

(No Model.)

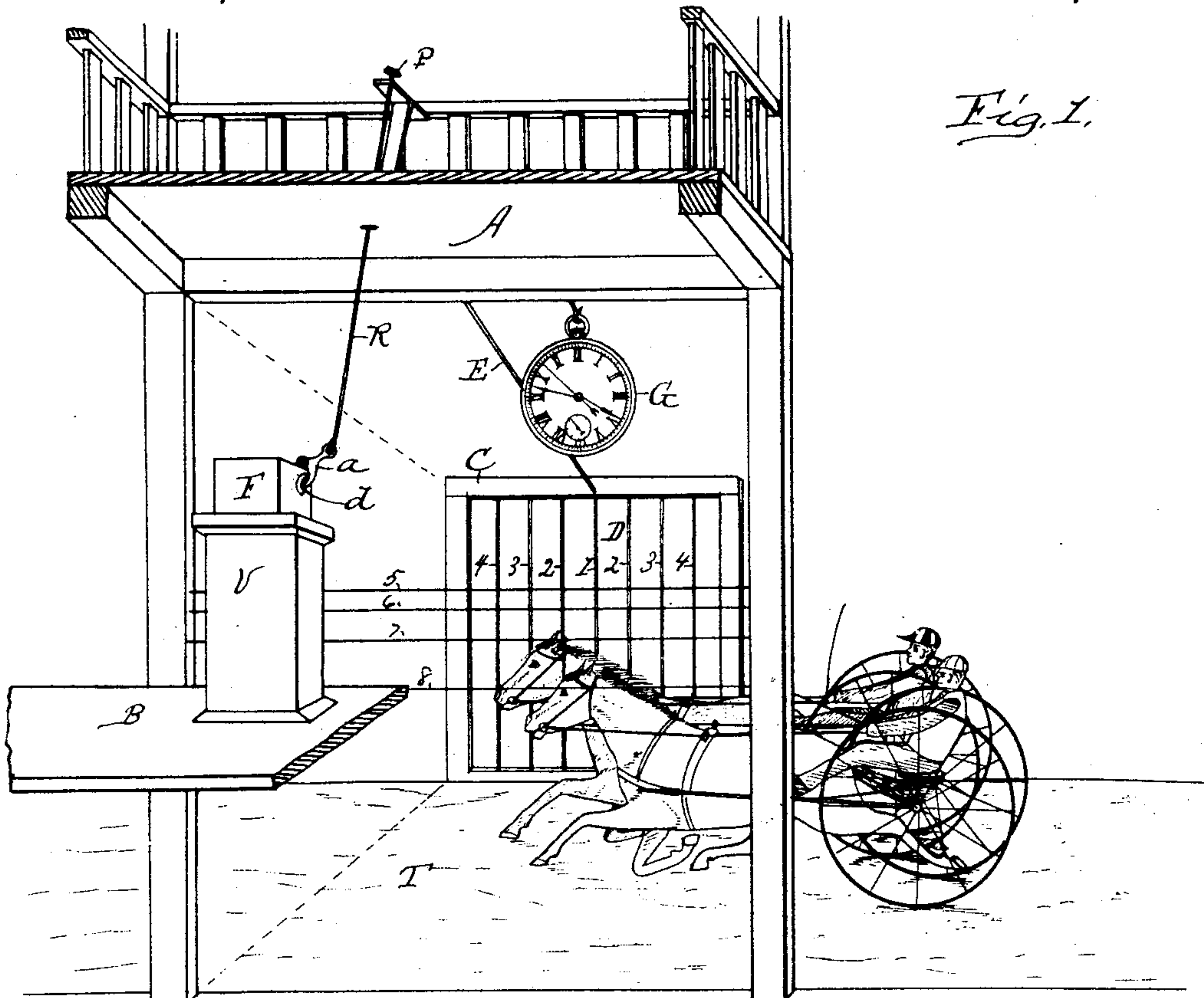
3 Sheets—Sheet 1.

W. C. PETRI.

APPARATUS FOR PHOTOGRAPHICALLY RECORDING TIME, POSITION,  
AND SPEED.

No. 516,278.

Patented Mar. 13, 1894.



Witnesses  
W. C. Hutchins,  
J. H. Poore,

Inventor  
William C. Petri,  
By W. J. Hutchins  
att.

(No Model.)

