

No. 641,524.

Patented Jan. 16, 1900.

L. LESHER.  
COMBINED CHAIR AND RAIL BRACE.

(Application filed Aug. 2, 1899.)

(No Model.)

FIG. 1.

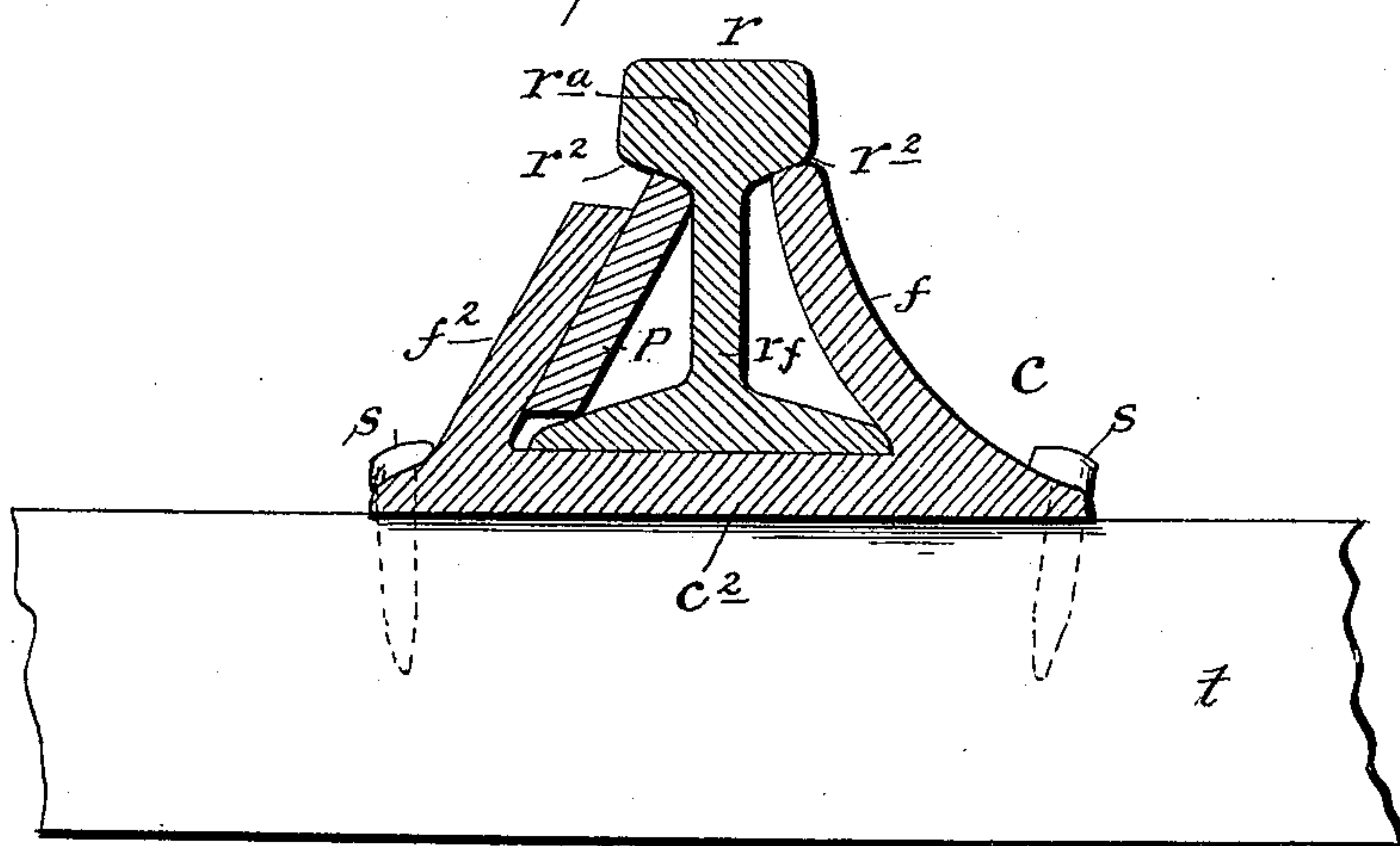


FIG. 2.

