

track-jacks, Union track-drills, Perfection track-drills, Roller rail-benders, and Union counterbalance hoists for ore docks. They have a capital of \$300,000, and their works are situated on four acres of ground, occupying the block bounded by Hawthorne Avenue, Eastman, Dayton, and Rees Streets, having 450 feet front on the Chicago, Milwaukee and St. Paul Railroad. The buildings are of substantial character, built of brick, and cover nearly two-thirds of the property. All frogs, crossings, and split-switches are worked cold. All parts of the various appliances turned out are made to templet, are interchangeable, and are manufactured by special machinery. The Union counterbalance hoists for ore docks are the latest improved appliances for raising chutes on ore docks. This hoist has been placed on three large docks this year. The specialties manufactured, such as the Jenne track-jack, the Roller rail-bender, the Union and Perfection track-drills, and the Alkins forged steel rail-brace, are used on nearly every railroad in the United States and many foreign roads. The Jenne track-jack was the first friction track-jack put on the market.

↓ The Morden Frog and Crossing Works were incorporated in August, 1882, with an authorized capital stock of \$500,000. They are manufacturers of frogs, crossings, split-switches, switch-stands and fixtures, spring-rail frogs of improved patterns, stub-switch tie-bars, patent guard rail-

clamps, combination-slip and three-throw split-switches worked from one stand, Morden's patents, including the Childes and Latimer safety railroad bridge guard, and railroad track supplies in general. Their works are situated at South Chicago, and occupy five and one-eighth acres of ground, having 550 feet of track frontage on the Belt Railroad. The buildings are substantially built of brick, and 275 men are now employed in the works. The Morden track material is in use on 190 railroads in the United States, representing 78,000 miles of track, divided as follows: 29,040 stiff-rail track frogs, 2,045 spring-rail track frogs, 2,240 railroad track crossings, 11,050 Clarke and Jeffrey split-switches, 104 combination slip-switches, 10,750 switch-stands and connecting rods, 7,930 guard rails, bent, with clamps attached, 8,615 wrought-iron head chairs, and 16,505 stub-switch tie bars. The Morden material is manufactured by special machinery, and the steel rail is not heated, thus preserving its original quality.

The Hewitt Manufacturing Company are brass founders, manufacturers of self-fitting lead-lined journal bearings for railroad cars and locomotives, rolling-mill bearings, bells, and heavy castings of all kinds of brass and special bronzes. Their works are located at 21 Ontario Street. The daily capacity of the works is 15,000 pounds; their annual output is about 3,000,000 pounds; and their

1883

WM. J. MORDEN, Prest., Gen. Mgr. & Treas.]

