F. O. BUTLER & S. C. ROCKMAN.

SUSPENSION RAILWAY CROSSING.

APPLICATION FILED MAY 17, 1909.

945,749.

Patented Jan. 11, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

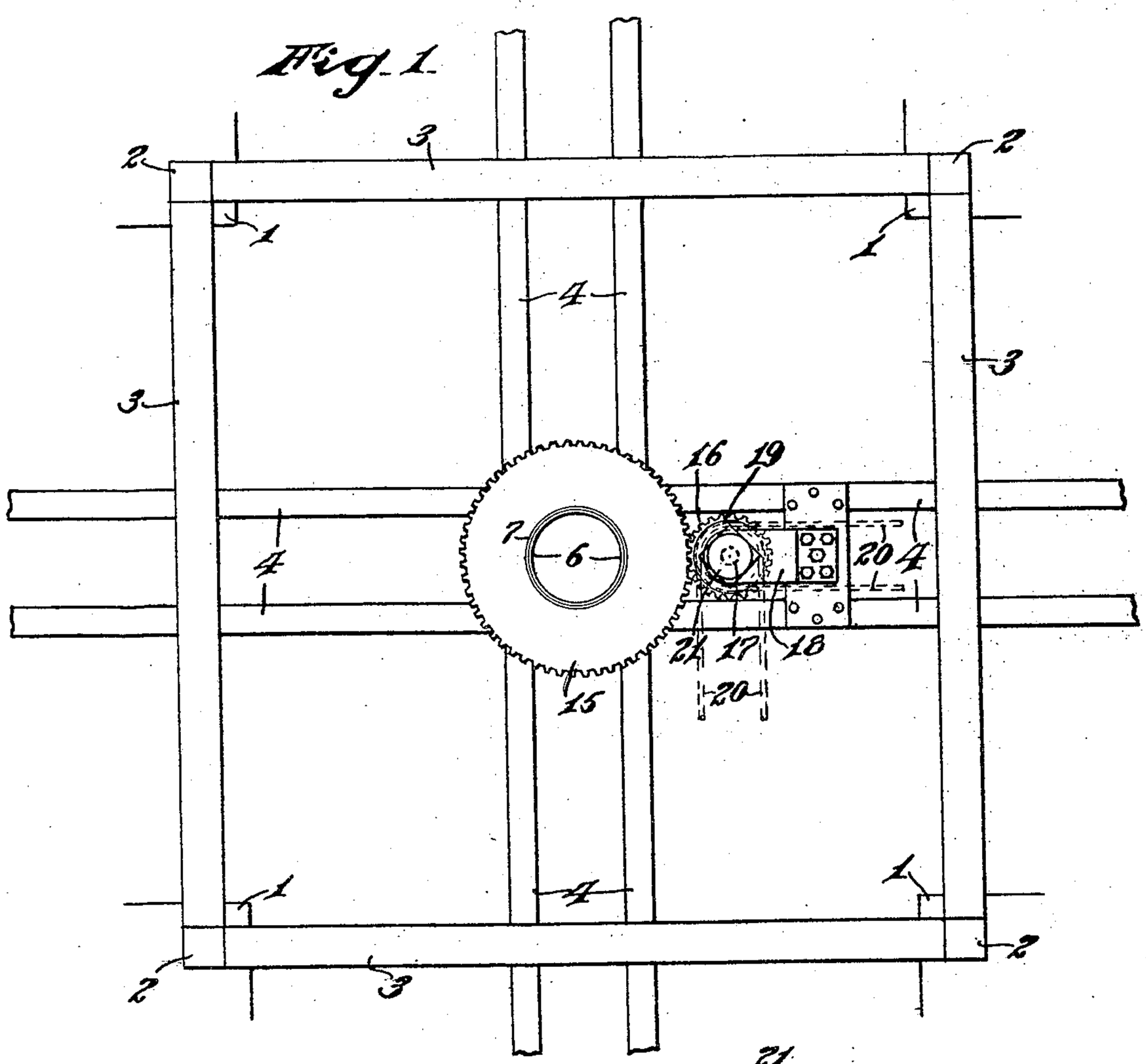

Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

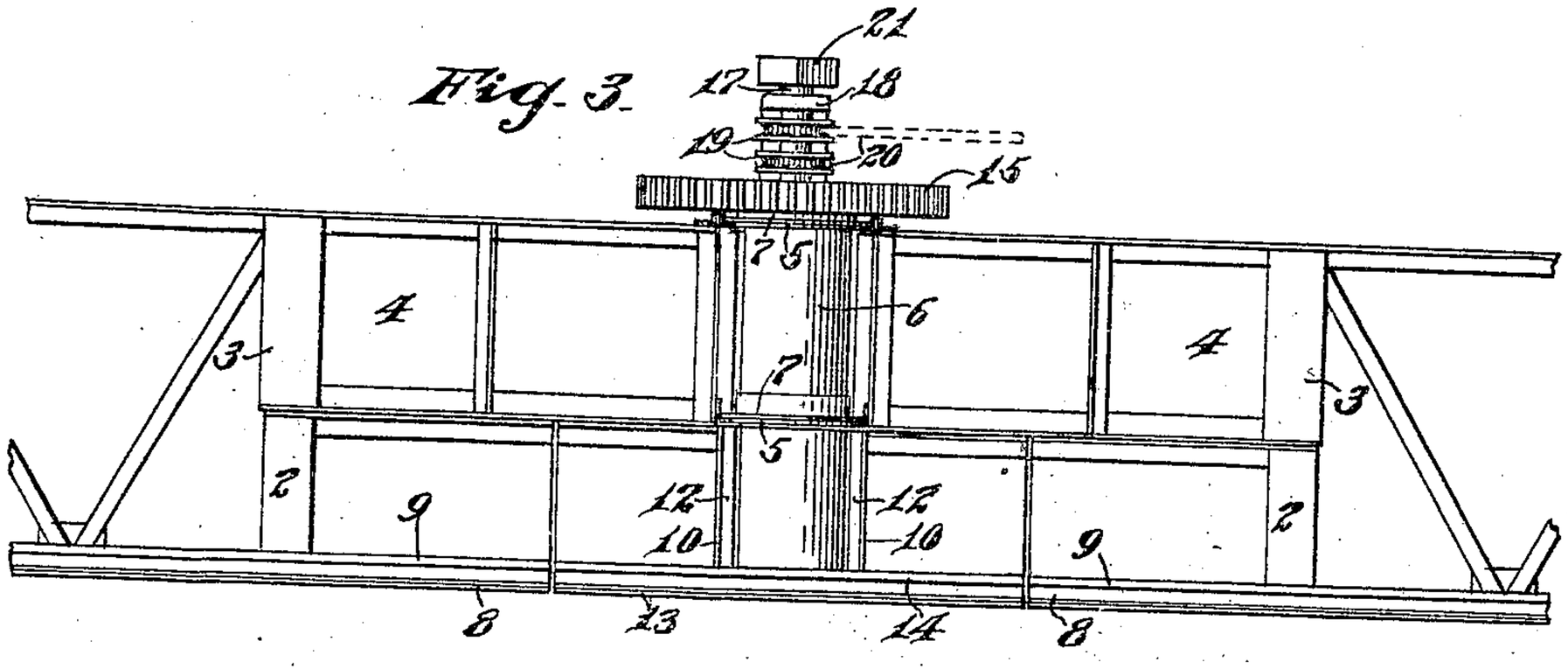
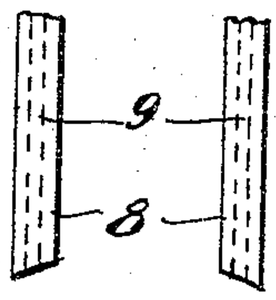


Fig. 4.



