the draft-power thereof, substantially as specified.

CHRIS WAHL.

Witnesses:
HENRY LOVE CLARKE,
FRANK HAHN.