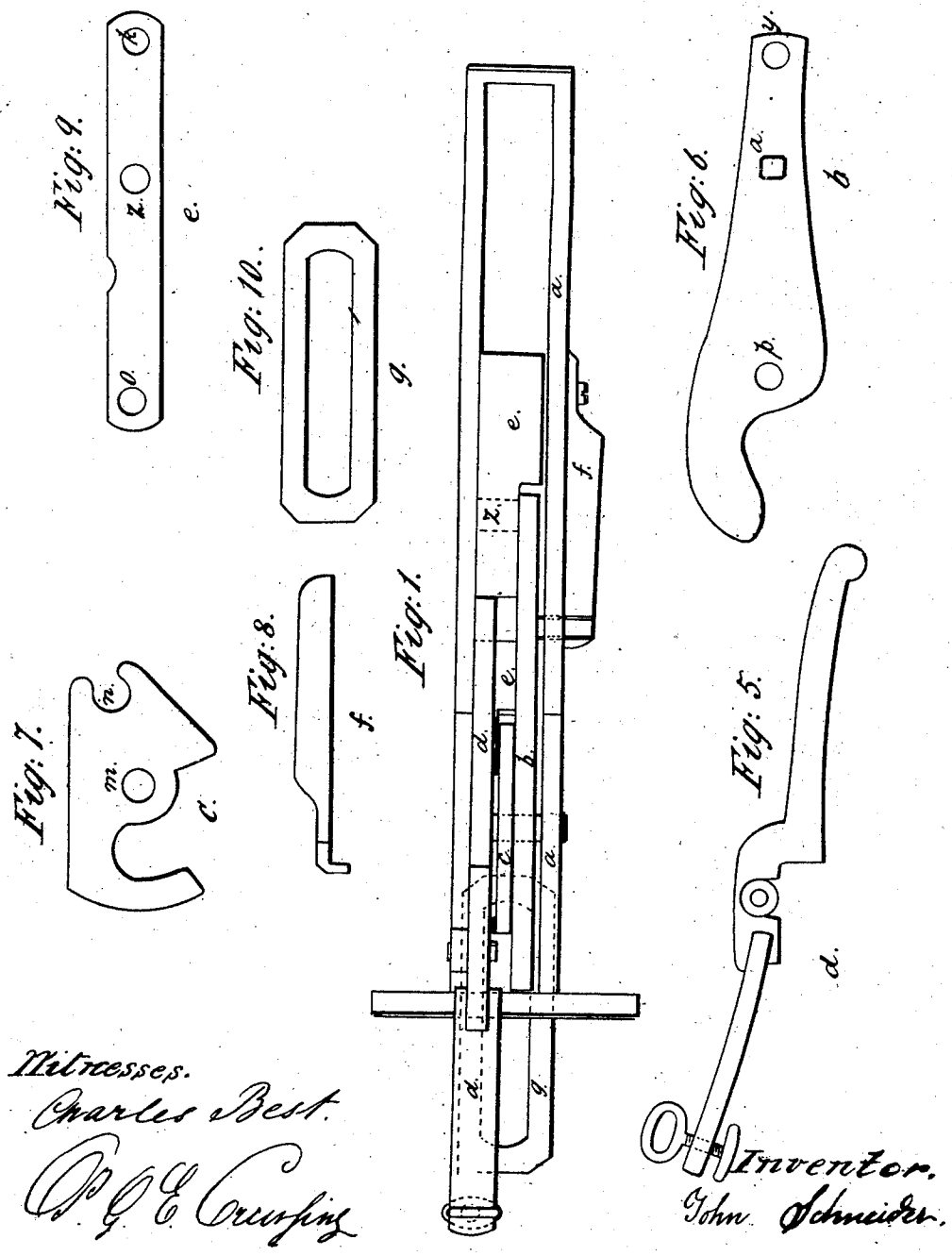
2 Sheets. Sheet 1.

J. Schneider,

Car Coupling.

No. 19,049. Patented Jan. 5, 1858.



