

No. 681,567.

Patented Aug. 27, 1901.

C. H. McDERMOTT.  
RAILROAD TRACK.

(Application filed Apr. 23, 1901.)

(No Model.)

Fig. 1.

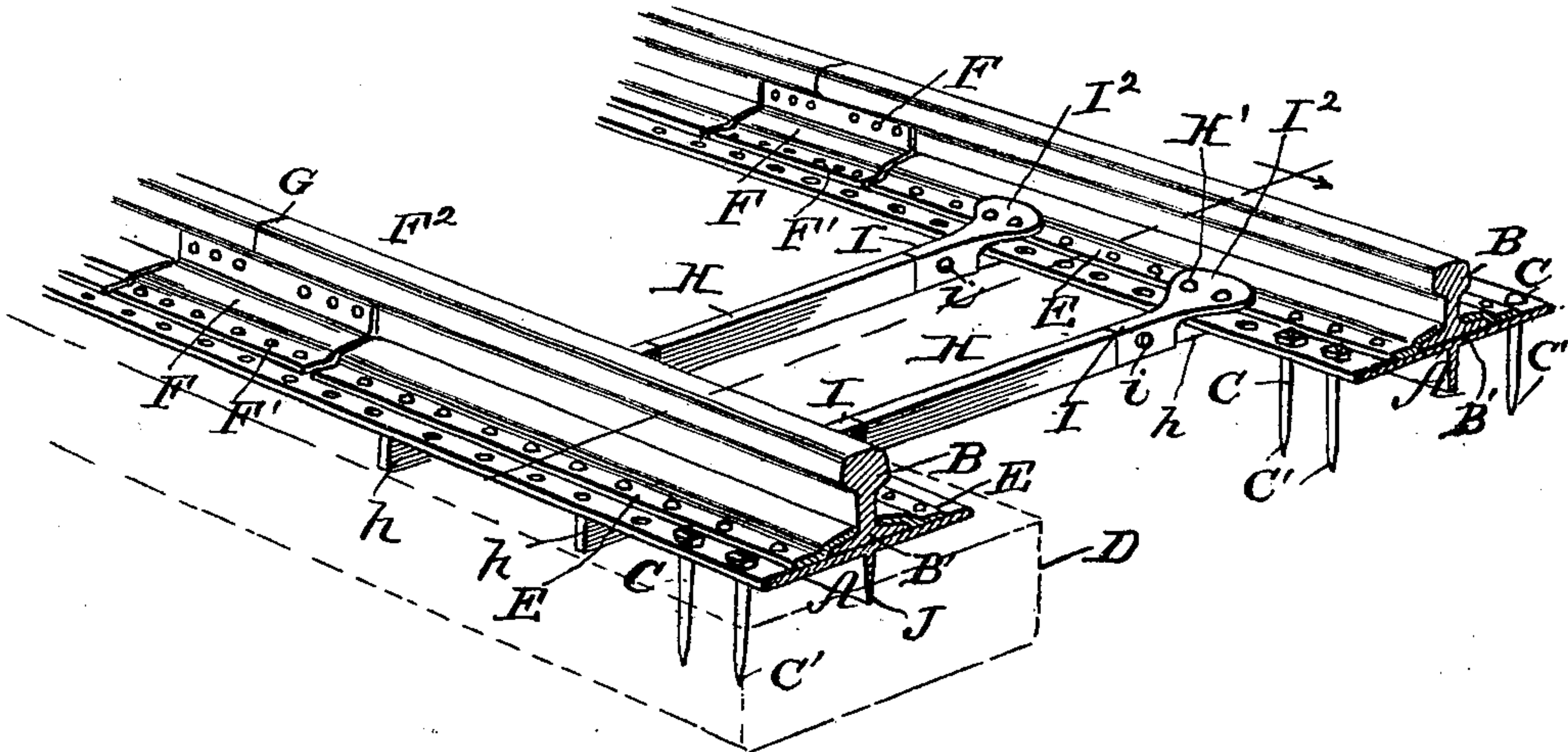


Fig. 2.