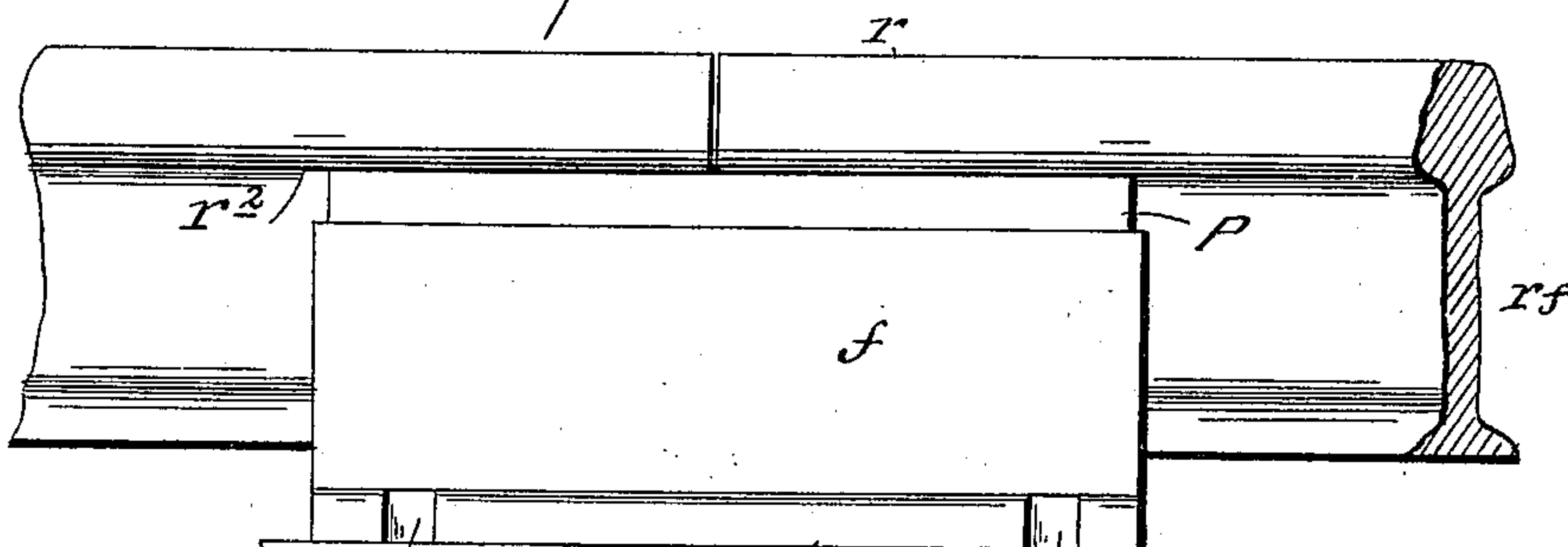


FIG. 3.

