

H. TURNER.
Car-Coupling.

No. 219,041.

Patented Aug. 26, 1879.

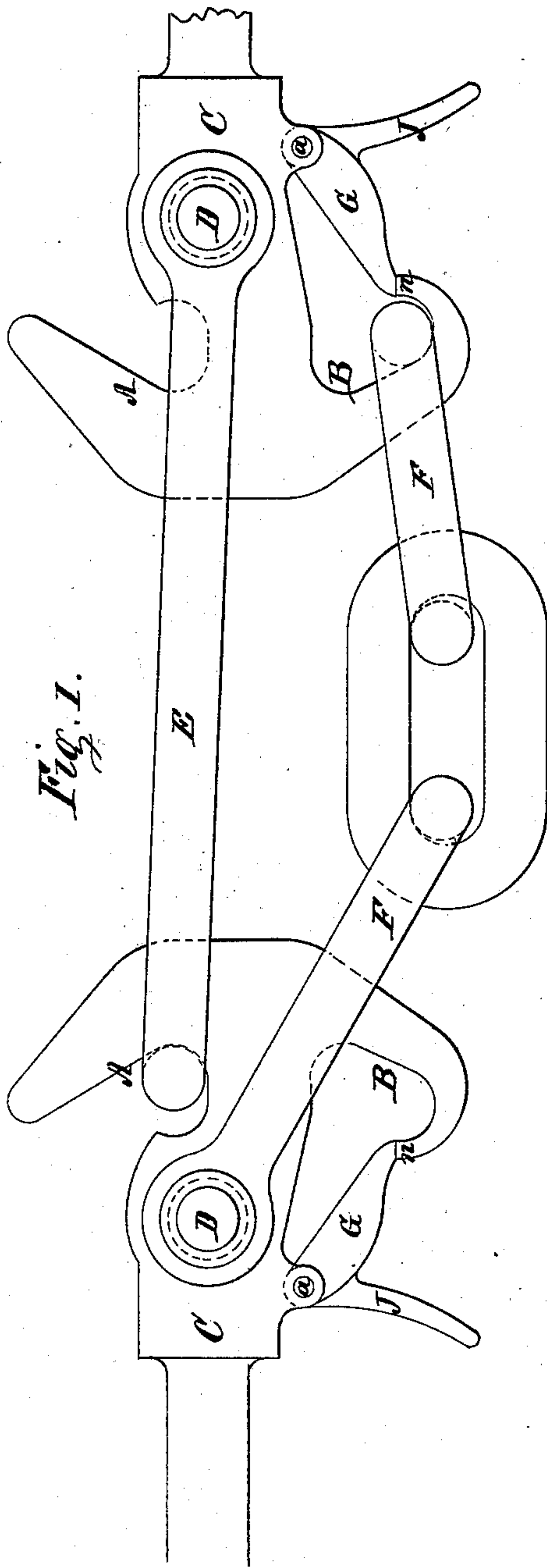


Fig. 1.

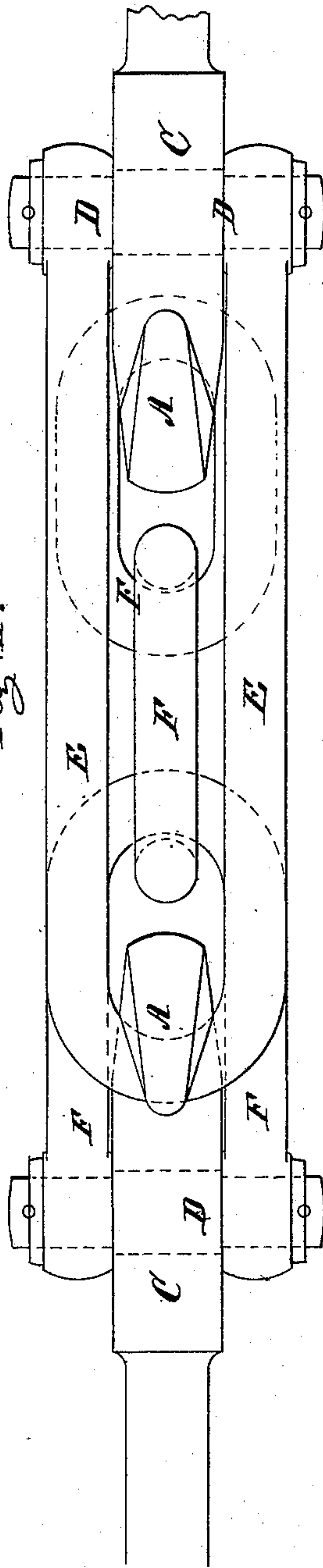


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

HIRAM TURNER, OF POTSDAM, PRUSSIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **219,041**, dated August 26, 1879; application filed August 30, 1878.

To all whom it may concern:

Be it known that I, HIRAM TURNER, of Great Britain, at present residing in Potsdam, in the Kingdom of Prussia, have invented a new and useful Double Hook for Railway Carriages and Engines, of which the following is a specification.

It is commonly acknowledged by all railway engineers that the present so-called "safety-chains," fixed at each side of the main coupling to railway carriages and engines, in consequence of their impractical position, are not to be relied upon, so that almost in every case where a rupture of the main coupling occurs a division of the train takes place.

All experiments that have been tried to give a greater stability to these present chains have, in consequence of their unfavorable position to the main coupling, proved to be failures.

The nature of my invention consists in the construction of a double hook, into the upper one of which the main coupling chain or link can be hooked, while an additional chain or screw-coupling attached to an eyebolt of an adjoining draw-bolt (and which, in this case, takes the place of the safety-chains usually attached at each side of the draw-bolt or main coupling) can be attached to the second or lower hook, and is prevented from coming out of this hook by a self-acting lever closing the opening of said lower hook.

In the accompanying drawings, Figure I represents a side view of my improved hook, showing its connection with a similar hook on an adjoining carriage. Fig. II is a top view of the same.

Similar letters represent similar parts.

The double hook A and B is forged in one piece with the usual draw-bar C. It has been proved by several official trials regarding its relative and absolute strength that no breakage takes place under thirty-eight and a half

to forty-one and a half tons tension, whereas the strongest present main single carriage-hooks in existence break with a tension of thirty-four and a half tons.

To an eyebolt, D, fast in the draw-bar C, the coupling-link E is attached, while in an adjoining draw-bar the safety-chain F is attached to said bolt D. On the under side of the draw-bar a clasp or lever, G, is hinged, moving freely on its center-pin *a*, and resting at its forward end upon the end *n* of the lower hook, B. This lever G closes by means of its own weight, closing thereby the lower hook, B, and secures thereby effectually the safety-coupling or safety-chain F in the recess of said hook.

A projection or handle, J, is attached to said lever G, for the purpose of operating the same when the hook-opening requires to be opened for inserting or withdrawing the safety chain or coupling F.

To connect two carriages it is only necessary, after connecting the coupling-link E of the one carriage in the main hook A of the other, to open, by means of the handle J, the lower coupling-hook, B, and lift the safety-chain F into the lower hook, B, when the lever G closes, by means of its main weight, this lower hook-opening, and thereby secures effectually the safety-coupling in its proper seat.

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

The draw-bar C, with double hooks A and B, made in one piece, in combination with the self-acting lever G, closing the lower hook-opening, B, and the eyebolt D, for the attachment of suitable links or chains, substantially in the manner and for the purpose described.

HIRAM TURNER.

Witnesses:

JOHANNES BRANDT,
BERTHOLD ROE.