

(No Model.)

J. S. SCOTT.
CAR COUPLING.

No. 511,279.

Patented Dec. 19, 1893.

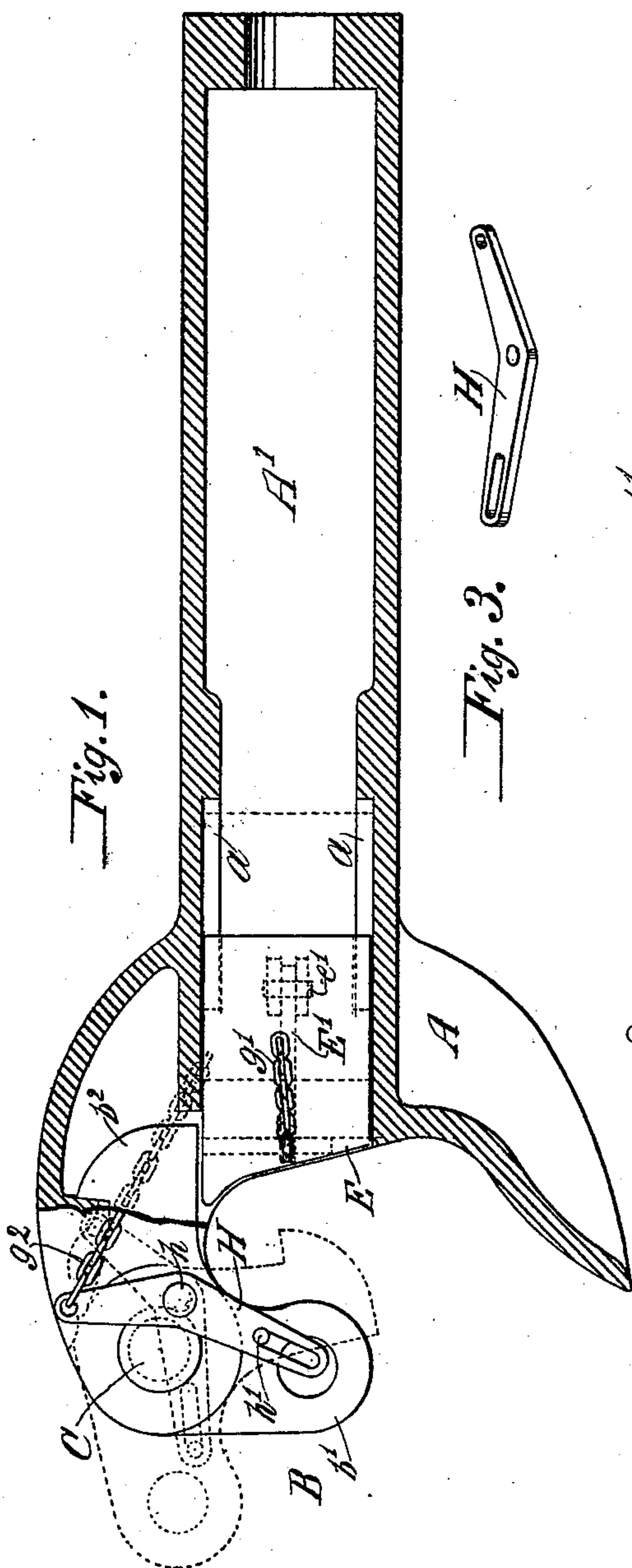


Fig. 1.



Fig. 3.