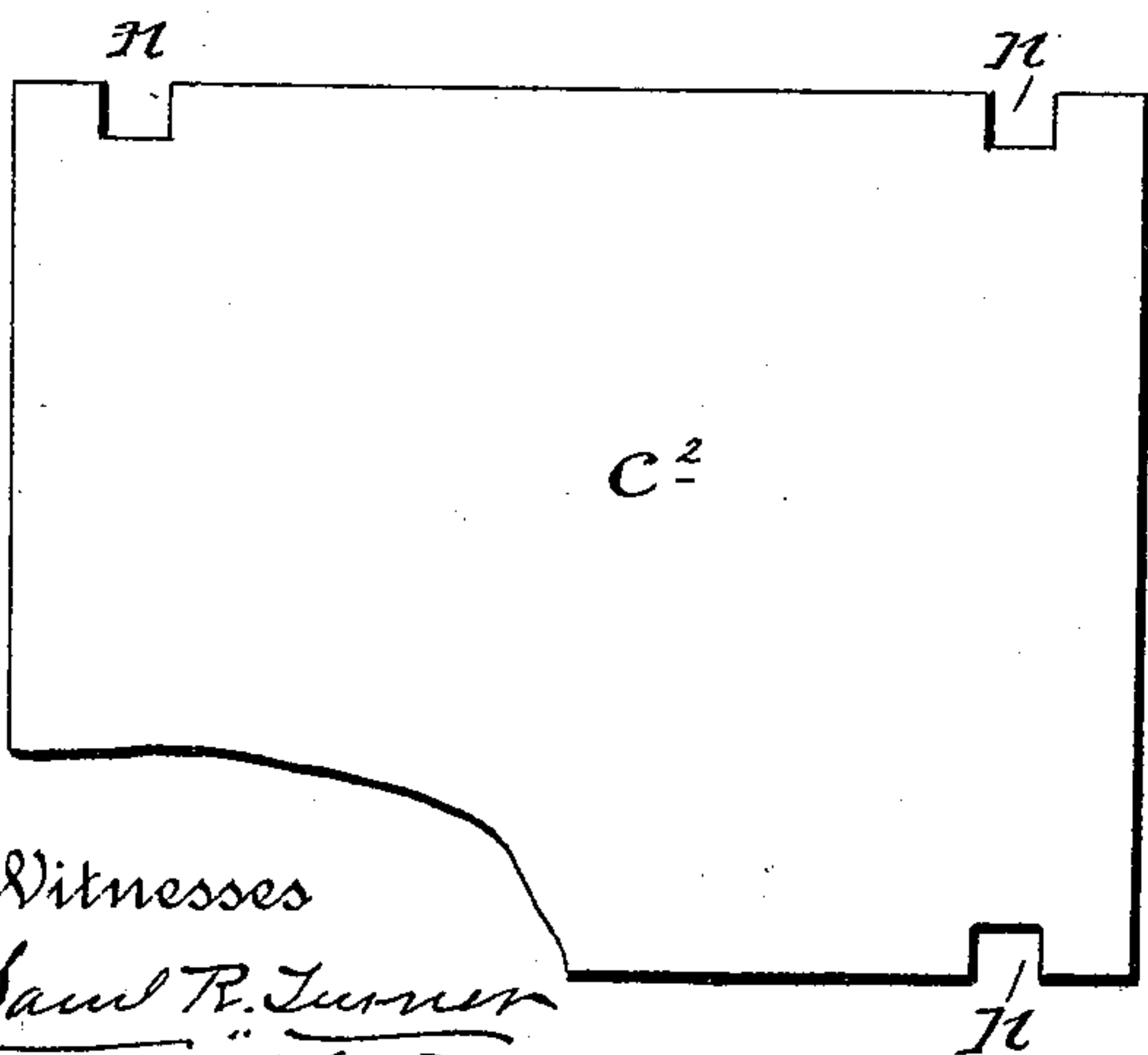
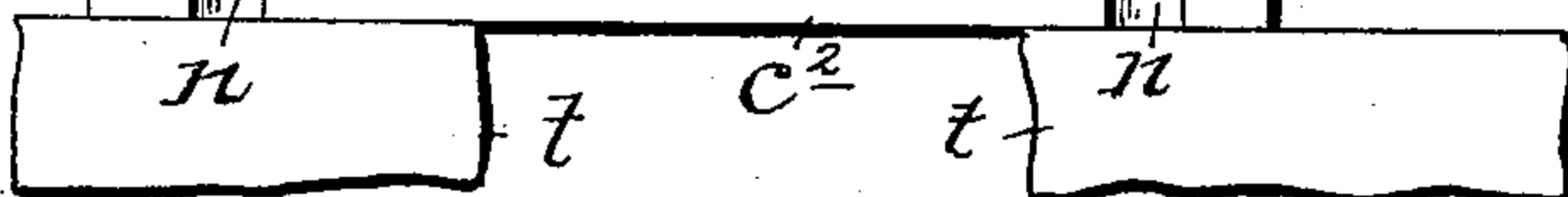
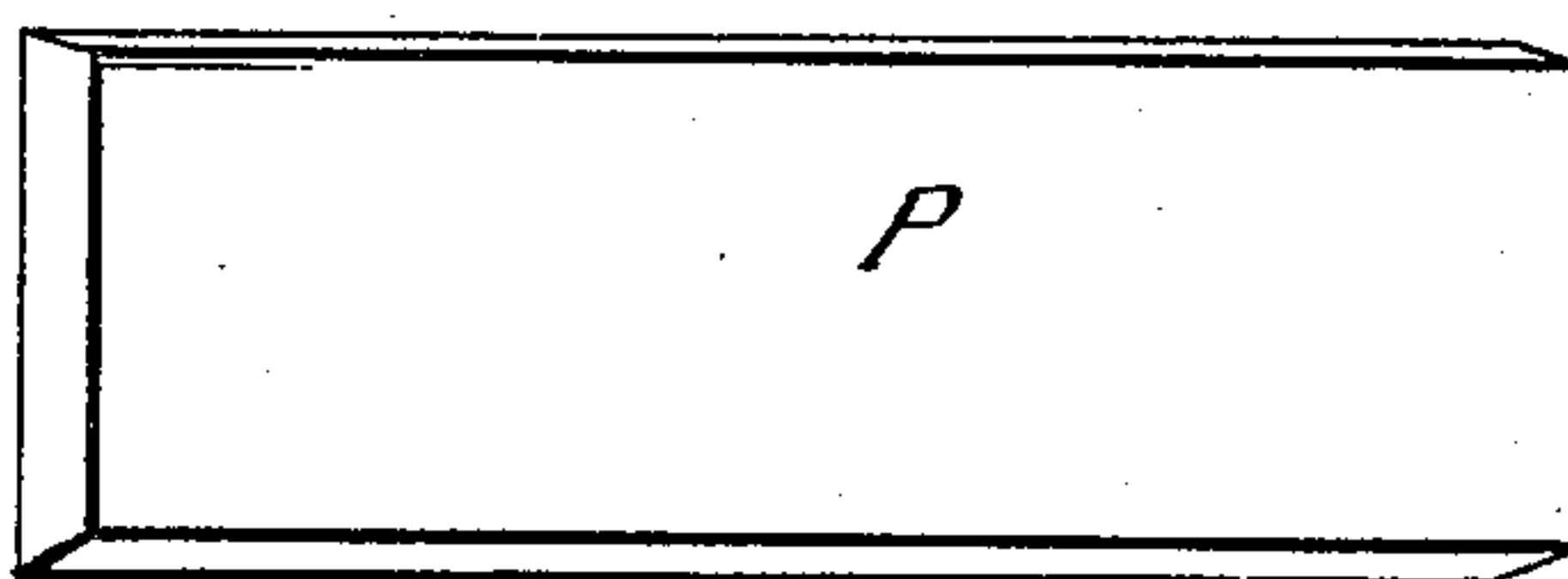


