

No. 826,945.

PATENTED JULY 24, 1906.

C. W. LANDERS.  
RAILWAY RAIL.  
APPLICATION FILED NOV. 2, 1905.

FIG. 1

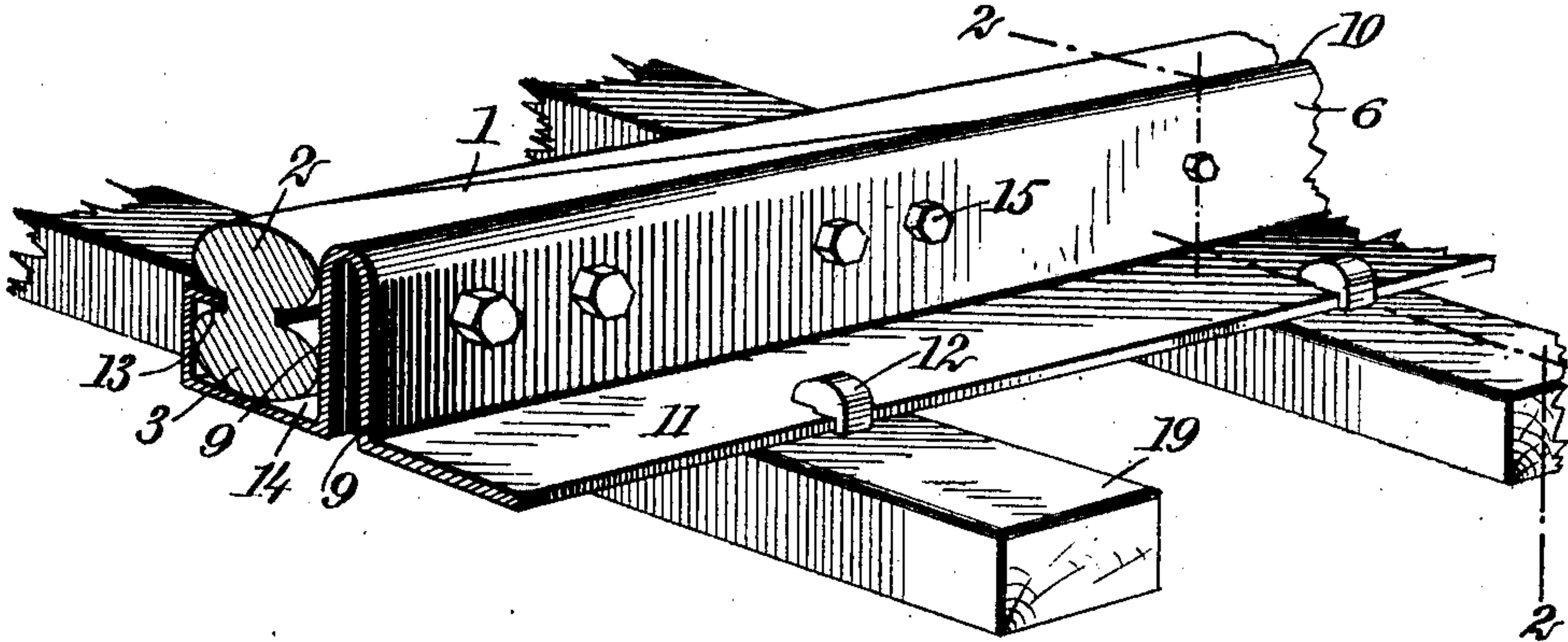
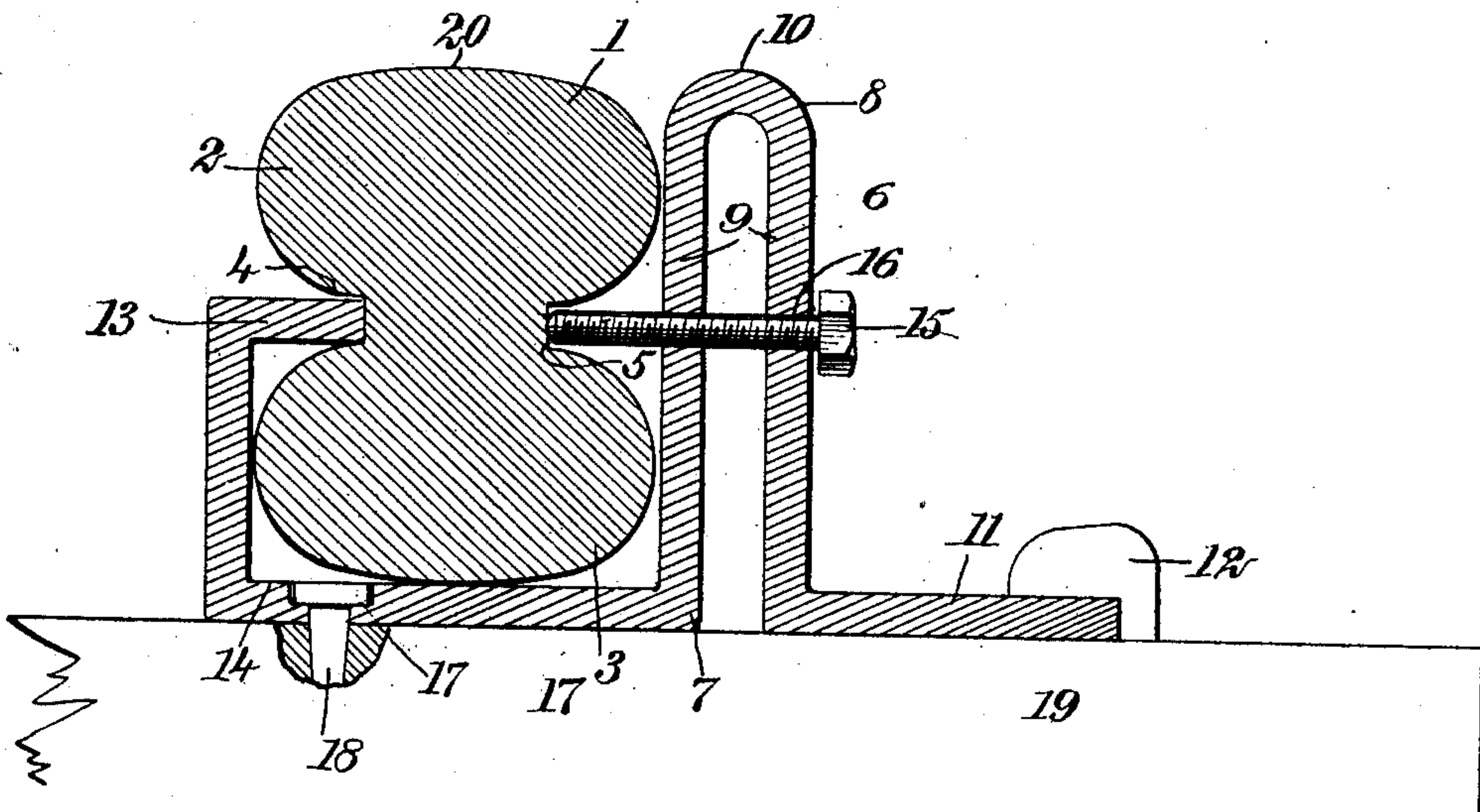