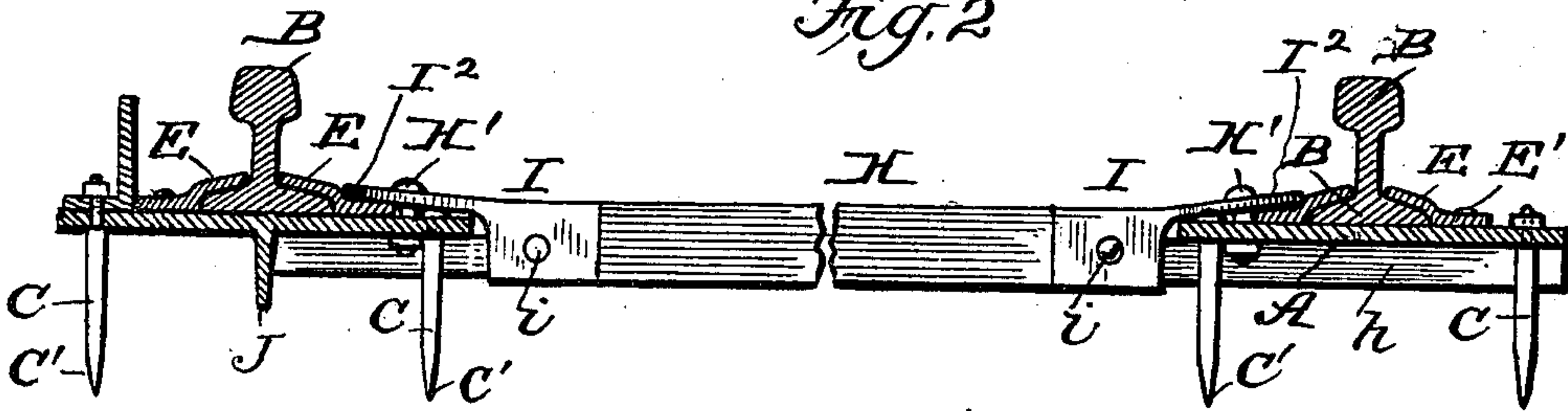
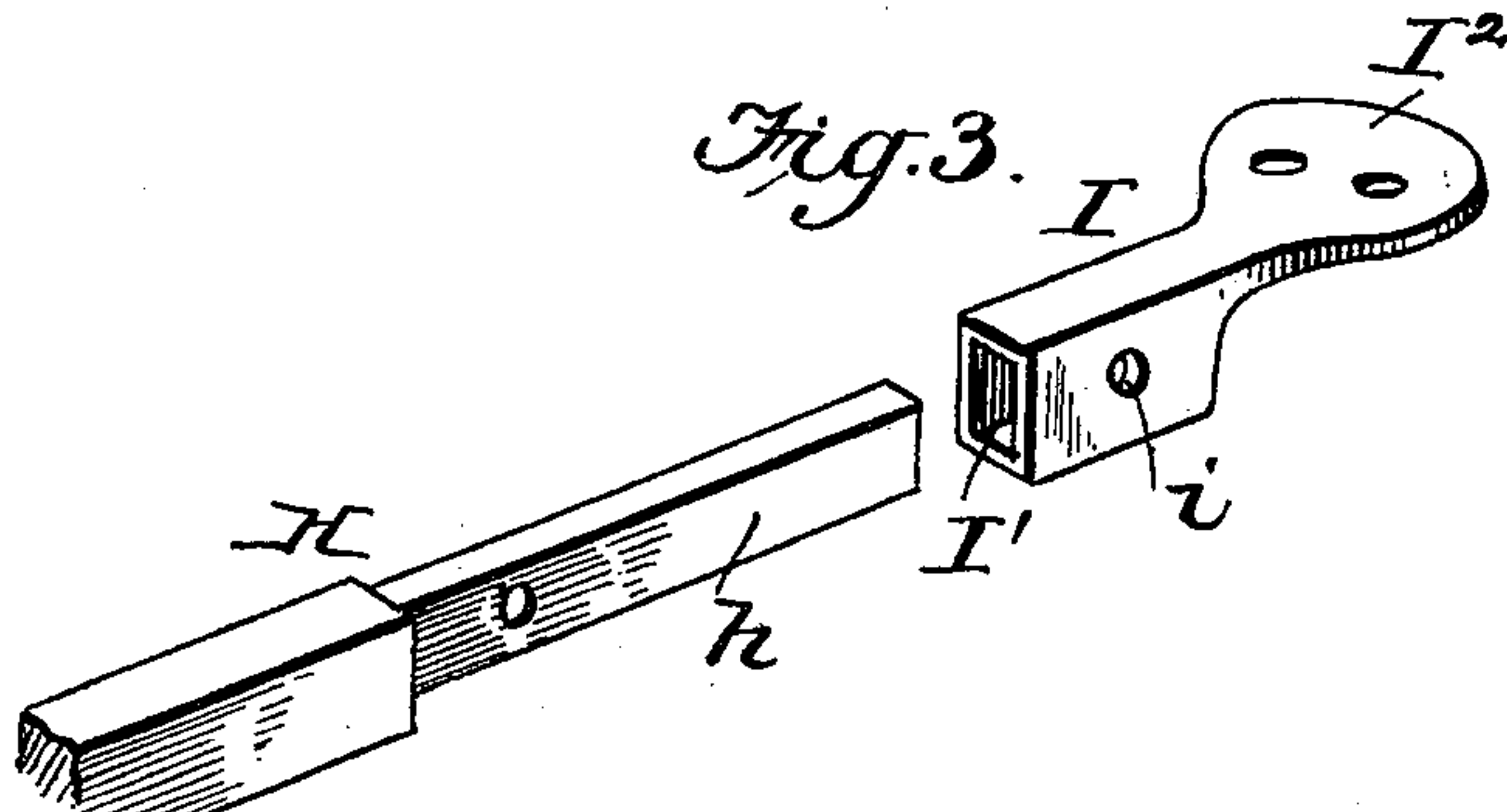