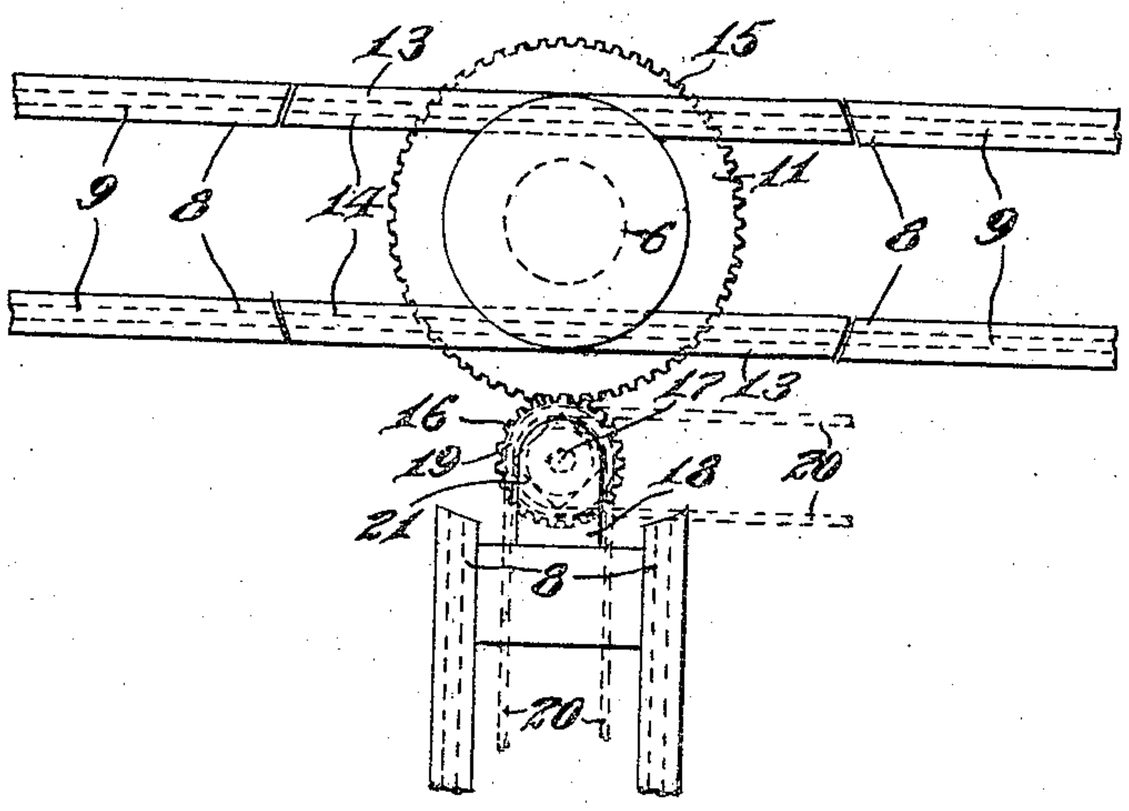
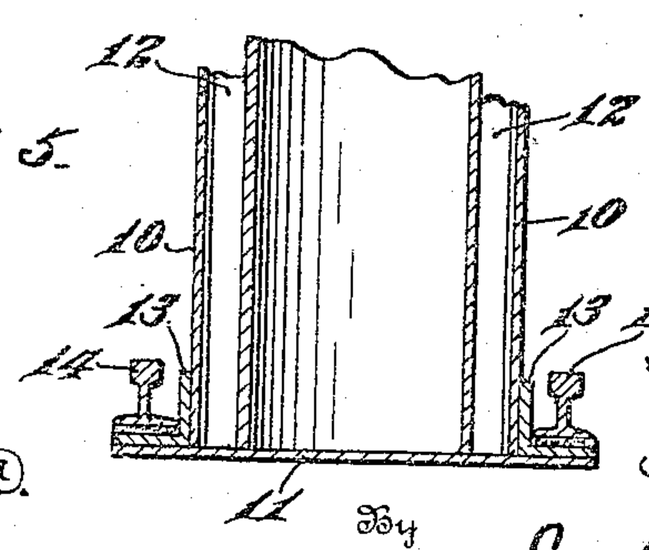


Fig. 5.



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SUSPENSION-RAILWAY CROSSING.

945,749. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed May 17, 1909. Serial No. 496,368.

To all whom it may concern:

Be it known that we, FRANK O. BUTLER and SOREN C. ROCKMAN, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Suspension-Railway Crossings, of which the following is a specification.

Our invention relates to an improved suspension railway crossing, the object of the invention being to provide an improved construction of mounting, whereby a section of track may be turned to register its rails with either of two tracks at right angles to each other, so as to open either of said tracks.

A further object is to provide an improved construction of, and means for, supporting the rotary track section, and improved means for turning the same.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a top plan view illustrating our improvements. Fig. 2, is a view partly in section and partly in elevation showing the crossing section in one position. Fig. 3, is a view similar to Fig. 2, showing the crossing section in its other position. Fig. 4, is a fragmentary bottom plan view, and Fig. 5, is an enlarged view in cross section of the crossing section.

1 represents the street corners, 2 vertical columns, and 3 transverse girders supported on columns 2, and forming a rectangular frame work to support the girders 4 of track sections runing at right angles to each other. These girders 4 meet at the center of the rectangular frame composed of girders 3, and rings 5 are rigidly secured to the meeting ends of these girders 4, and support a rotary cylinder 6, which latter has rings 7 secured around the same and supported upon the rings 5, so as to provide a rigid support for the cylinder, yet permit it to turn.

The lower portions of the girders 4 terminate about half-way between the cross girders 3 and the cylinder, and these short sections which we designate 8, carry the rails 9, upon which the suspension railway car, not shown, is adapted to run.