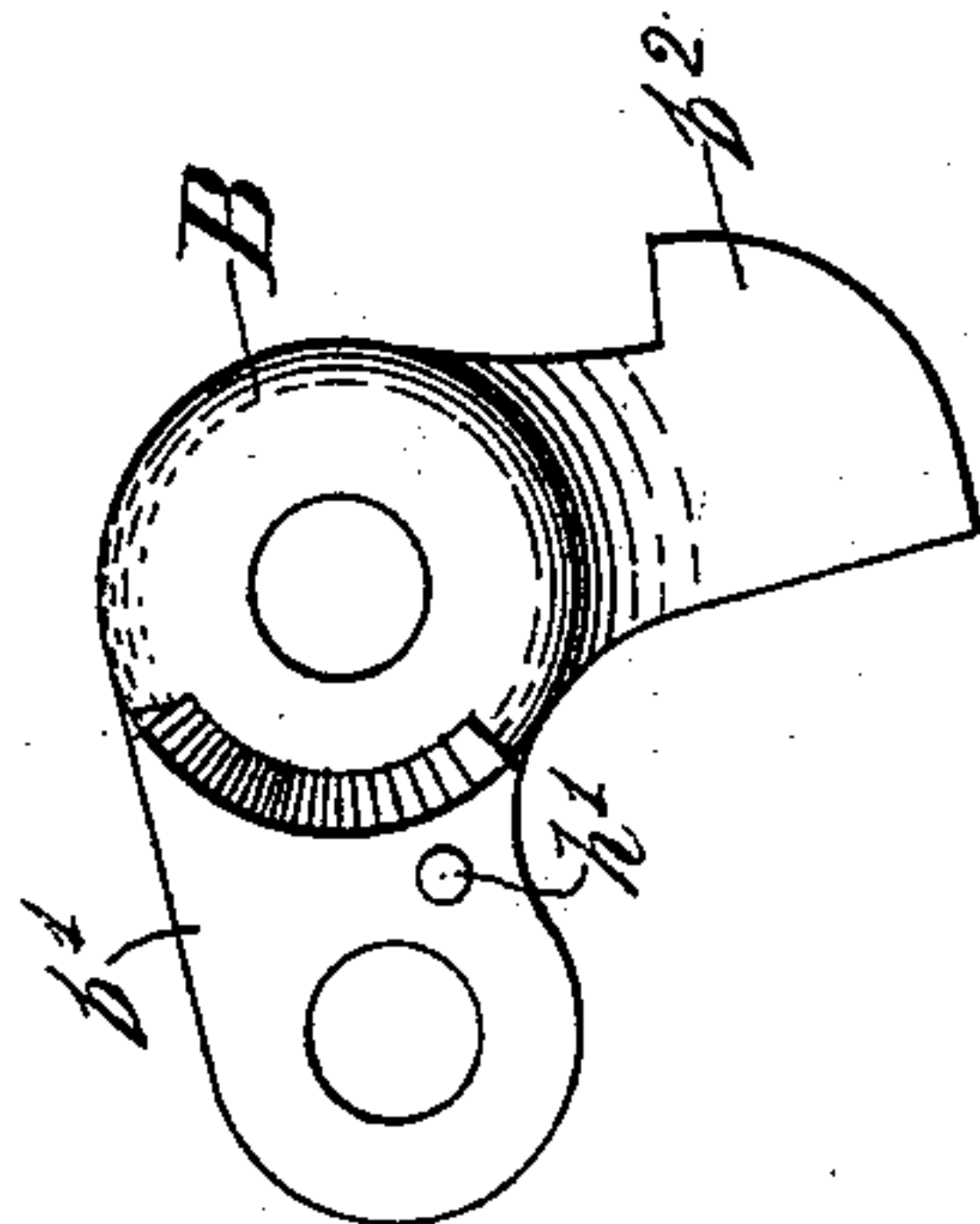


Fig. 4.

