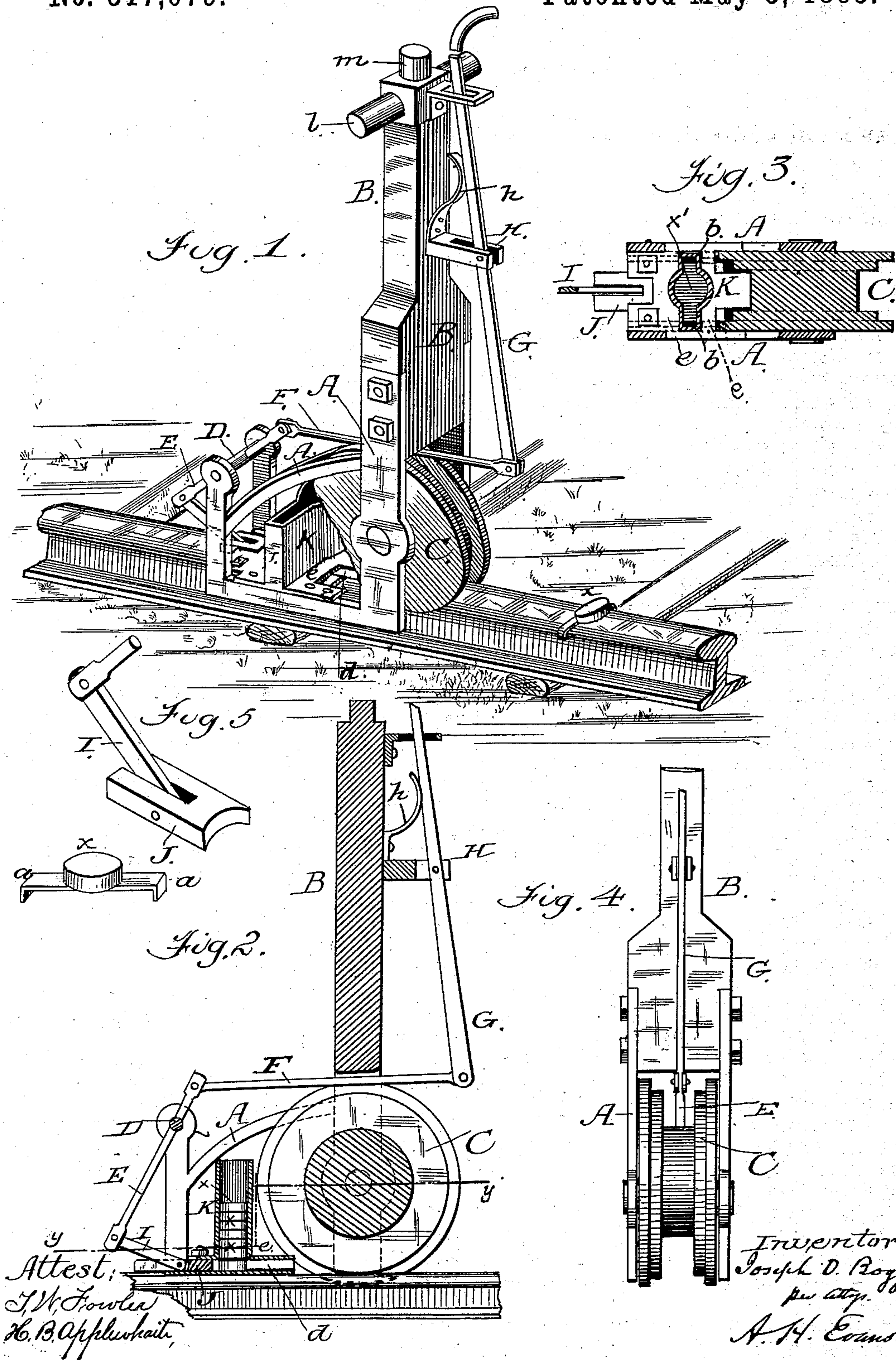


(No Model.)

J. O. BOGGS.
TORPEDO PLACER.

No. 317,079.

Patented May 5, 1885.



UNITED STATES PATENT OFFICE.

JOSEPH OSCAR BOGGS, OF HARRISBURG, PENNSYLVANIA.

TORPEDO-PLACER.

SPECIFICATION forming part of Letters Patent No. 317,079, dated May 5, 1885.

Application filed April 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH O. BOGGS, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Improvement in Torpedo-Placers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a railway-torpedo placer with my improvements attached, a portion of the wheel being broken away. Fig. 2 is a vertical section through the same. Fig. 3 is a section on line *y y* of Fig. 2, showing magazine and wheel. Fig. 4 is a rear view. Fig. 5 shows details of the slotted plunger J and torpedo, to be referred to.

