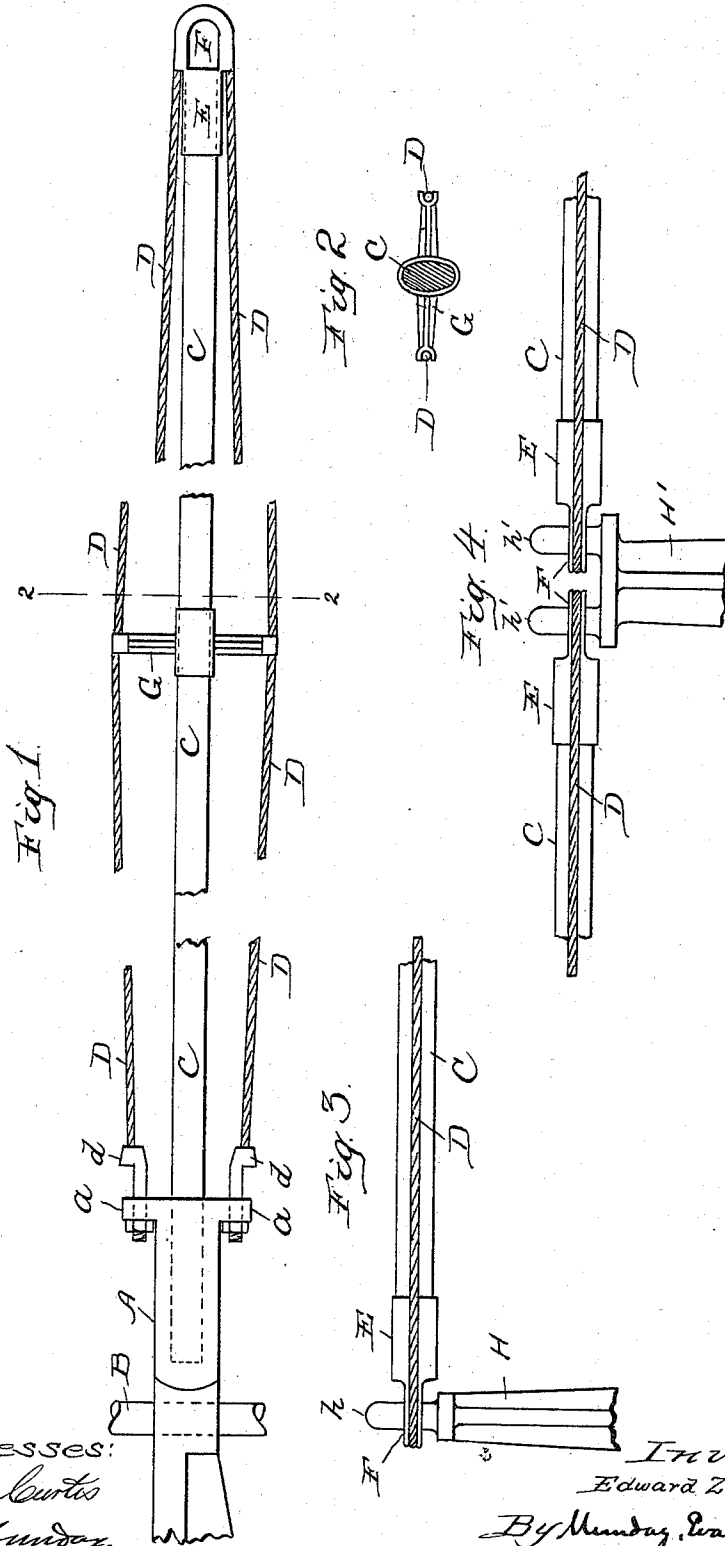


(No Model.)

E. ZAREMBA.
SAFETY GATE.

No. 537,883.

Patented Apr. 23, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD ZAREMBA, OF CHICAGO, ILLINOIS.

SAFETY-GATE.

SPECIFICATION forming part of Letters Patent No. 537,883, dated April 23, 1895.

Application filed January 11, 1894. Serial No. 496,504. (No model.)

To all whom it may concern:

Be it known that I, EDWARD ZAREMBA, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Safety-Gates, of which the following is a specification.

This invention relates to the construction of railway and other safety gates.

The object of the invention is to improve the construction of the gates, and also to so construct them as to insure their being kept in proper position when in use.