3 Sheets—Sheet 2.

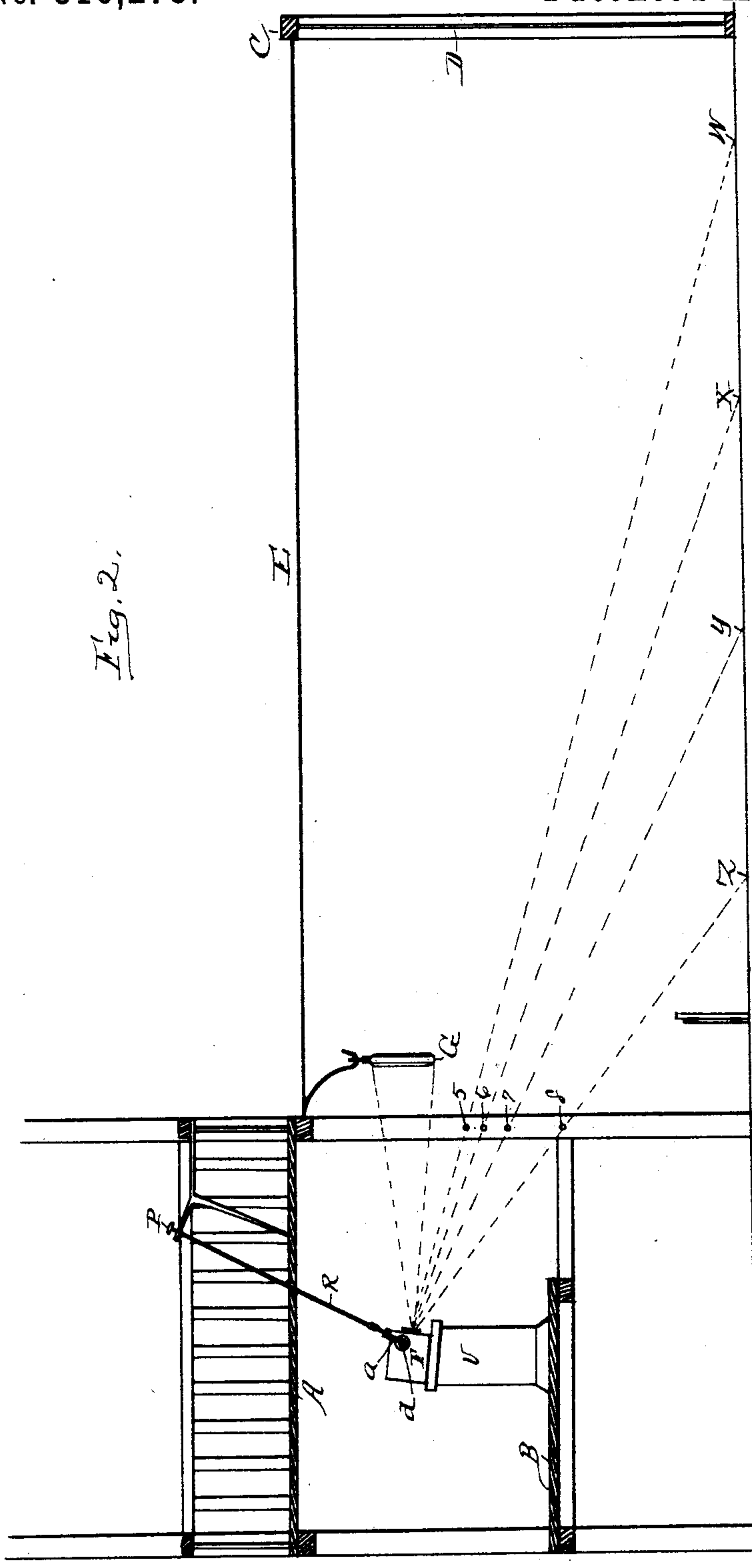
W. C. PETRI.

APPARATUS FOR PHOTOGRAPHICALLY RECORDING TIME, POSITION,  
AND SPEED.

No. 516,278.

Patented Mar. 13, 1894.

Fig. 2.



Witnesses,  
W. C. Hutchins  
J. H. Prou.

Inventor,  
William C. Petri,  
By <sup>Wm</sup> J. Hutchins, atty

(No Model.)