FIG. 4.



Witnesses

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Lewis Leshner

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# UNITED STATES PATENT OFFICE.

LEWIS LESHER, OF TAMAQUA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO  
CHARLES E. CHRIST, OF SAME PLACE.

## COMBINED CHAIR AND RAIL-BRACE.

SPECIFICATION forming part of Letters Patent No. 641,524, dated January 16, 1900.

Application filed August 2, 1899. Serial No. 725,850. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS LESHER, a citizen of the United States, and a resident of Tamaqua, in the county of Schuylkill, in the State of Pennsylvania, have invented a new and useful Combined Chair and Rail-Brace, of which the following is a detailed description.

The invention relates to a simple and effective means for securing a railway-rail in place upon its support, such means being adapted to embrace the rail firmly by the lower portion of its tread in such manner as to prevent the rail from being moved either to the right or to the left from its proper perpendicular adjustment upon its ties.

The railway-chair or rail-receiver in question consists, essentially, of a flat horizontal base which rests upon and is suitably secured to a tie, sleeper, or other support, a lateral marginal flange which from such base extends upwardly and inwardly to the lower portion or shoulder of the tread of the two received rails, an opposite similarly-inclined marginal flange which rises nearly to the opposite shoulder of the rails, and a bar or plate which is forcibly inserted endwise between such opposite marginal flange and the corresponding portion of the rails and which bears firmly against the same, against the shoulder, and against the flanges of the rails.

In the accompanying drawings, which constitute a part of this specification, Figure 1 represents in side elevation a portion of a rail-tie or sleeper, upon which, seen in transverse vertical section, are the above-described chair or rail-receiver, its rail, and its flat securing bar or plate. Fig. 2 is a side elevation of the parts represented in Fig. 1. Fig. 3 is a plan or outline of the base of the chair or receiver, showing the marginal notches which receive the securing-spikes. Fig. 4 is a detail of the intermediate securing bar or plate.