The cylinder 6 has parallel plates 10 at the sides thereof, and these plates 10 are connected at their lower edges by a cross plate 11, and strengthened by angle irons 12, and also strengthened by horizontal angle irons 13 at their lower edges, upon which the rail sections 14 are mounted.

A circular rack 15 is secured upon the upper end of the cylinder, and is engaged by a pinion 16 on a shaft 17, the latter mounted in a bracket 18 secured upon one of the girders 4.

Pulleys 19 are secured upon shaft 17, and may be operated by cables 20 from a distance, and an angular head 21 is provided on the shaft adapted for the reception of a wrench or other suitable implement to manually turn the cylinder.

The operation is as follows: If a car is approaching the crossing, and the rail section is turned across the track upon which the car is approaching, the shaft 17 will be turned either by cable 20 from a distance, or by hand, so as to turn pinion 16, rack 15, and cylinder 6, thus swinging the track section around until it alines with the track upon which the car is approaching, when the car may pass the crossing and proceed on its way.

Various slight changes might be made in the general form and arrangements of parts described without departing from our invention, and hence we do not restrict ourselves to the precise details set forth, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the claims.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a suspension railway, the combination with two tracks at right angles to each other, of an elevated support, a rotary cylinder depending from said support, and track sections secured to said cylinder, and adapted to be positioned by the cylinder in alinement with either of said tracks.

2. In a suspension railway, the combination with two tracks at right angles to each other, of an elevated support, a depending cylinder having rotary mounting in said support, track sections secured to opposite sides of said cylinder, and a rack and pinion to turn said cylinder, to move said track sections in line with the rails of either of said tracks.

3. In a suspension railway, the combination

with two tracks at right angles to each other, of an elevated support, a depending cylinder having rotary mounting in said support, track sections secured at opposite sides of said cylinder, a rack around said cylinder at its upper end, and a pinion meshing with said rack, and adapted to turn said cylinder and track sections.

4. In a suspension railway, the combination with two tracks at right angles to each other, of an elevated support, a depending cylinder having rotary mounting in said support, parallel angle irons secured at the sides of said cylinder, rail sections secured on said angle irons, and means for turning the cylinder.

5. In a suspension railway, the combination with girders at right angles to each other and forming a juncture, rails supported by said girders and terminating short of the juncture of the girders, a rotary device supported at the juncture of said girders, and track sections secured to said rotary device and adapted to be moved to aline with either of said tracks.

6. In a suspension railway, the combination with girders at right angles to each other and forming a juncture, rails supported by said girders and terminating short of the juncture of the girders, a cylinder supported to turn at the juncture of said girders, and track sections secured to said cylinder, and adapted to be moved when the cylinder is moved to position said track sections in line with either of said tracks.

7. In a suspension railway, the combination with girders at right angles to each other and forming a juncture, rails supported by said girders and terminating short of the juncture of the girders, a cylinder supported to turn at the juncture of said girders, and track sections secured to said cylinder, and adapted to be moved when the cylinder is moved to position said track sections in line with either of said tracks, a rack on said cylinder, and a pinion meshing with said rack.

8. In a suspension railway, the combination with girders at right angles to each other and forming a juncture, rails supported by said girders and terminating short of the juncture of the girders, a cylinder supported to turn at the juncture of said girders, and track sections secured to said cylinder, and adapted to be moved when the cylinder is moved to position said track section in line with either of said tracks, a rack on said cylinder, a pinion meshing with said rack, a shaft on which said pinion is secured, pulleys on said shaft and an angular head on said shaft.

9. In a suspension railway, the combination with four columns, cross girders connecting the columns, longitudinal girders secured to the cross girders and forming a juncture at the center of the frame formed by said cross girders, rings supported at the juncture of said longitudinal girders, a cylinder, rings or flanges on the cylinder supported on said first mentioned rings, tracks on the longitudinal girders terminating short of the juncture of said girders, and track sections secured to opposite sides of said cylinder, and adapted to be alined with either of the tracks on the girders.

10. In a suspension railway, the combination with four columns, cross girders connecting the columns, longitudinal girders secured to the cross girders and forming a juncture at the center of the frame formed by said cross girders, rings supported at the juncture of said longitudinal girders, a cylinder, rings or flanges on the cylinder supported on said first mentioned rings, tracks on the longitudinal girders terminating short of the juncture of said girders, track sections secured to opposite sides of said cylinder, a rack on said cylinder, and a pinion meshing with said rack, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANK O. BUTLER.
SOREN C. ROCKMAN.

Witnesses:
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J. A. L. MULHALL.