[Incorporated Capital Stock, \$500,000

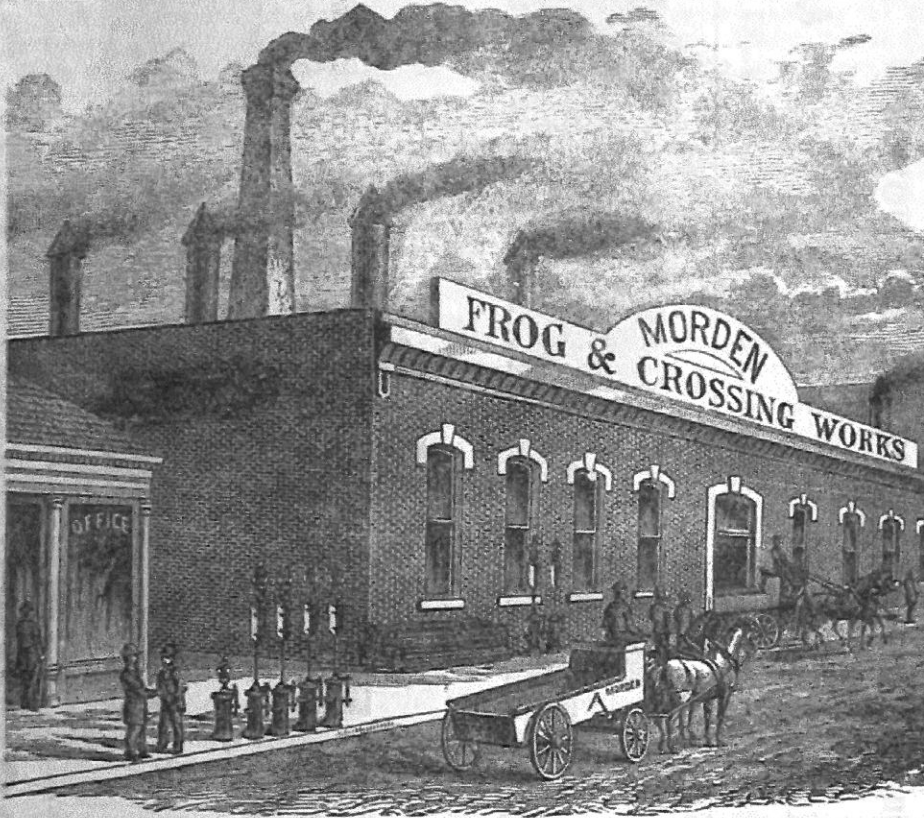
# MORDEN FROG AND CROSSING WORKS,

MANUFACTURERS OF

## WM. J. MORDEN'S PATENTS

AND

## General Railway Track Supplies.



**Morden's Solid Cast-steel Frog Points, with T Rail Wings.**

**Morden's All Steel T Rail U Plate Frogs and Crossings;**

**SPLIT SWITCHES, Miner's Stub Switch Attachment;**

**MORDEN'S Patent Tie-bar Clamp;**

**MORDEN'S Patent Guard Rail Clamp**

**Switch Stands of Any Pattern Desired.**

**Wrought and Cast Iron Switch Chairs;**

**Round and Flat Tie Bars, etc.**

There has been over 15,000 Morden Frogs and 1,500 Morden Crossings in use during the past seven years on the Leading Railways in this country and Mexico.

**Works: SOUTH CHICAGO, ILL.**

**City Office and Store Room:**

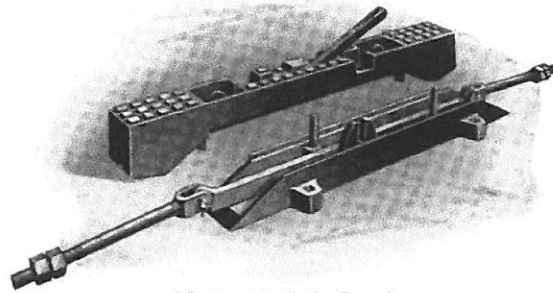
**No. 234 South Clark Street (Grand Pacific Hotel).**

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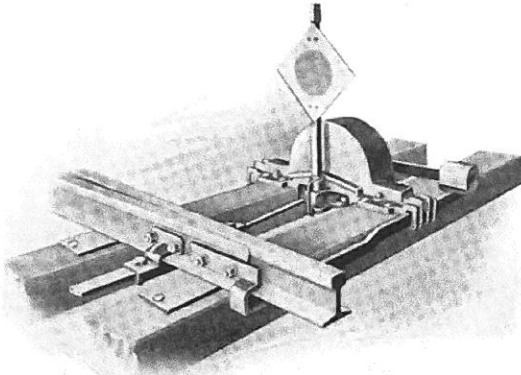
Annual Meeting of the Roadmasters Assoc. of America



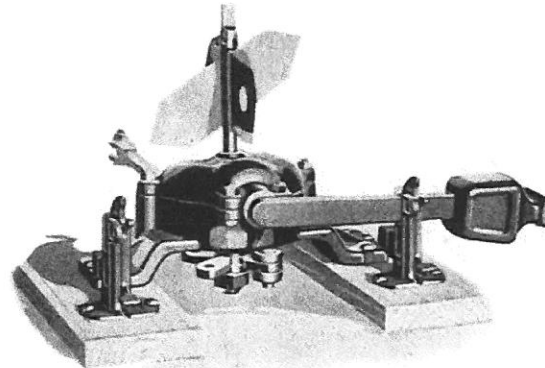
Jack Knife Switch Stand  
The Morden Frog & Crossing Works



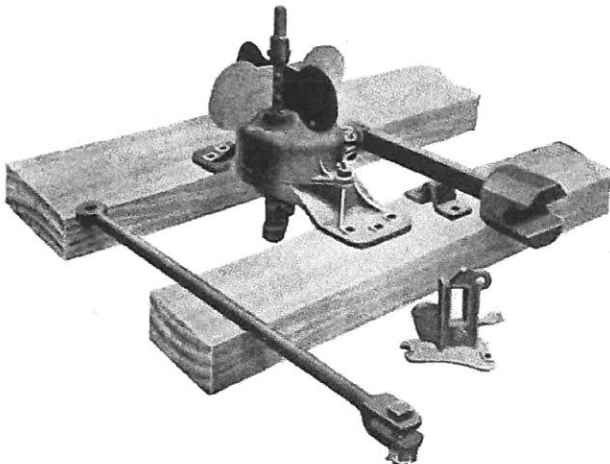
Housed Switch Stand  
The Morden Frog & Crossing Works