FIG. 2



WITNESSES:

*John J. Kitts*  
*J. D. Ammer*

INVENTOR  
*Charles W. Landers*  
BY *M. M. M.*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

CHARLES WILLIS LANDERS, OF GENOA, NEBRASKA.

## RAILWAY-RAIL.

No. 826,945.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed November 2, 1905. Serial No. 285,558.

*To all whom it may concern:*

Be it known that I, CHARLES WILLIS LANDERS, a citizen of the United States, and a resident of Genoa, in the county of Nance and State of Nebraska, have invented a new and Improved Railway-Rail, of which the following is a full, clear, and exact description.

This invention relates to railway-rails.

10 The object of the invention is to produce a rail of great strength and durability and which will be reversible in character, so that either face of the rail may be used as the tread or head.

15 The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

20 Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

25 Figure 1 is a perspective showing a short portion of a railway-rail constructed according to my invention and representing portions of cross-ties to illustrate the manner of attaching the rail thereto, and Fig. 2 is a vertical cross-section through the rail and representing a portion of the cross-tie as broken away.

30 Referring more particularly to the parts, 1 represents the body of the rail. The form in cross-section of this rail is most clearly shown in Fig. 2. It comprises an upper head 2 and 35 a lower head 3 of equal dimensions and separated by grooves 4 and 5, formed in the sides of the rail-body, as shown. It will be seen that the rail-section is symmetrical with respect to a horizontal plane as well as a vertical plane.

40 In addition to the body 1 of the rail I provide a shell or girder 6. This girder is preferably formed of structural steel or similar material and is formed with a base-plate 7, in the upper face whereof there is formed an upwardly-projecting bead 8. This bead is formed by bending the material of the plate so as to form two adjacent webs 9, connected by a knuckle or bend 10 at their upper edges. 45 By forming the bead 8 at an intermediate point on the width of the girder an outwardly-projecting flange 11 is formed, which constitutes a part of the base-plate and adapts the girder to be held in position by means of 50 spikes 12, as shown.

The body of the base-plate 7 which lies to

the left of the bead 8, as shown in Fig. 2, is bent upwardly and inwardly, so as to present a horizontal flange 13, which projects toward the bead 8, as shown. In this way a 60 longitudinal channel 14 is formed in the girder. In this channel is received the body 1 of the rail, as shown, and the parts are so proportioned that when the body is arranged as indicated the flange 13 will be received in 65 the groove 4 of the rail-body, as indicated. In order to support the rail-body in an upright position, the bead 8 is provided at suitable points with bolts 15, which pass through threaded openings 16 in the webs 9, as shown. 70 The extremities of these bolts are received in the groove 5 opposite to the groove 4. Through the body of the base-plate 7 at the channel 14 openings 17 are formed, which receive spikes 18, projecting through into the 75 cross-ties 19 in the same manner as the spikes 12. Upon the heads of the spikes 18 the body 1 of the rail rests.

It should be understood that the wheels of the car run upon the upper face 20, which 80 the body 1 of the rail presents. From this arrangement it becomes impossible for the spikes 18 to work loose. As the upper head 2 becomes worn by use the body 1 of the rail may be reversed, so as to put the head 3 up- 85 permost, it being understood that when this is done the groove 5 will receive the flange 13 in the same manner as the groove 4 originally received it, and the groove 4 will receive the clamping-bolts 15. In this way a very rigid 90 railway-rail is produced which is capable of reversal when worn, so as to increase the life of the rail.

It should be understood that the shell or girder 6 extends continuously throughout 95 the entire length of the rail.

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

1. A railway-rail comprising a reversible 100 body having grooves in the sides thereof, a girder extending longitudinally of said body and having a flange engaging one of said grooves, and bolts mounted in said girder and abutting at their extremities against the 105 groove opposite said flange.

2. A railway-rail comprising a reversible body having a groove in each side thereof, a girder extending longitudinally of said body and adapted to be secured to the ties, said 110 girder presenting a flange engaging one of said grooves and having a bead on the side of said

body opposite said flange, and means mounted in said bead for engaging the groove opposite said flange.

3. A railway-rail comprising a reversible  
5 body, a girder presenting a channel receiving the lower portion of said body and having means for engaging the side of said body, said girder having an upwardly-projecting bead at the side of said channel, and bolts

carried by said bead engaging the sides of 10 said body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES WILLIS LANDERS.

Witnesses:

Mrs. E. S. BELL,  
ROBT. RESLER.