Fig. 3.



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## RAILROAD-TRACK.

SPECIFICATION forming part of Letters Patent No. 681,567, dated August 27, 1901.

Application filed April 23, 1901. Serial No. 57,130. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES HENRY McDERMOTT, of Duluth, in the county of St. Louis and State of Minnesota, have invented  
5 a new and useful Improvement in Railroad-Tracks, of which the following is a specification.

My invention is an improvement in railroad-tracks, and has for an object a simple,  
10 economical, and durable construction designed for use in place of the ordinary wooden cross-ties; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and  
15 claimed.

In the drawings, Figure 1 is a perspective view of a section of track embodying my invention. Fig. 2 is a cross-section on about  
20 line 2 2 of Fig. 1; and Fig. 3 is a detail view of a portion of the tie-bar, one of the end sections being shown detached.

As shown, the track includes sleepers A in the form of flat plates, of steel, iron, or other suitable metal, such plates being preferably flat and of sufficient width to form a  
25 broad bearing upon the ground or other bed. Ordinarily it will be sufficient to make the plates of a width about three times that of the base B' of the rail B. The plates A may  
30 be made of any suitable length and for use on curves may be formed to coincide with the curvature of the rail. It will be also understood that the length, width, and thickness of the sleeper-plates may be made to suit the  
35 road on which they are to be used. I provide the plates A with depending teeth or pins C to enter the ground or other road-bed, such pins being preferably pointed at C'. By preference the teeth C are arranged in rows extending longitudinally of the plates A near  
40 their edges. The purpose of these pins is to keep the sleeper-plates in position, and in case it is desired to employ wood beneath the plates A, as shown by dotted lines D in Fig. 1, the teeth will penetrate such wood and serve to keep it in place. It should also be understood that the teeth entering and being kept cool by the earth assist in preventing the expansion of the sleeper-plates. The rails  
50 B are secured upon the sleeper-plates. This I accomplish by means of the rail-holding plates E, bolted at frequent intervals at E' at