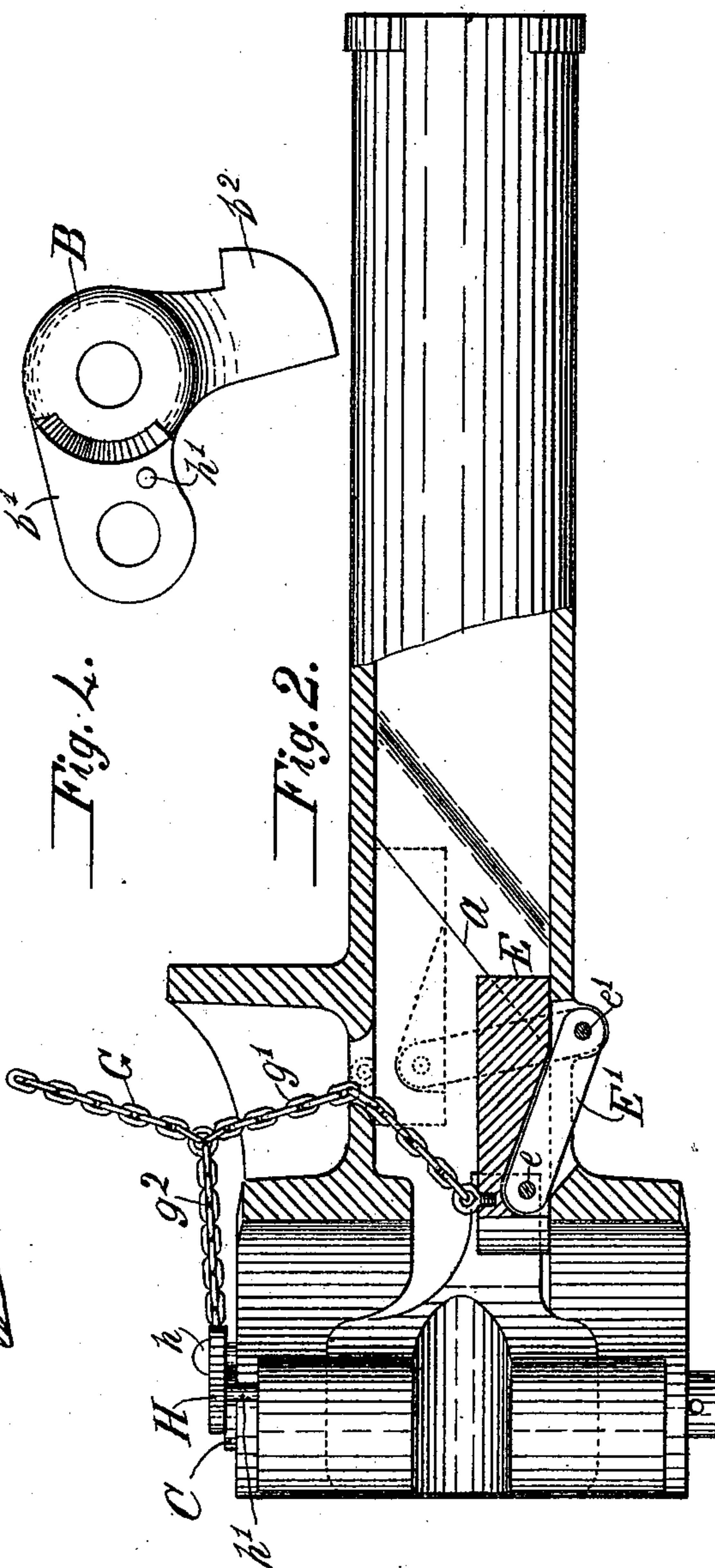


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES S. SCOTT, OF NEW YORK, N. Y.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 511,279, dated December 19, 1893.

Application filed September 19, 1893. Serial No. 486,921. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. SCOTT, of the city, county, and State of New York, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification.

I will describe a car coupler embodying my improvement, and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is a partly top view and partly a horizontal section of a car coupler embodying my improvement. Fig. 2 is a central, vertical, longitudinal section. Fig. 3 is a perspective view of one of the parts. Fig. 4 is a top view of the knuckle detached.

Similar letters of reference designate corresponding parts in all the figures.

A designates the coupler head and A' an ordinary shank extending therefrom.