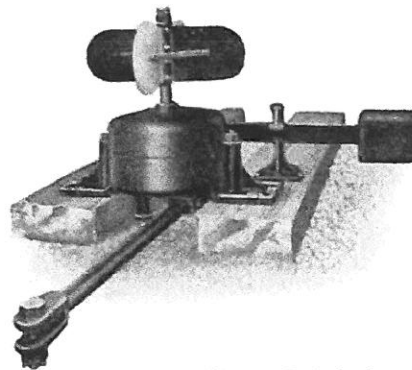
No-Rek Ground Throw Switch Stand  
The Morden Frog & Crossing Works



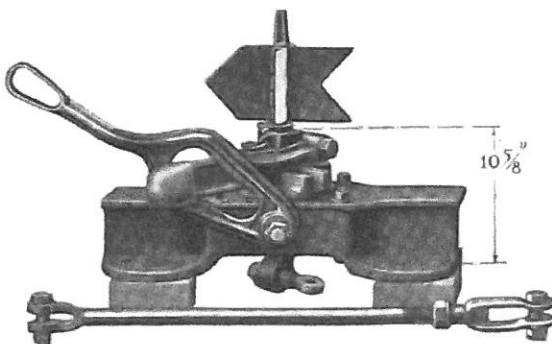
Anderson Economy Switch Stand  
The American Valve & Meter Co.



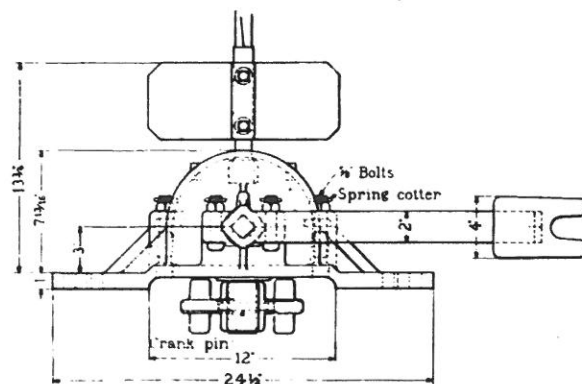
Parallel Throw Ground Switch Stand  
The Ajax Forge Co.



Automatic Ground Throw Switch Stand  
The Wier Frog Co.



Ramapo Low Switch Stand  
The Ramapo Iron Works  
(See Page 784)



Low Switch Stand  
The Pettibone Mulliken Co.  
(See Page 773)



1893

THE OFFICIAL RAILWAY LIST.