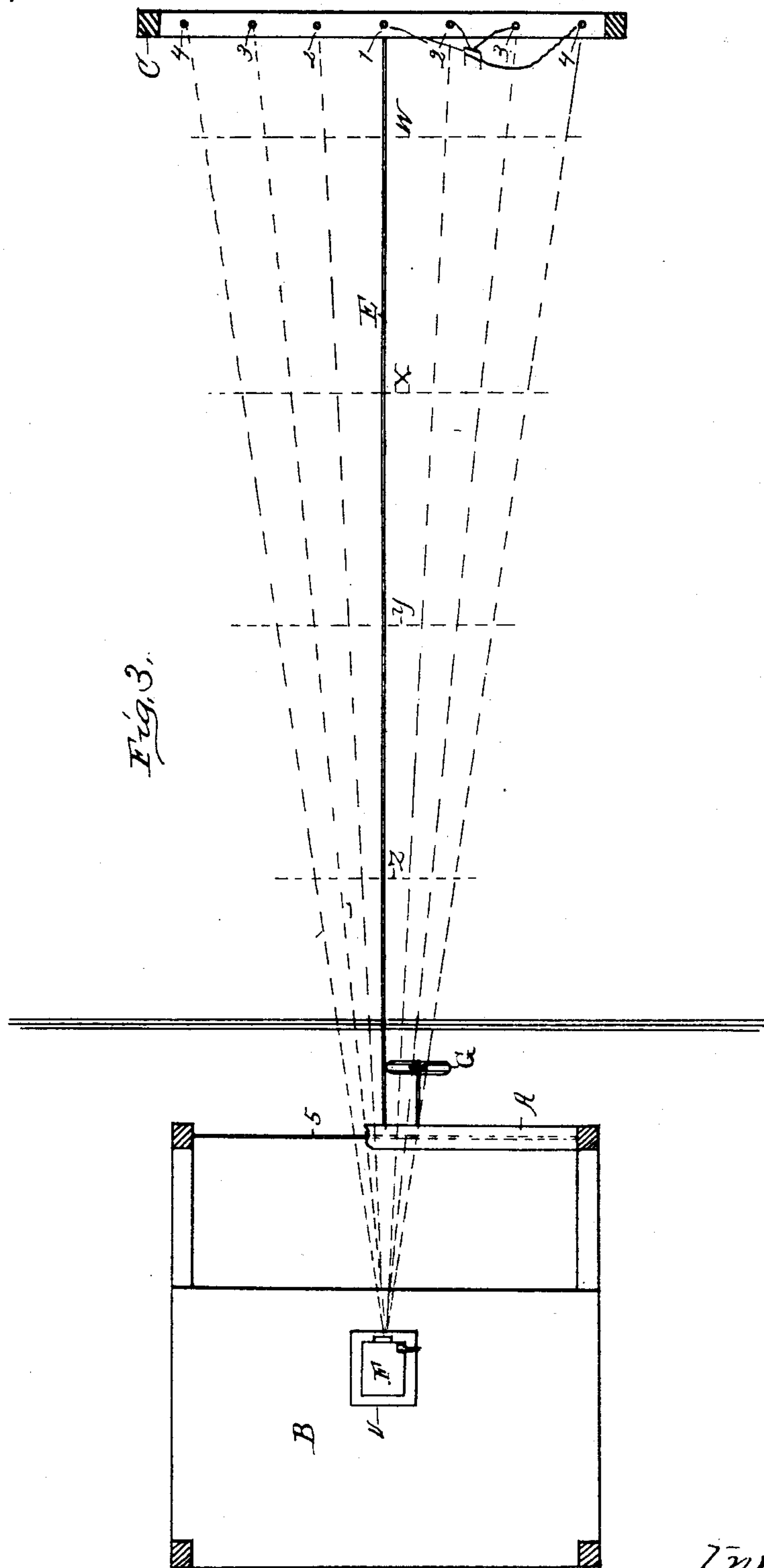
**3 Sheets—Sheet 3.**

W. C. PETRI.

APPARATUS FOR PHOTOGRAPHICALLY RECORDING TIME, POSITION,  
AND SPEED.

No. 516,278.

Patented Mar. 13, 1894.



Witnesses,  
W. C. Hutchins,  
J. H. Pong.

Inventor,  
William C. Petri.  
By *Wm J. Hutchins*,  
att.



# UNITED STATES PATENT OFFICE.

WILLIAM C. PETRI, OF WICHITA, KANSAS.

APPARATUS FOR PHOTOGRAPHICALLY RECORDING TIME, POSITION, AND SPEED.

SPECIFICATION forming part of Letters Patent No. 516,278, dated March 13, 1894.

Application filed March 14, 1893. Serial No. 465,958. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. PETRI, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Apparatus for Recording Time, Position, and Speed, of which the following is a specification, reference being had therein to the accompanying drawings and the letters and figures of reference thereon, forming a part of this specification, in which—

Figure 1. is a perspective view of the apparatus, looking from the rear thereof toward a speeding track; Fig. 2. a side elevation of the apparatus, showing portions of the frame thereof in section, and Fig. 3. is a top view of the same, also showing portions of the frame thereof in section.