As will be clearly seen in Figs. 1 and 3, the chair or rail-receiver *c*, which is composed of suitable metal, as iron or steel, has a flat oblong base or bed plate *c*<sup>2</sup>, which along one side or margin has an upwardly-rising flange *f*, which inclines inwardly at a distance in its main portion from the web or body of the rail and at its upper extremity bears against the shoul-

der *r*<sup>2</sup> of the tread *r* of the rail *ra*, while along the opposite edge or margin is provided another flange *f*<sup>2</sup>, which has flat parallel faces and which rises at a similar inclination, but terminates upwardly at a short distance below the shoulder of the rail. These parts being in place, the flat bar or plate *p*, the edge of which is by preference slightly tapered, is by its narrower end inserted between the rail and its chair, the upper and lower edges of the bar or plate *p* bearing, respectively, against the shoulder *r*<sup>2</sup> and the flange *rf* of the rail, while its outer face bears flatwise against the correspondingly straight and flat inner face of the chair-flange *f*<sup>2</sup>.

In laying down a line of track a series of the chairs or rail-receivers *c* are secured in successive order—one at the junction of each two track-rails—suitable spikes *s* being driven into the ties *t* in engagement with the notches *n* in the margin of the chairs to retain the chairs in position, while in practice a securing-spike or equivalent stop is placed behind each bar or plate *p* to prevent backward movement of the same.

It will be noted that the flange *f* of the chair and the bar or plate *p* while at their extremities bearing against the flange and against the tread of the rail they are in their intermediate portions remote from the vertical body or web of the rail—that is, they bear against the parts which require to be secured and supported, while avoiding undue consumption of material by filling space to no purpose.

The invention having been thus described, what is claimed is—

1. A railway-rail; a rail chair or receiver which upon one of its margins has an upwardly and inwardly extending retaining-flange which in its main portion is not in contact with the web or body of the rail, which at its upper extremity bears against the coincident shoulder of the rail, and which at its opposite margin has a corresponding flange which is flat upon its inner surface, and which is similarly inclined toward but which comes short of the opposite shoulder of the rail; and an inclined brace plate or bar which has flat, parallel, inner and outer surfaces, which is longitudinally received intermediately of the



5 rail and its receiver, in face-to-face contact with such opposite corresponding flange, which by its edges bears against the shoulder and against the flange of the rail; and which  
15 in its main portion is remote from the body or web of the rail, in combination, substantially as specified.

2. A railway-rail; a rail chair or receiver  
10 which upon one of its margins has a retaining-flange which at its upper extremity bears against the shoulder of the railway-rail, and which upon its opposite margin has a corresponding similarly-inclined flange which extends toward the opposite shoulder of the  
15 rail; and a flat or straight sided inwardly-inclined brace plate or bar which is longitudinally received between the rail and its chair, which by its outer face bears flatly against the inner face of such corresponding flange,  
20 and which by its edges bears against the shoulder and against the flange of the rail; the brace-plate, and each of such inner and outer flanges, being not in contact with the vertical body of the rail, in combination.

25 3. The combination with a track-rail, of a rail chair or receiver which at one side has an inclined marginal flange or brace-plate which bears against the tread of the rail, and which at its opposite side has an inclined marginal  
30 flange which extends toward the tread of the rail; and a flat brace plate or bar un-

provided with recess or projection which is insertible endwise between the rail and its receiver, and which bears only by its upper extremity against the tread or shoulder of the  
35 rail, by its lower extremity against the flange of the rail, and by its main body against the inner face of the opposite inclined marginal flange of the chair or receiver; substantially as set forth. 40

4. A combined chair and rail-brace which consists of a horizontal rail-supporting portion or base; an upwardly and inwardly extending marginal flange or brace which at its upper extremity is adapted to bear against  
45 the shoulder of the rail; an opposite marginal flange, of like inclination, which when the rail is in place, extends nearly to the shoulder thereof; and a flat parallel-sided brace plate or bar which is adapted to be inserted  
50 between the rail and such opposite flange, and to bear only against the same, and against the shoulder and against the flange of the rail; substantially as specified.

In testimony whereof I have hereto affixed  
55 my signature, at Tamaqua, Pennsylvania, on this 22d day of July, 1899, in the presence of two subscribing witnesses.

LEWIS LESHER.

Witnesses:

CHAS. E. CHRIST,  
W. J. THANNEY.