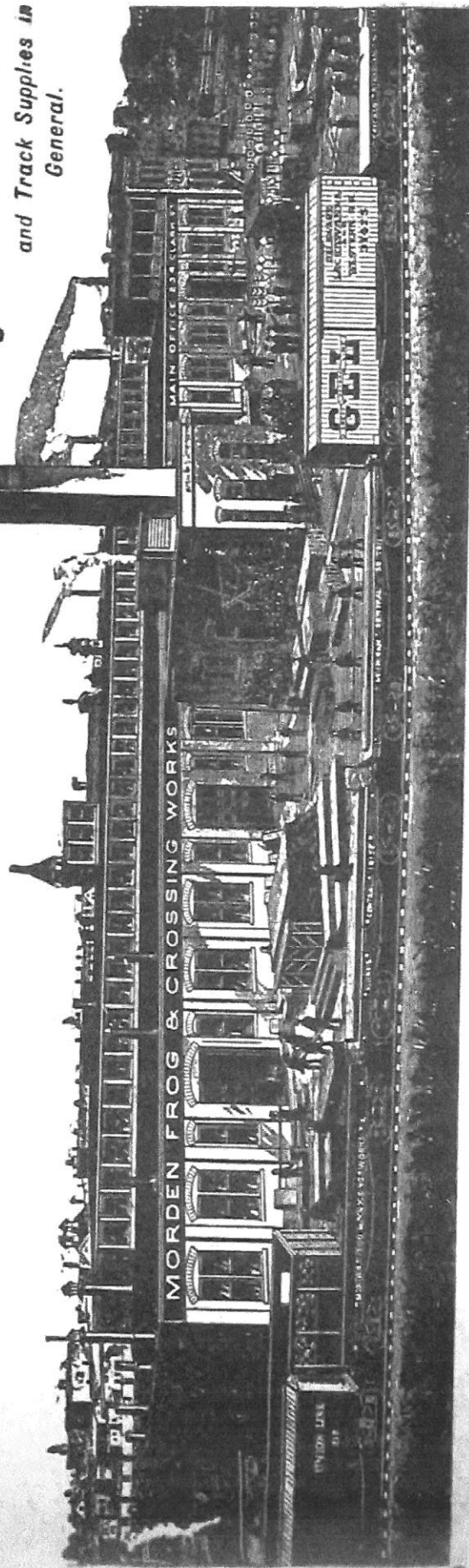
3

# MORDEN FROG AND CROSSING WORKS,

W. J. MORDEN, Gen. Mgr. and Treas.  
JOHN MCKINNON, Asst. Manager.

MANUFACTURERS OF  
**MORDEN'S PATENT  
FROGS, CROSSINGS, SWITCHES**

Switch Stands,  
Wrought Iron Head Chairs.  
*and Track Supplies in  
General.*



OFFICE: 234 S. CLARK ST., (Grand Pacific Hotel.) CHICAGO, ILL.

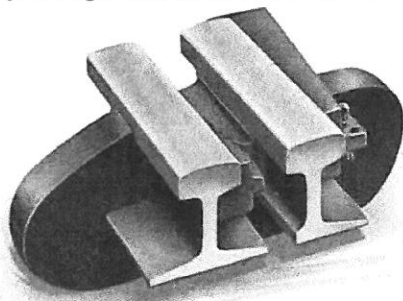
WORKS: SOUTH CHICAGO, ILL.

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## GUARD RAIL CLAMPS AND RAIL BRACES

### General

The Morden Frog and Crossing Works, Chicago, is a manufacturer of frogs, switches, switch stands, crossings, guard rails, guard rail clamps, compromise joints, tie bars, rail braces, and other track specialties, and of all kinds of standard or special track work for steam, electric and industrial railroads, being one of the oldest manufacturers of special track work in the Middle West. Established by Wm. Morden 40 years ago, the company has grown steadily with the

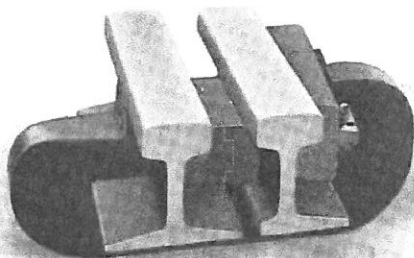


Guard Rail Clamp

increased use of its products until it is today a concern of imposing proportions, with a thoroughly modern and complete plant occupying fourteen acres. It includes a department devoted specially to manganese steel track work, and is equipped to handle all ordinary rail construction from 16-lb. rail up to heavy frogs and switches of 130-lb. section.

### Adjustable Guard Rail Clamps

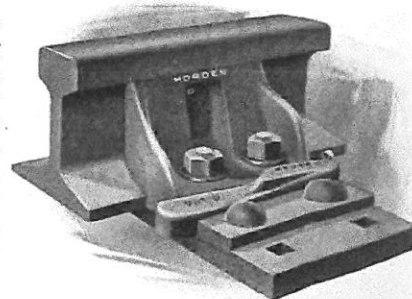
One of the products of this company to which special attention has been given is the Morden adjustable guard rail clamp, which has been in constant and extensive use throughout the country for 15 years. This clamp is of two types, the Standard type, for ordinary use, and the Detector-bar type, designed to meet the requirements in terminal yards and at other points equipped with switch locking detector bars. Each type of clamp consists of a massive wrought iron yoke, a malleable adjusting wedge, and two malleable iron filler blocks, heavily ribbed and reinforced. The yoke of the Detector type of clamp, the only point wherein the two types differ, has one end forged down to give the necessary clearance for the detector bar without loss of strength. The clamps are applied



Morden Detector Bar Clamp

by simply slipping on the yoke, inserting the filler blocks, and driving in the wedge without disturbing the guard rail. Vertical displacement of the wedge is