Witnesses.
Charles Best.
P. G. E. Crusing

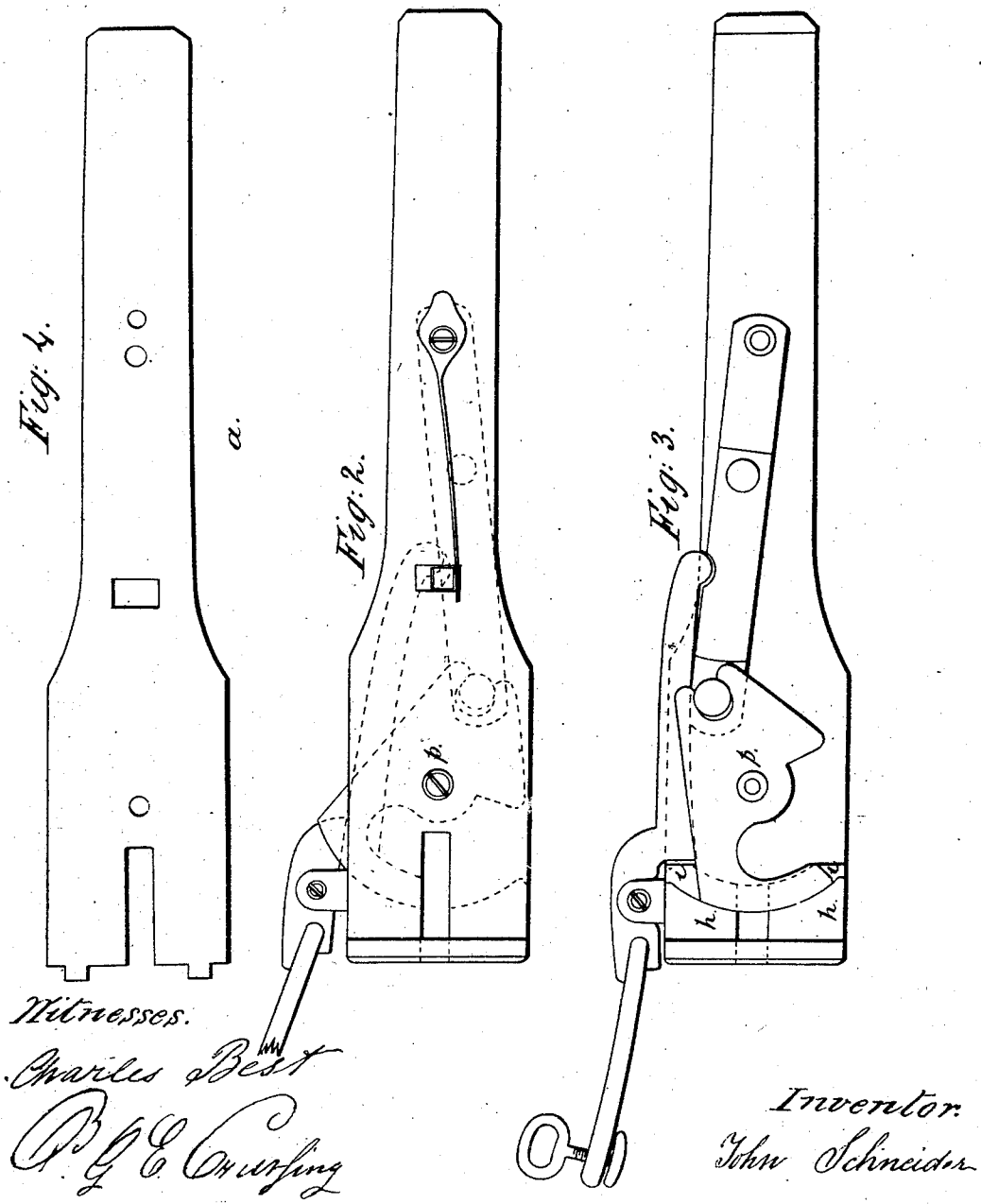
Inventor.
John Schneider.

2 Sheets. Sheet 2.

J. Schneider,

Car Coupling.

No. 19,049. Patented Jan. 5, 1858.



Witnesses.

Charles Best

P. G. E. Cushing

Inventor.

John Schneider

UNITED STATES PATENT OFFICE.

JOHN SCHNEIDER, OF CHICAGO, ILLINOIS.

RAILROAD-CAR COUPLING.

Specification of Letters Patent No. 19,049, dated January 5, 1858.