their outer edges to the plate and overlapping at their inner edge the base B' of the rail, as best shown in Figs. 1 and 2. These  
55 plates E extend nearly to the joint of the rails, and between the ends of the plates I provide the joint-plates F, which lap the joints G and are bolted at F' to the sleeper-plates and at F<sup>2</sup> to the rails, as shown in Figs. 1 and  
60 2. The tie or connecting rods H extend between the opposite sleeper-plates A and are firmly secured thereto by bolting, as shown at H'. In the specific construction shown the rods H are composed of metal bars set ver-  
65 tically edgewise and fitting and bolted at i' in sockets I' in the inner ends of brackets I, which are formed with broadened heads I<sup>2</sup>, which spread out over the sleeper-plates and are bolted thereto at H' and extend up over  
70 and lap upon the rail-holding plates E, as shown. The bar H fits in the sockets I' of the brackets I and extends outwardly at h beneath the sleeper-plates, usually to the outer edges thereof, as shown. The tie-bars  
75 operate to hold the opposite sleeper-plates in position and prevent any spreading of the rails. By this invention I avoid the necessity of using spikes, as all the parts are bolted  
80 together.

It will be understood that in swampy country, where there is danger of the track heaving, the sleeper-plates may be bolted at intervals to what is known in railroad building as a "dead-man," being a log or piece of timber  
85 sunk in the ground. Also in mountainous country and on curves a dead-man could be employed to prevent the track from sliding or spreading.

A track constructed as shown and before  
90 described will be durable and last a long time and will not need much repairing.

The sleepers A are provided on their under sides with longitudinal plates J, arranged at their middles and operating to strengthen the  
95 sleeper and prevent its lateral movement when resting on the ground. I also provide at K an upright guard-plate by which to prevent derailment in case the wheels should leave the rail, being especially useful on  
100 bridges. I prefer to provide the plate K with a base-flange K', held to the sleeper by the nuts receiving the pins C.

Having thus described my invention, what



I claim as new, and desire to secure by Letters Patent, is—

1. The herein - described improvement in railroad-tracks comprising the broad flat  
5 sleeper-plates provided at their opposite edges with rows of depending teeth, the rails on said plates, the rail-holding plates and rail-joint plates bolted at one edge to the sleeper-plates and lapped at the other edge upon the  
10 bases of the rails, and the tie connections composed of the cross-bars extending beneath the opposite sleeper-plates and the end brackets socketed to receive and bolted to said cross-bars and having flattened portions lapped  
15 upon the sleeper and rail-holding plates and secured substantially as set forth.

2. The combination of the sleeper-plates, the cross connection having end brackets provided with portions lapping upon the said  
20 plates and with sockets, and the bar held in said sockets and extending beneath the sleeper-plates substantially as set forth.

3. The combination of the broad flat sleeper-

plate provided with depending teeth or pins and the cross connection composed of the socketed end brackets having portions lapped  
25 upon and secured to the sleeper-plates and the bar held in the sockets of the end brackets and extending beneath the sleeper-plates substantially as set forth.

4. In a track substantially as described, the combination, of the sleeper-plates, means for securing the rails thereon, the cross connection having tie-bars, and brackets provided  
30 with sockets to fit the said cross-bars, and with top plates to lap upon the sleeper-plates, the cross-bar being extended beyond the socketed portions of the brackets and beneath  
35 the top plates thereof, whereby the sleeper-plates will lie between the top plates of the bracket and the extended ends of the cross-  
40 bar, substantially as set forth.

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