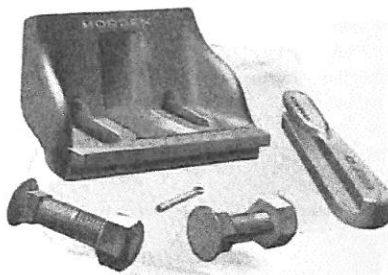
prevented by the rib which engages a slot in the yoke, and it is prevented from slipping out by its shape and by a cotter key inserted in one of several holes provided in one end. Both the yoke and wedge fit the fishing section of the rail accurately, thus preventing any rocking or overturning movement. The filler blocks are wedge-shaped, mortise together lengthwise, and have either saw tooth or plain faces. The clamps are practically indestructible. They permit of about  $\frac{3}{4}$  in. adjustment and have all parts interchangeable. One clamp is generally sufficient for an 11 ft. guard rail, two for 15 ft. lengths.



Adjustable Rail Brace

### Adjustable Rail Brace

Another Morden product which is widely used is the Morden adjustable rail brace which is designed to meet the need for a simple and effective means of maintaining the proper track gage at slip or split switches. This need is especially pronounced on track subject to continuous travel of fast and heavy trains, as the ordinary rail brace provides no means of taking up the unavoidable wear occurring between the brace, rail and plates. Aside from taking up this wear the Morden adjustable rail brace can often be employed to advantage during initial construction, particularly in slip switch work or at terminals where time is limited. It is well adapted for use also in interlocking switches by insuring the close adjustment required by interlocking mechanism. The brace is of high grade malleable iron and consists of the brace proper, and the wedge which bears against any form of stop or abutment on the plate. The brace is held to the plate by two bolts or lag screws, the bolts passing close to the



Rail Brace Parts

rail flange to insure a positive clamping action on the rail. It is forced against the rail simply by driving the wedge between the toe of the brace and the stop block on the plate. The brace can be installed, adjusted, and renewed without disturbing the rail, tie or plate. No lateral adjustment is required and the brace always maintains its position properly centered on the plate. The wedge mortises into the brace and is secured against slipping out by a cotter key. The stop block is square with the plate and brace, insuring the brace from backing off should it become loose.

MORDEN FROG & CROSSING WORKS, CHICAGO, ILL.

July 15, 1924.

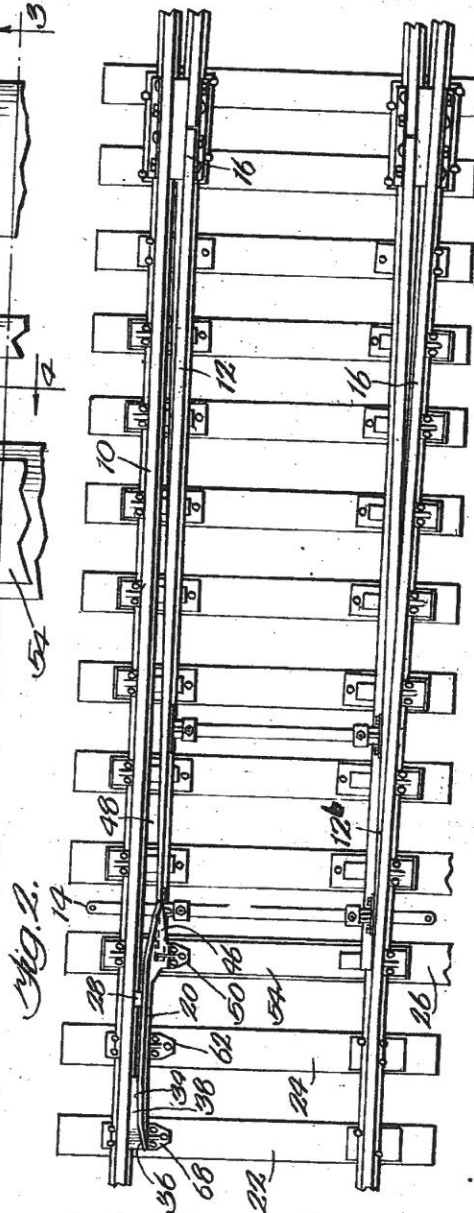
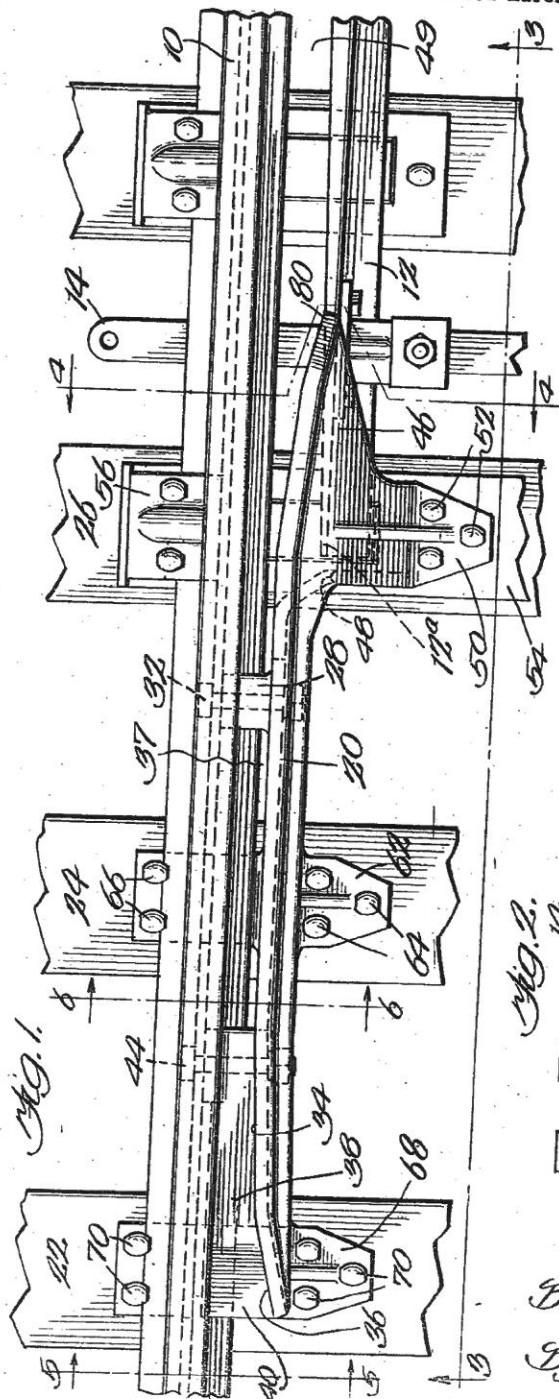
B. T. GIBBS, JR