B designates a knuckle, which may be of ordinary form, having two portions b' , b^2 extending at an angle to each other, and pivoted at the angle to one side of the coupler head, by means of a pin C. The outer portion b' may be bifurcated and perforated so as to be adapted to the coupling of cars by means of a link and pin. The portion b^2 is intended to engage with the locking device D so as to control the position of the main or outer portion b' of the knuckle.

E designates a lock, made in the form of a block of metal arranged in a recess extending rearward of the knuckle. Its rear end is shown as resting upon inclines a formed in the coupler head: these inclines having the function of guides for the rear end or heel of the block. The forward portion of the block is pivotally connected by a pin e to one end of a link E' which at the other end is pivotally connected by a pin e' to the bottom part of the coupler head. Normally the block E rests upon the bottom of the recess in the coupler head. When from any cause the portion b' of the knuckle is caused to press against the front end of the block E, its pressure will cause the front end of the block to swing upwardly upon the pin e' as a fulcrum and if the inclines a are used, the rear end or heel of the block will be guided upwardly at the same time, so that the block will always be main-

tained in a substantially horizontal position. After the portion b^2 of the shank shall have passed the block E, the latter will by its gravity descend to the bottom of the recess in the coupler head, and thus interpose itself between the portion b^2 of the knuckle and the opposite wall of the recess in the coupler head, thereby locking the knuckle in its innermost position.

It will be seen that by this construction I produce a very simple and withal a very effective lock for the knuckle.

G designates a device more or less flexible, whereby the block E may be raised and the knuckle oscillated to its outer or open position. As here shown, I employ a chain having two branches g' , g^2 . The former passes down through a hole in the top of the coupler head and connects with the lock block. The other branch extends to an appurtenance of the knuckle extending outwardly in the opposite direction from that in which the main or outer portion b^2 of the knuckle extends from the pivot or fulcrum pin C. A simple way of making the connection between this branch of the chain and the knuckle is to provide a plate H, which is pivoted by a headed pin or screw h to the top of the coupler head and engaged by a pin h' with an elongated hole in a portion of the knuckle, the elongation of the hole being necessary in view of the eccentricity of the pivot of the plate to the pin C. By pulling up the main portion of the chain G the lock block will first be lifted so as to free the knuckle and afterward the knuckle will be oscillated by the pull of the chain upon the plate H. To insure this action the branch of the chain extending to the knuckle or to the plate H may be slightly longer than the other.

I have filed another application for an improvement in car-couplings, the same having been designated Serial No. 484,506, setting forth a somewhat similar construction.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a coupler head provided with a recess and a pivoted angular knuckle, having a portion capable of swinging into and out of the said recess, of a lock block having its front end pivotally connect-

ed to one end of a link which at the other end is pivotally connected with the coupler head, substantially as specified.

2. The combination with a coupler head provided with a recess and a pivoted angular knuckle having a portion capable of swinging into and out of the said recess, of a lock block having its front end pivotally connected to one end of a link which at the other end is pivotally connected to the coupler head, and inclines for guiding the rear end or heel of the lock block, substantially as specified.

3. The combination with a coupler head provided with a recess and a knuckle pivotally connected thereto, of a locking device arranged within said recess, a flexible or partly flexible device having two branches, directly connected together and independently connected with the lock block and also to the knuckle on one side of its pivot, whereby the lock block may be disengaged from the knuc-

kle and the knuckle opened, substantially as specified.

4. The combination with a coupler head provided with a recess and a knuckle pivotally connected thereto, of a locking device arranged within said recess, a flexible or partly flexible device connected with the lock block, a plate pivoted to the coupler head on one side of the knuckle pivot and a connecting part between said plate and the knuckle, whereby the lock block may be disengaged from the knuckle and the knuckle opened, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES S. SCOTT.

Witnesses:

ANTHONY GREF,
S. A. PALMER.