This invention relates to certain improvements in an apparatus for photographically securing a positive record of the time, speed, and position of speeding horses, or other participants in a race, or races, and in certain novel construction and arrangement of parts of an apparatus for securing such record, which are fully set forth and explained in the following specification and pointed out in the claims.

The object of this invention is, in the production of an apparatus whereby, by means of photography, instantaneous photographic views may be taken at the commencement and at the conclusion of a race, wherein the position of the participants, and the exact time of starting and concluding the race will be positively shown in the views, and by means of such recorded time the speed of the participants in the race is determined.

The essential features in this invention consist in the arrangement of an instantaneous photographic instrument, of a speeding time piece, and of indicators for photographically recording the time, position, and speed of the participants of a race.

Referring to the drawings A represents a judges' stand, such as is commonly constructed adjacent a speeding track.

B represents a platform placed below the floor of stand A.

C represents an upright frame erected at the side of the speeding track, opposite to

stand A, and supports a series of vertical indicator wires, or rods, or cords, D, and jointly with stand A supports the usual elevated cross-wire, or indicator E. The vertical indicators D are further represented by the figures 1, 2, 3, and 4; that numbered 1 being vertically in line with the cross-indicator E, and located each side therefrom, at equidistant points are the indicators numbered 2, 3, and 4, consecutively. I have further placed a series of horizontal wires, or indicators 5, 6, 7, and 8 between the posts of the stand A facing the speeding track T.

F represents a photographic instrument, preferably a kodak, and is shown as mounted on a stand V of the platform B with its lens turned toward the track T and indicators D.

G represents a speeding time piece, having an enlarged dial, and is suspended from the stand A, preferably at a point above the margin of the track T, and hence not very far distant from the kodak, and in such position, as to come within the radius of the kodak lens, and, also, as to be above the usual height of a horse.

As a means of actuating the kodak from the judges' stand A, at the place where the judges of a race usually stand, I have provided the kodak F with a lens *a* fulcrumed at a point above the push-button *d* of the instrument, and so shaped that one end rests against said push button and the opposite end overreaches the instrument side and has connected therewith a push rod R which extends up through a hole in the floor of the stand A and to and through a hole of a guide arm A', and terminates at its upper end in a push knob P. By means of such device a pressure down on rod R will cause the push-button *d* of the kodak to operate and thereby open and close the shutter of the kodak, and by so doing secure the view presented within the radius of the instrument lens.

Other construction of photographic instrument may be utilized in this apparatus, than the kodak represented, and the means employed, for actuating the instrument, may vary with the class used, and not in any wise change the nature of this invention. Also other construction of frame, for supporting the parts of this apparatus, may be used without departing from the spirit of this inven-



tion. And the position of the time piece may be altered to show at any place in the view taken, so long as it does not prevent the participants in the race from showing in the view taken.

5 In this apparatus, with reference to the indicators 1, 2, 3, and 4, of the series of indicators D, the distance the participants in a race are in advance, or in the rear, of the cross-indicator E will be photographed, in the view, 10 or views, taken as indicated by the radial dotted lines in Fig. 3. Also by means of the horizontal indicators 5, 6, 7, and 8, the lateral position, of the participants in a race, will be 15 photographed in the view viz: if the footing line of a horse on track T is radially in line with wire 5, regarding the photographic lens as the center, as indicated by dotted lines in Fig. 2, it indicates that the horse is on the 20 track a certain given distance from the right hand side of the track; if in line with wire 6, it indicates that the horse is a certain given distance near the track center, and likewise wires 7 and 8 indicate other positions of the 25 horse, which several indicated positions are represented in the drawings by  $w$ ,  $x$ ,  $y$ , and  $z$ . By comparing said indicated positions with the radial lines in Fig. 3, the exact distance in advance or in rear of indicator E may be 30 determined in feet and inches by calculation,

as should a horse be on the track in position laterally as indicated at  $y$  and another horse at a point as indicated by  $x$  and the view taken should show the nose of each horse in line with one given indicator, of the series D, 35 it may readily be determined what the exact distance of one horse in advance of the other, is by taking the difference from said radial line to indicator E, at point  $y$ , from that at point  $x$ . 40

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

1. In combination, the photographic instrument, the cross-indicating line; the vertical 45 indicators, the horizontal indicators, and the speeding time piece, substantially as and for the purpose specified.

2. The apparatus, consisting of a photographic instrument located a distance to one 50 side of a speeding track, of indicators placed at the opposite side of the track, and of a time piece located within the radius of the lens of the photographic instrument, substantially as and for the purpose set forth.

WILLIAM C. PETRI.

Witnesses:

WM. J. HUTCHINS,

F. H. POORE.