1,501,215

GUARDRAIL FOR SWITCHES

Filed March 3, 1924

2 Sheets-Sheet 1



Inventor:  
Benedict T. Gibbs Jr  
By Cheever & Cox  
Attys.

B. T. GIBBS, JR.

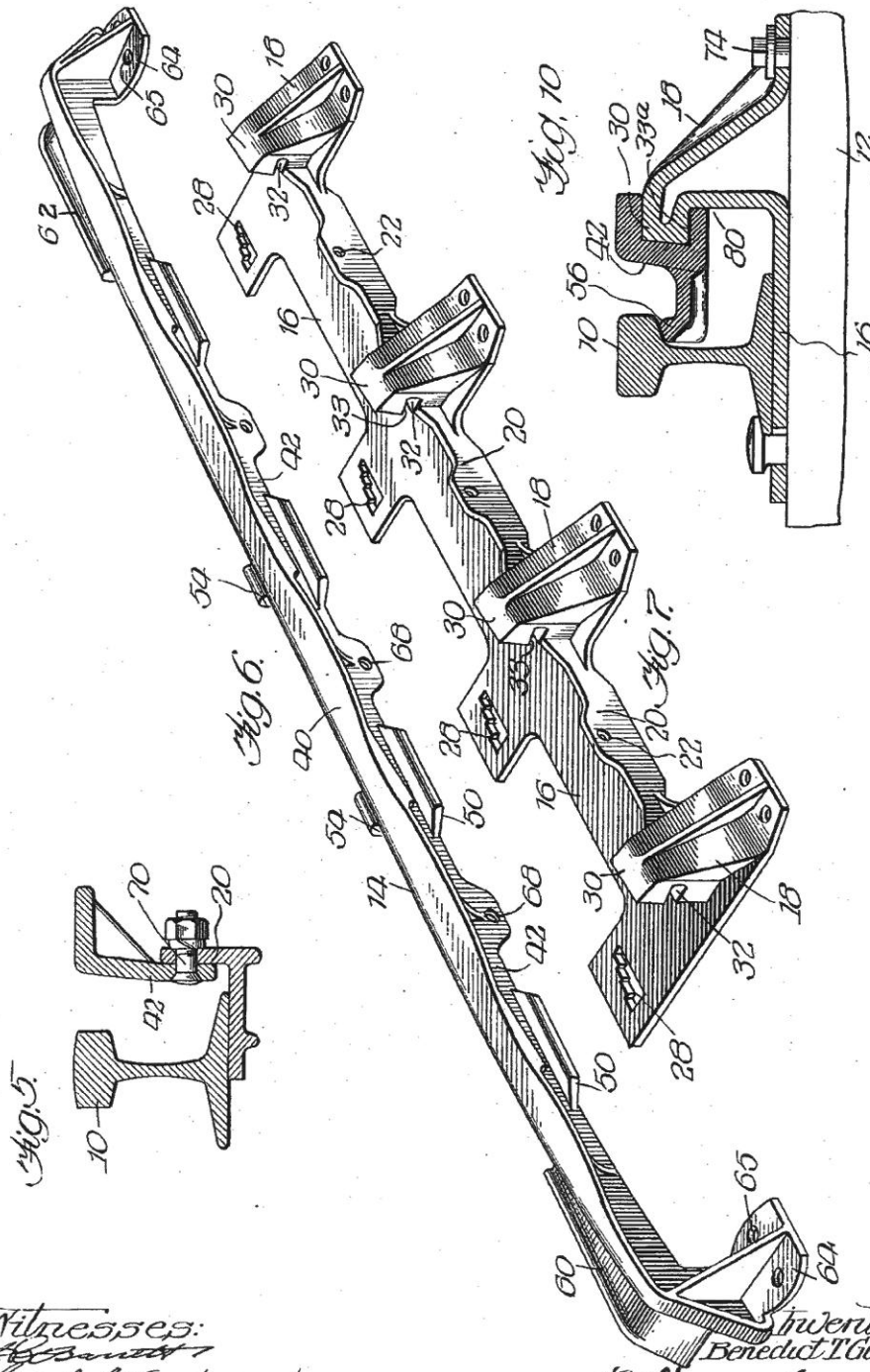
GUARD RAIL.

