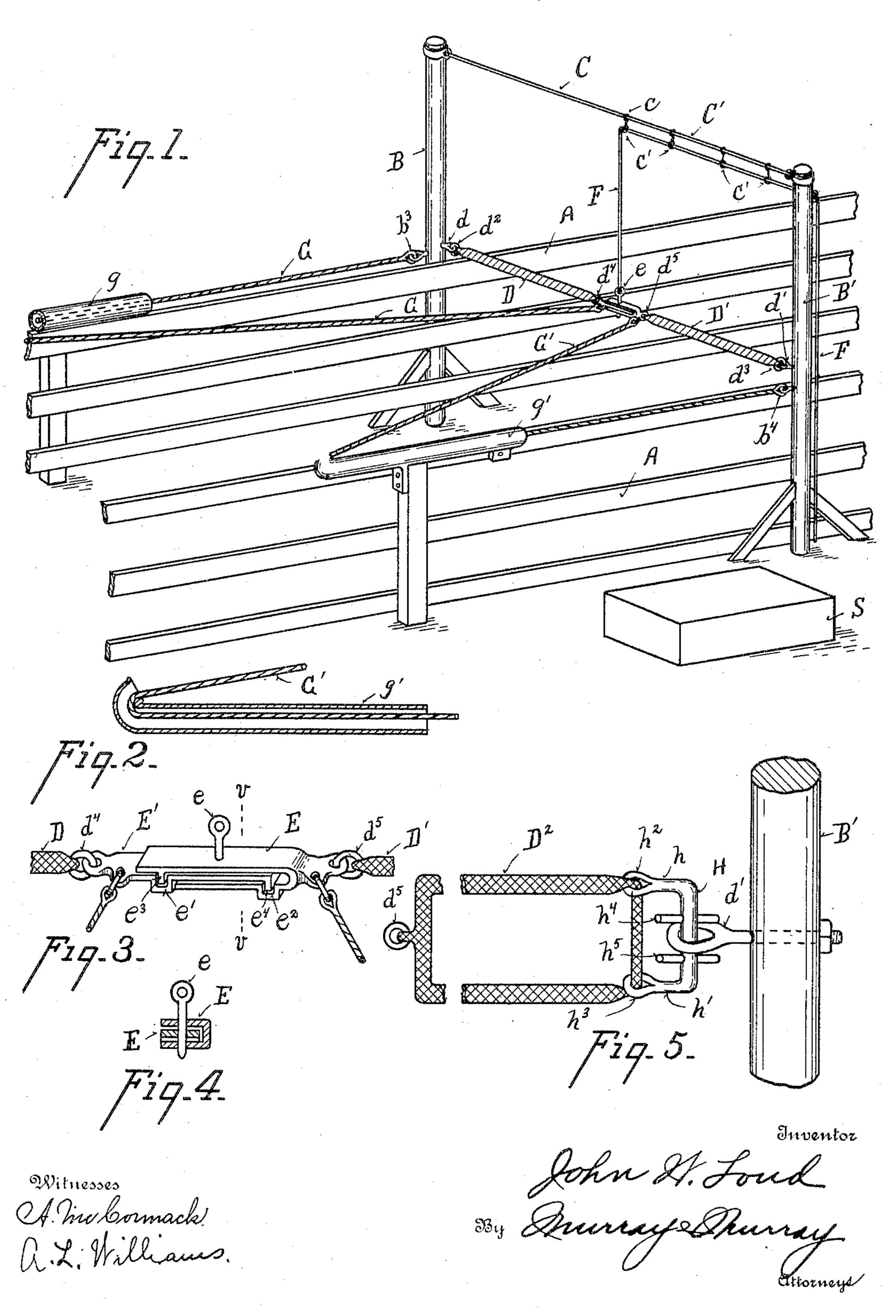
J. W. LOUD.
STARTING GATE FOR RACE COURSES.
APPLICATION FILED JUNE 10, 1904.



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## UNITED STATES PATENT OFFICE.

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## STARTING-GATE FOR RACE-COURSES.

SPECIFICATION forming part of Letters Patent No. 789,285, dated May 9, 1905.

Application filed June 10, 1904. Serial No. 211,886.

To all whom it may concern:

Be it known that I, John W. Loud, a citizen of the United States of America, and a resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Starting-Gates for Race-Courses, of which the following is a specification.

The object of my invention is a starting10 gate for race-courses, which may be opened
quickly, effectively, and in a manner such as
neither to startle the horses nor to entangle
the horses or riders. This object is attained
by the means described in the specification
15 and illustrated in the drawings, in which—

Figure 1 is a perspective view of a part of a race-track, the starting-gate embodying my invention being shown in position barring the track. Fig. 2 is a sectional view of a part of one of the elastic members with its tubular guide shown in section. Fig. 3 is a detail perspective view, upon an enlarged scale, of the clasp for engaging the barriers. Fig. 4 is a sectional view taken on line v v of Fig. 3. Fig. 5 is a detail view, upon an enlarged scale, of a modified form of barrier.

