

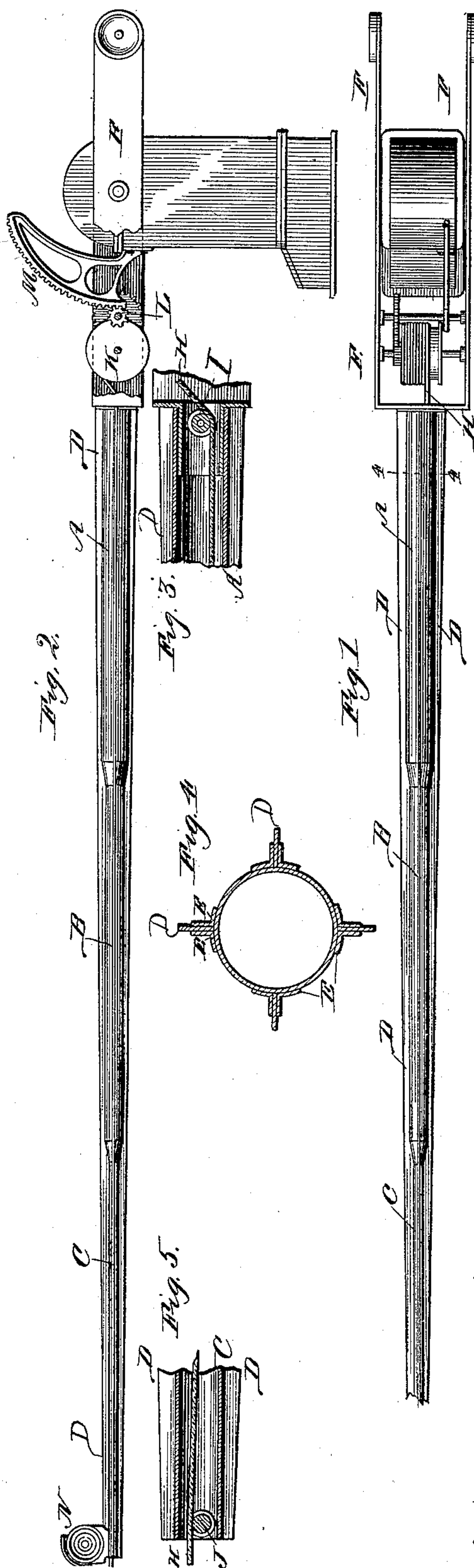
(No Model.)

A. J. McDONALD.

RAILWAY GATE.

No. 401,754.

Patented Apr. 23, 1889.



Witnesses  
W. J. Foster,  
Wm. Bates,

Inventor,  
Alexander McDonald  
By C. C. Luthman  
Atty.

# UNITED STATES PATENT OFFICE.

ALEXANDER J. McDONALD, OF CHICAGO, ILLINOIS.

## RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 401,754, dated April 23, 1889.

Application filed May 14, 1888. Serial No. 273,781. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER J. McDONALD, of Chicago, Illinois, have invented certain new and useful Improvements in Railway-Gates, of which the following is a specification.

My invention relates to an improved construction of the swinging arms or bars of railway-gates, whereby they are made strong and durable and yet not so heavy as to be unwieldy; and my invention consists in the improved constructions whereby these desirable ends are attained, as hereinafter particularly described and claimed.

In carrying out my invention I employ in the gate-arm hollow iron tubes and strengthening devices to give to these tubes requisite rigidity. In the accompanying drawings I have illustrated my invention, and have shown in connection therewith an improved railway-gate lamp and a tie for such gates. Said lamp and tie, however, do not constitute a part of my present invention.

The drawings illustrate the preferred form of my invention, in which I employ a single tubular rod composed of tubular sections secured to each other end to end, Figure 1 being a top or plan view; Fig. 2, a side elevation; Fig. 3, a longitudinal vertical section of the base of the arm; Fig. 4, a transverse section on line 4 4 of Fig. 1, and Fig. 5 a longitudinal vertical section of the outer end of the gate-bar.

The gate-arm shown in the drawings has a tubular body composed of one or more sec-

tions of pipe—say of galvanized iron or other strong light metal. As shown, there are three sections, A B C, the first being, say, eight inches in diameter, the second six, and the third four inches. The first may be drawn down to the size of the second at their point of junction, and the second drawn down to the size of the third where they unite. The joints may be made by soldering, bolt-flanges and bolts, or in other suitable way. To strengthen these sections so as to produce an arm which shall have sufficient rigidity to carry its own weight, which is all that is essential, I employ strengthening-ribs D, as many as desired, which are secured radially about the arm between angle-irons E E by soldering or otherwise. The section A may be secured to the bend of a U-shaped bar-iron, F, the arms of which embrace the post G and are pivotally secured thereon.

It will be seen that I provide a gate-arm made entirely of metal, and hence capable of long use, possessing great strength, and yet not so heavy as to be unwieldy.

I claim—

A railway-gate arm consisting of a tubular metallic body provided with one or more longitudinal strengthening-ribs projected radially from the body, and angle-irons whose flanges are secured, respectively, to the body and the rib, substantially as described.

ALEXANDER J. McDONALD.

Witnesses:

C. C. LINTHICUM,  
T. D. BUTLER.