My present invention relates to means for placing torpedoes on railways from moving trains; and it consists in the combination of devices hereinafter explained and claimed.

It is found difficult at present to put down torpedoes so as to answer the rules of the several railway companies. These rules require the torpedoes to be placed far enough apart for their explosions to be easily counted by the officers in charge of the train. When the torpedoes are placed too near together, a rapidly-passing train causes practically but a single explosion. For instance, in torpedo-placers where the torpedoes are carried in the periphery of the wheel they must all be put down within a distance not greater than the circumference of the wheel, regardless of what the number may be, and, the wheel being small and permanently attached, the operator cannot vary his signals, for the torpedoes are so close together that a rapidly-approaching train causes practically but a single explosion. To overcome these serious difficulties, and to enable the operator to distribute his torpedoes at pleasure and put them down so as to communicate with a following train, is the object of my present invention.

In order to enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents a metallic frame secured to a post, B, in which frame is

journaled the flanged wheel C. In the forward part of the frame A is journaled the rocker-shaft D, to which is attached the lever-bar E. The upper or short arm of this lever-bar is pivoted to the rod F, which connects it with the lever-bar G, having its fulcrum in the bifurcated arm H on the post B, as shown in Fig. 1. The lower or longer arm of the lever-bar E is pivoted to a pitman, I, the opposite end of which is pivoted to a slotted plunger, J, as shown in Figs. 2 and 5.

From this description of the construction of my device it is evident that by moving the upper end of the lever-bar G from or toward the post B the plunger J is caused to move back or forth at the pleasure of the operator, while the spring *h* on the post B prevents too sudden a movement of the lever-bar which might cause the plunger to be thrown out of position in the raceway *d*.

On a platform, *e*, on the forward portion of the frame A, and just in front of the wheel C, I secure the magazine K, for holding any desired number of torpedoes, *x*. This magazine is properly shaped to receive snugly the torpedoes, the torpedoes proper, *x*, fitting in the central circular portion, *x'*, of the magazine, and the tin or lead fastening-straps attached to each torpedo lying in the elongated chambers on either side, as shown in Fig. 3. The outer ends of these fastening-straps may be bent at right angles at *a*, so as to drop into the guide-slots *b* on each side of bottom of the magazine, and thus safely guide the torpedo from the magazine to its position on the rail, when the flanged wheel C, passing over the fastening-straps, crimps them over the rail and secures the torpedoes in the desired position. The wheel C is provided with an inner and outer flange, as shown in Fig. 4, the outer flange extending slightly below the upper surface of the head of the rail, as shown in Fig. 1. The result of this construction is that while the inner flange holds the torpedo in place on the face of the rail the outer flange forces the bent ends *a* of the strap below and beneath the head of the rail.

The plunger J is caused to move back and forth at the pleasure of the operator, as before stated. In its passage it moves through raceway *d*, leading immediately beneath the mag-

azine K, and which is of sufficient size to receive a torpedo dropping down through the open-bottom magazine. As long as the plunger J is beneath the magazine, being of the same thickness with a torpedo, the torpedoes are all held up in the magazine and rest on the plunger; but it is evident that if the lever-bar G be pressed toward the post B the plunger J will be withdrawn forward from under the magazine, and a torpedo will drop into the space previously occupied by the plunger. Then, if the movement of the lever-bar G be reversed, the plunger will be forced through the raceway *b*, carrying with it the lower torpedo back onto the rail, where it will be instantly secured by flanged wheel C, as before described.

My improved placer is to be attached to the caboose or rear car of a train, and supported by any well-known means, as lugs *l*, and held by a suitable brace so as to throw the top *m* of the post B rearward, and thus elevate the front of the frame A sufficiently to prevent its being injured by coming in contact with bad joints in the rail. The same result may be ob-

tained by raising or making the lower part of the frame carrying the magazine slightly out of square, which will allow the post to stand perpendicular, if so desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a torpedo-placer, the frame A, carrying the flanged wheel C and magazine K, in combination with the pivoted and slotted plunger J, and suitable mechanism for operating the same, consisting of the lever G, rod F, bar E, and pitman I, substantially as and for the purpose set forth.

2. The frame A and post B, in combination with the flanged wheel C, magazine K, and plunger J, moving in a raceway, *d*, and suitable mechanism for operating the same, consisting of the pitman I, bar E, secured to rock-shaft D, a rod, F, and lever G, substantially as and for the purpose set forth.

JOSEPH OSCAR BOGGS.

Witnesses:

ED. M. COOPER,

S. W. FLEMING.