Referring to the parts, at the sides of the track, upon the outside of the fence A, are vertical standards B B, which are both braced 3° firmly in place. At the uppermost ends of the standards is a horizontal supporting member, which consists of two ropes or cables CC', which engage each other at the center c. From the member C' a number of rings c' are 35 hung. Rings d d' project horizontally, one from each of the standards BB', to a point just within the fence A. These rings d d' are engaged by rings  $d^2 d^3$ , which are secured to the outer ends of straps D D', which consti-4° tute the barrier. These straps D D' carry at their inner ends rings  $d^4 d^5$ . Ring  $d^5$  engages the housing E and ring  $d^4$  engages a bolt E', adapted to enter the housing E and to be held

therein by a removable pin e, which projects down through holes in the housing and the bolt E', as shown in Fig. 4. The pin e is engaged by a cable F, which passes thence up through rings e' and down to a point adjacent to the starter's stand S, so that the starter by

pulling on the cable F may separate the bar- 50 rier. The barrier when separated is immediately drawn to the side by elastic cables GG'. One end of cable G engages bolt E', and one end of cable G' engages housing E, both cables diverging thence to the opposite 55 fences, where the cable G passes through a tubular guide g and thence to a ring  $b^3$ , secured to the standard B, and cable G' passes through a tubular guide g', secured to the fences, the cable passing thence to a ring  $b^4$ , secured to 60 the standard B'. As soon as the barrier is separated by the starter's pulling the pin e, which releases housing E and bolt E', the elastic cables G G' draw the barriers D D' alongside of each fence, leaving the track open.

In order that the pin e be not too securely held in place by reason of the tension upon the housing E and the bolt E', I have provided the following construction: The housing consists of a box closed upon all sides extended one—the one through which the bolt E' enters—and in the bottom of the housing I have formed grooves e'  $e^2$ . The bolt E' has two downwardly-projecting flanges  $e^3$   $e^4$ , which fit into the grooves e'  $e^2$  when the bolt is placed 75 in the housing E. The engagement of the flanges and the grooves are only tight enough to prevent too much friction upon the pin e and to become readily disengaged as soon as the pin e is withdrawn.

In Fig. 5 I have shown a construction of barrier which is calculated to overcome any tendency in the barrier to twist. Passing through each of rings d d' are vertical rods H, which are turned up at their ends h h' and 85 terminate in rings  $h^2$   $h^3$ , through which the double barrier D<sup>2</sup> is passed, the opposite ends of the barrier being secured to the ring  $d^5$  and the construction of the clasp being the same as aforedescribed. Studs  $h^4$   $h^5$  steady rod H. 90

In operation when it is desired to bar the track the straps D D' are drawn together at its center by stretching the elastic members G G', and the housing E is entered by the bolt E', the two being held together by inserting 95 the pin e. The barrier D D' is then in place and stands, preferably, at about the height of the horses' breasts. It is seen then that the

track is effectively barred. When the starter has gotten the horses in a satisfactory position, he pulls the cable F, thereby withdrawing pin e from the housing and bolt  $\to E'$ , 5 which then separates, and the elastic cables G G' draw the barriers to the sides, opening it, as it were, like a door opening before a person. This is done quickly, and as the barriers move in a direction away from the 10 horses they are not startled thereby as they are by barriers which go up vertically in front of them. Moreover, the barrier being drawn away from the horses and in the direction in which they are going there is no danger of 15 the barriers entangling the riders, thereby obviating the danger which is inherent in that class of barriers which rise vertically above the horses' and the riders' heads.

I have shown my invention in the best form known to me; but it is obvious that many mere mechanical changes might be made in the same—as, for instance, I would regard it as an inferior modification of the same to make the straps D D' elastic instead of using separate elastic members GG' or to place the elastic members alongside of the straps D D' in place of putting them in the angular position I have shown.

What I do claim is—

1. A starting-gate consisting of a barrier made of two straps; means for securing the

outer ends in place at the side of the track, a clasp consisting of two parts one member of which is carried at the inner end of each strap; means for holding the clasps temporarily together, two elastic members secured at their outer ends at the sides of the track at a distance from the outer ends of the straps and secured at their inner ends to the inner ends of the straps, and means for unlocking the 40 members of the clasp, substantially as shown and described.

2. A starting-gate consisting of two standards, one secured at each side of the track, a supporting member carried at the upper ends of the standards, a strap secured to each standard, a housing carried at the inner end of one strap, a bolt secured at the inner end of the other strap to enter the housing, a pin to engage the bolt and the housing, a cable secured to the pin and supported by the support, guides secured at the sides of the track at a distance from the standards and elastic members secured at the sides of the track passing through the guides and engaging the 55 housing and the bolt respectively, substantially as shown and described.

JOHN W. LOUD.

Witnesses:

W. F. Murray, A. McCormack.