To all whom it may concern:

Be it known that I, JOHN SCHNEIDER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Car-Coupling Apparatus; and I do hereby declare that the following is a full, exact, and clear description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in the construction, arrangement and operation of railroad car coupling apparatus, whereby the coupling and uncoupling is performed automatically is such a manner that accidents deriving either from the exposure of the attendant in coupling or from the inability to uncouple when the locomotive or tender are running off the track, are effectually obviated, and to enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

Figure 1 is a top and Fig. 2 a side view of the complete apparatus as attached to the cars.

It consists of a quadrangular body open on the top and bottom and closed in front by a funnel shaped head piece calculated to give the coupling ring easy access to and guide it into the aperture to act against the tumbler *b*, (Fig. 6.)

The tumbler a detail of which is shown in Fig. 6 is a plate of such a curvilinear shape that its front forms a cam, protruding and advancing below the level of the funnel shaped aperture of the headpiece, so that when the coupling ring is forced in and through said aperture, it will act against the cam and raise it by causing it to rotate upon the pin *p* which passes through an orifice, as center. This tumbler is furnished with 2 studs projecting from the sides, the first *x* passes through a slot made in the side plate of the box where a spring *g* acts against it for the purpose of keeping the cam in front of the aperture. This is done by exerting a gentle upward pressure against the tail of the tumbler. The second *y* is on the opposite side of the plate and is designed to enter a hole *z* in the lever *c*. The latter is secured in the box by means of a pin passing through an orifice *k* in the rear. This lever is then liable of a swinging motion, *k* being the center of rotation. Its construction and shape is of a peculiar character. It is made in 3 different thicknesses, the front part being about one third of the whole width of the box, is armed with a stud which operates the bolt in the manner as hereinafter described. The central part has a thickness equal to two thirds of the width of the box and has an orifice into which the pin *y* of the tumbler *b* in inserted;—the 3d and rear portion of the lever occupies the whole width of the box from side to side and is held in the box as above set forth. This lever actuates the operation of the bolt C, which consists of a hook in the form of a circle, of which the pivot *m* is the center. This hook moves in a circular guide, the path of which crosses the orifice of the headpiece. In the hind part of the bolt a circular notch is wrought out into which the stud *o* of the lever *c* is set.

The description of the apparatus is completed by that of the trigger *a*. This trigger consists of a lever jointed to the box at or near its center, one end bearing against and in a groove of the lever *c* while its other end has a set screw which is adjusted to rest on the headpiece of the coupling bar which is attached to the opposite car.

The operation of the apparatus will now be readily understood. When 2 cars are to be coupled by means of the above described contrivance, the coupling ring is first secured onto one of them. The gradual approach of the cars will force the link into the aperture of the funnel shaped headpiece, which guides the link into the orifice where it is to be locked. There it will act against the tumbler and by raising the cam, cause it to rotate upon the pivot *p*. The rear or tail of the tumbler being then depressed, will carry along in its downward motion the lever *c* to which it is secured by means of the pin *z*. This lever on the other hand will actuate the bolt to rise as the stud *o* engages in the notch *n* of the bolt C, which thus clears the passage of the link into the recess. As soon as the link passes the cam, the action exerted by this cam ceases and the bolt drops in its former position whereby it locks the link in a permanent manner.

When one of the cars connected by this apparatus runs off the track, it is evident, that there must be a change of level of this car in relation to the other on the road. This change of level will cause a pressure upon the set screw of the trigger, which will then operate in a similar manner upon the lever as a similar action will be produced,

i. e. the bolt will be lifted, whereby the coupling ring is unlocked, and the connection from this car to the others discontinued.

Having now fully described my improvement, what I claim and desire to secure by Letters Patent is—

The circular rotating hook bolt in combination with the tumbler and trigger when so constructed and arranged as to operate substantially in the manner herein set forth, that is to say, when both the coupling and uncoupling is effected automatically by lifting the bolt for the passage of the link, either by the direct action of the link against the tumbler or by the downward pressure upon the trigger in and by the act of one of the cars running off the track respectively for the purposes specified.

JOHN SCHNEIDER.

Attest:

CHS. G. E. DUSSINE,
CHARLES BEST.