B. BIRD.

Coupling Device for Lines, &c.

No. 218,363. Patented Aug. 12, 1879.

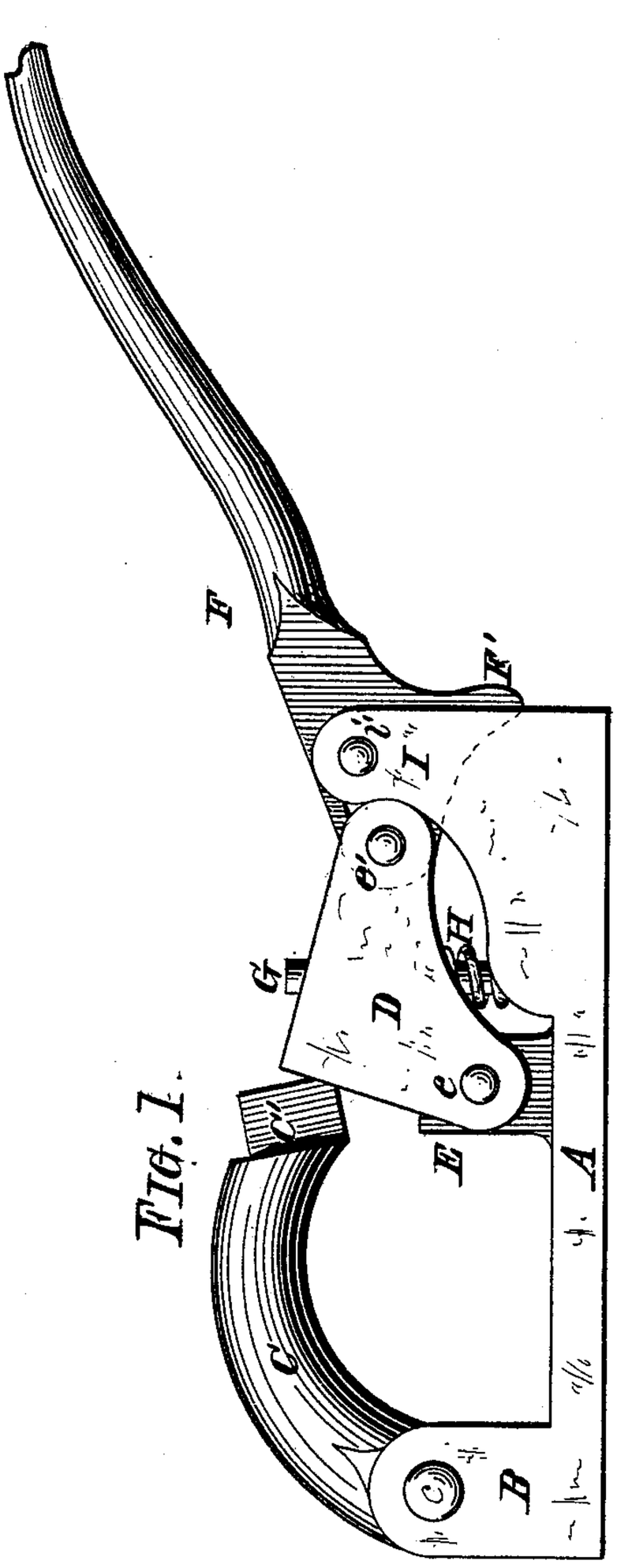

FIG. 1.