The main feature of the invention relates to the construction of the mast which is composed of a rigid extension member, preferably of wood provided at its outer end with a thimble having a flanged eye, and a tensile member or cable passing around the eye and with its ends secured at the base of the extension member. Intermediate of the ends of the mast are one or more spreaders over which the tension member passes and by which it is held taut. The extension member is made wide in a direction at right angles to the plane of the tension member, so that the mast is rendered very rigid and stiff, is very strong in the direction in which the strain caused by the gravity of the mast is exerted, and possesses sufficient flexibility to prevent breakage when struck from the side. All this together with other features of the invention are fully explained in the description which I give below and shown in the accompanying drawings, in which—

Figure 1 is a plan view of a mast or gate embodying my invention. Fig. 2 is a section thereof on the line 2—2 of Fig. 1. Fig. 3 shows a single mast and the post with which it engages when lowered. Fig. 4 shows two masts and the post with which they engage when lowered, this construction being applicable to a double roadway.

In the drawings A represents a casting or head swinging on a pivotal support B which is supposed to be supported on a suitable post or standard, not shown.

C is the rigid extension member, preferably of wood, one end of which is let into the casting A, as indicated in Fig. 1. This extension member is preferably made oval or oblong in cross section, as shown in Fig. 2.

E is a metal thimble secured upon the outer end of the timber C, and this thimble is provided with an eye F, the outer surface of which is recessed or flanged, so as to form a groove in which the tension cable D may lie. This tension cable or member should possess great tensile strength and is passed around the eye with its ends secured in projections *a* at either side of the head A. It is desirable that the cable ends be provided with eye bolts *d* adapted to pass through the openings in the projections and to be held therein by nuts. Such fastenings permit drawing the cable taut and its being tightened whenever necessary.

Intermediate of the ends of the mast I place one or more spreaders G which preferably consist of a sleeve fitting the exterior of the extension member and arms projecting at either side of such sleeve and provided at their outer ends with suitable recessed bearings to receive the cable. The arms of these spreaders extend from the sleeve in a direction at right angles to the longer diameter of the timber, as seen at Fig. 2. The mast thus constructed is very strong and well adapted to resist not only the shock and strains which it receives when raised and lowered, but also to resist the wind and blows which it may receive from the side. It is also flexible so that it may give or bend to a considerable extent without breaking.

At Fig. 3 H represents a post placed at the opposite side of the roadway from the post upon which the gate swings and provided with a horn *h* at its top. This post is so located as that when the gate is lowered the eye F will fit down over the horn, as plainly indicated.

The gate is now adapted to form an absolute barrier to teams attempting to cross the tracks or bridge, and it is strongest in the direction in which it must resist such attempts.

It will also be noticed that if while the gate is lowered the extension or rigid member of it should become broken, the gate will still form a barrier to travel because the cable or tension member will remain in position across the roadway. This feature of the gate renders it necessary of course that some such construction as that shown which will secure the extremity of the gate to the post be

employed or some equivalent construction which will retain a hold upon the outer end of the gate after the breaking of the extension member.

5 At Fig. 4 I show a post H' having two horns h' adapted to receive one end of a gate at either side. This post is supposed to be placed at the center of a double roadway or between two adjacent and parallel roadways.

10 The gate is operated in the usual manner, being raised and lowered upon or by the pivotal support B which may be actuated by any appropriate motive power, the eye of the mast dropping over the horn of the post at
15 the opposite side of the roadway when the mast is lowered and thus providing a barrier extending from the gate at one side of the roadway to the post on the other side. In the case of the double roadway the barrier
20 consists of the two masts and the center post having the two horns.

When the two gates are made to engage the same post as in Fig. 4, it will be noticed that a continuous barrier is formed, consisting of
25 the two gates and the center post. With this construction the gates are rendered mutually helpful in sustaining blows or strains which may come upon them separately.

30 It will be understood that the eye may be put upon the post and the horn upon the

mast, without departing from the spirit of my invention.

I claim—

1. The combination with a safety gate having a tension member and an eye upon its
35 swinging end, of a post located at the opposite side of the roadway and having a horn adapted to receive the eye of the gate, substantially as specified.

2. The combination of two separate safety
40 gates located at opposite sides of the roadway and each having tension members, with a single post located centrally between the gates, each of the gates being provided with an eye and the post being provided with two
45 horns adapted to receive said eyes, substantially as specified.

3. The combination of a safety gate located at one side of the roadway and having a tension cable or member and an extension mem-
50 ber, with a post located at the other side of the roadway, the gate and post being provided with interlocking devices whereby the swinging end of the gate will be held in case of breakage of the extension member, sub-
55 stantially as specified.

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Witnesses:

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