APPLICATION FILED DEC. 20, 1915.

Patented Feb. 29, 1916.

3 SHEETS—SHEET 2.

1,173,420.



Witnesses:  
Paul S. Anderson

Inventor:  
Benedict T. Gibbs  
By Chever & Cox

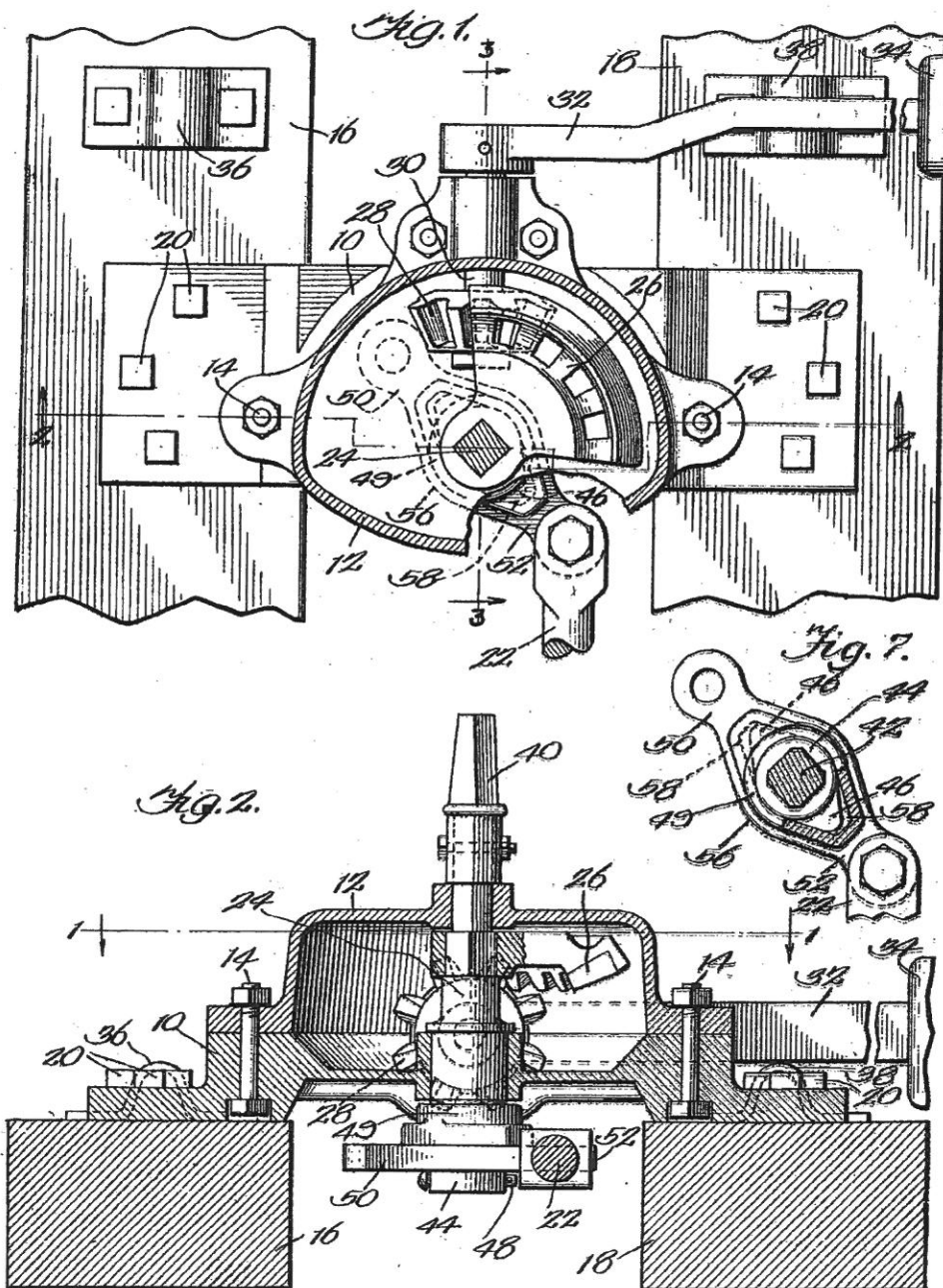


Mar. 20, 1923.

1,448,957.

B. T. GIBBS, JR.  
RAILWAY SWITCH STAND,  
FILED DEC. 15, 1922.

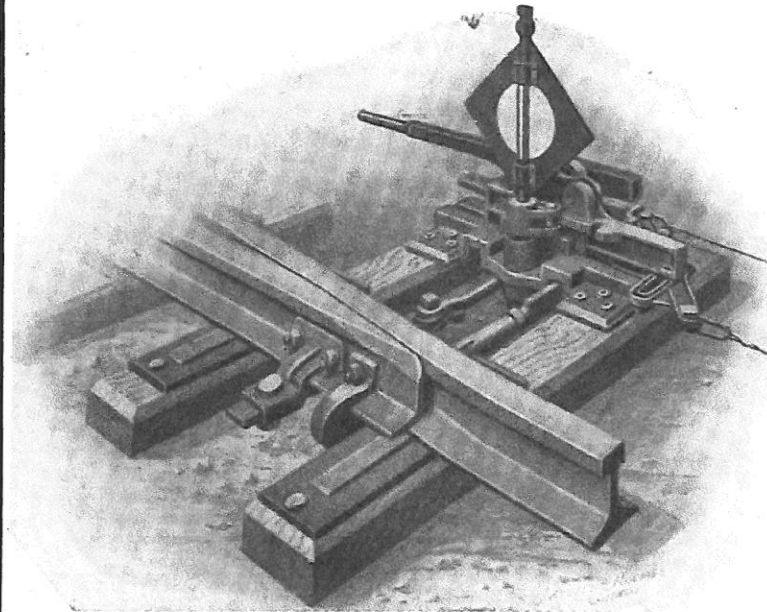
2 SHEETS—SHEET 1.



Inventor:  
Benedict T. Gibbs Jr  
By Chewer & Cox Attys.

**MORDEN FROG & CROSSING WORKS**

CHICAGO, ILLINOIS

**UNITY SWITCH STAND**

Operating and Interlocking Switch and Distant Signal

**High Grade Standard and  
Special Track Work for  
Steam and Electric Roads.**

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**RIGID AND SPRING  
RAIL FROGS,**
**CROSSINGS,****SWITCHES AND SWITCH  
STANDS,****GUARD RAIL CLAMPS,****RAIL BRACES.**

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**LIFTING DERAILS**

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**MAGANESE STEEL  
FROGS**
**SPECIFY****WHALL'S FIBRE**

Made especially for Track Insulation.  
Insulating Patent Joints a Specialty.  
Renewals for Weber and other Joints.  
Originators of Fibre Track Insulation.

**WHALL'S FUSEES****C. H. WHALL & COMPANY****170 SUMMER STREET,****BOSTON, MASS.**