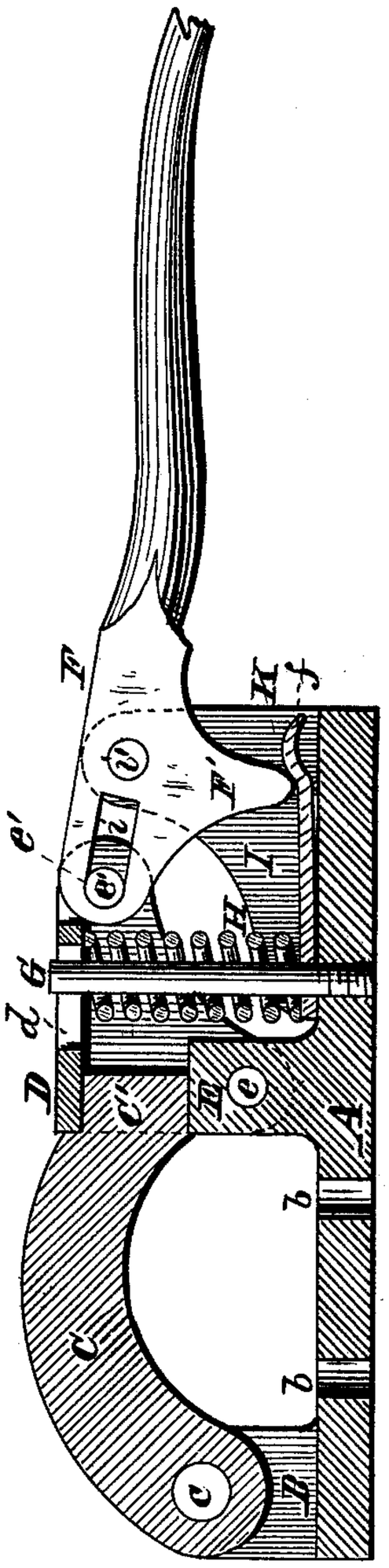

FIG. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

BERNARD BIRD, OF BUFFALO, NEW YORK.

IMPROVEMENT IN COUPLING DEVICES FOR LINES, &c.

Specification forming part of Letters Patent No. **218,363,** dated August 12, 1879; application filed January 28, 1879.

To all whom it may concern:

Be it known that I, BERNARD BIRD, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Coupling Devices for Lines, &c.; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has special reference to a whiffletree-snap; and it consists in the peculiar arrangements of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

The object of my said invention is the production of a whiffletree-snap that shall be comparatively cheap, and at the same time more durable, less liable to get out of order, and when used in connection with the hauling of canal, &c., boats, shall discharge the tow-line positively and without fail when disconnection of the tow-line with the draft horses or mules, &c., is desired.

To this end I construct my whiffletree-snap as illustrated in the drawings already mentioned, in which Figure 1 is an elevation, and Fig. 2 a sectional elevation, of my said snap, and in which figures the letter A indicates a metallic base-plate having on one end two uprights, B, placed a sufficient distance apart to admit a shackle, C, between them, said shackle being pivoted within the uprights by the pin or bolt *c*.

The shackle C is curved, and has on its front or free end a nose, C′, which, when the snap is closed, rests upon an anvil, E, and is retained in that position by an inverted-U-shaped holder, D, pivoted to said anvil by means of a pin or bolt, *e*. On the rear end of the base-plate A are likewise two uprights, I, carrying between them a lever, F, pivoted between the uprights I by the pin or bolt *i′*, and having its short arm provided with a slot-hole, *i*, wherewith engages a pin, *e′*, on the holder D. Centrally and at right angles to the longitudinal axis of the lever F there is a projection, F′, extending downwardly to engage with a spring, K, secured to the base-plate A, and having a curved end, *f*. Between the anvil E and the rear supports, I, there is a spindle, G, surrounded by a spiral spring, H, interposed between the base A and the holder D, and tending to force the latter upward.

The base-plate A has a suitable number of apertures, *b*, by means of which and screw-bolts or rivets the entire device is securely fastened to the usual whiffletrees.

When in its normal or closed position the shackle C rests upon the anvil E, and is securely held thereto by means of the holder D, said holder in turn being held in position by the spring K acting upon the lever E in such manner as to prevent the holder from turning around its supporting-pivot.

To release the shackle instantaneously, the lever F is pulled upward from the base-plate A. This causes the holder to be thrown back far enough to clear the nose C′ on the shackle, when the latter will instantly open and thereby release the tow-line, &c.

In canaling, it is very essential that the tow-line can be dropped instantly to save the horses, &c., from drowning; and this is perfectly accomplished by my improved snap.

The entire device may be readily cast in malleable iron, and, requiring but little manual labor for assembling and fitting the parts, it can be manufactured and sold at a very low figure.

It is perfectly evident that my device is also applicable for holding the traces or the whiffletrees in carriages and wagons, and, with some slight additions, may be used as a detaching device for horses attached to vehicles in cases of runaways, &c.

Having thus fully described my invention, I claim—

1. The combination, with the base-plate A, having the two supports B and I, of the shackle C, resting upon the anvil E, holder D, pivoted to the said anvil E by the pin *e*, lever F, pivoted to the supports I, and engaging the holder D by its slot-hole *i* and pin *e′*, and the spring K, as and for the object stated.

2. The combination, with the base-plate A, having the two supports B and I, of the shackle C resting upon the anvil E, holder D, pivoted

to said anvil E, lever F, having its short arm provided with a slot-hole, *i*, engaging the pivot *e'* on said holder, and being provided with the projection F', and the spring K, having the curved end *f*, engaging said projection, substantially as and for the object specified.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

BERNARD BIRD. [L. S.]

Attest:

MICHAEL J. STARK,
FRANK HIRSCH.