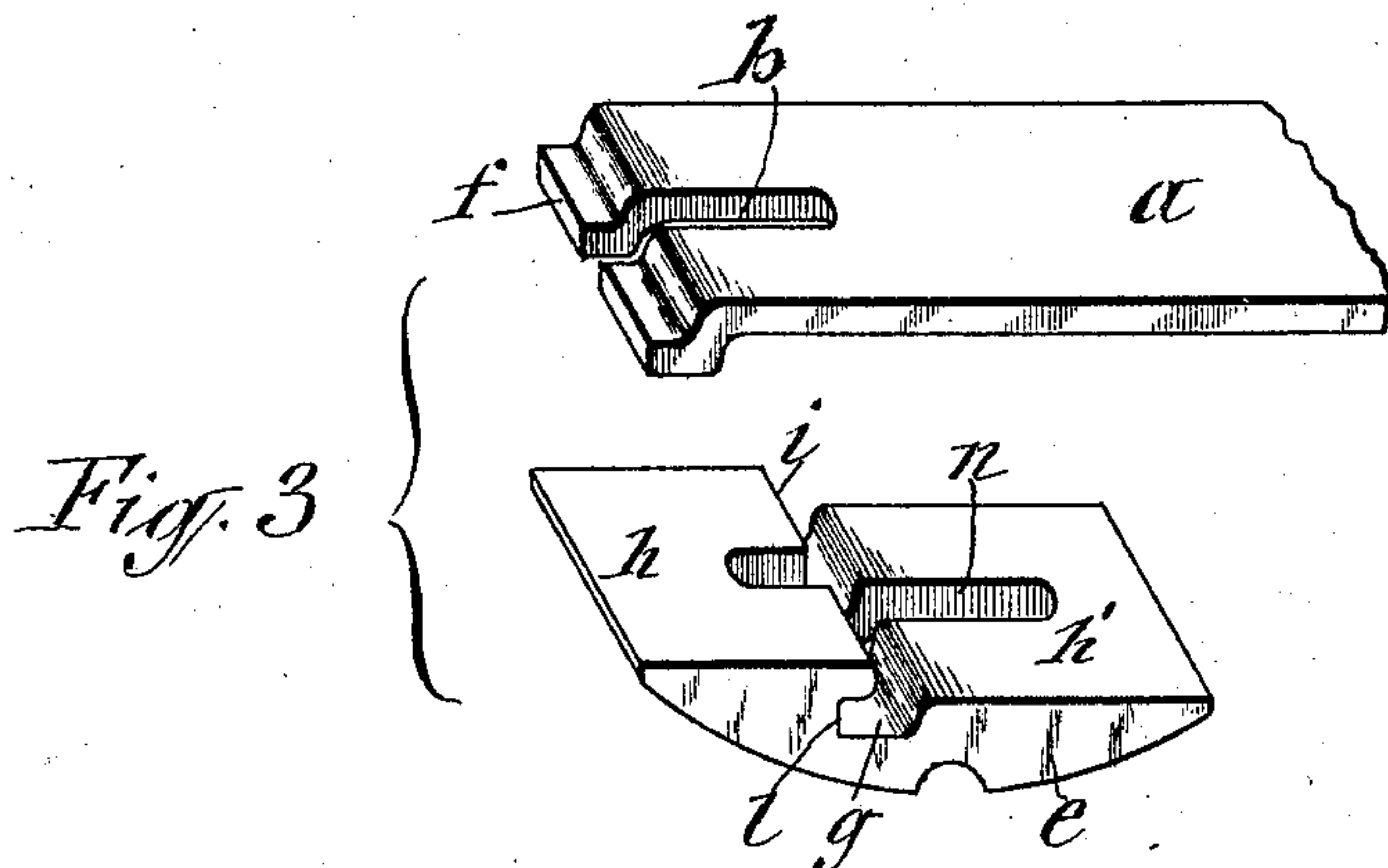
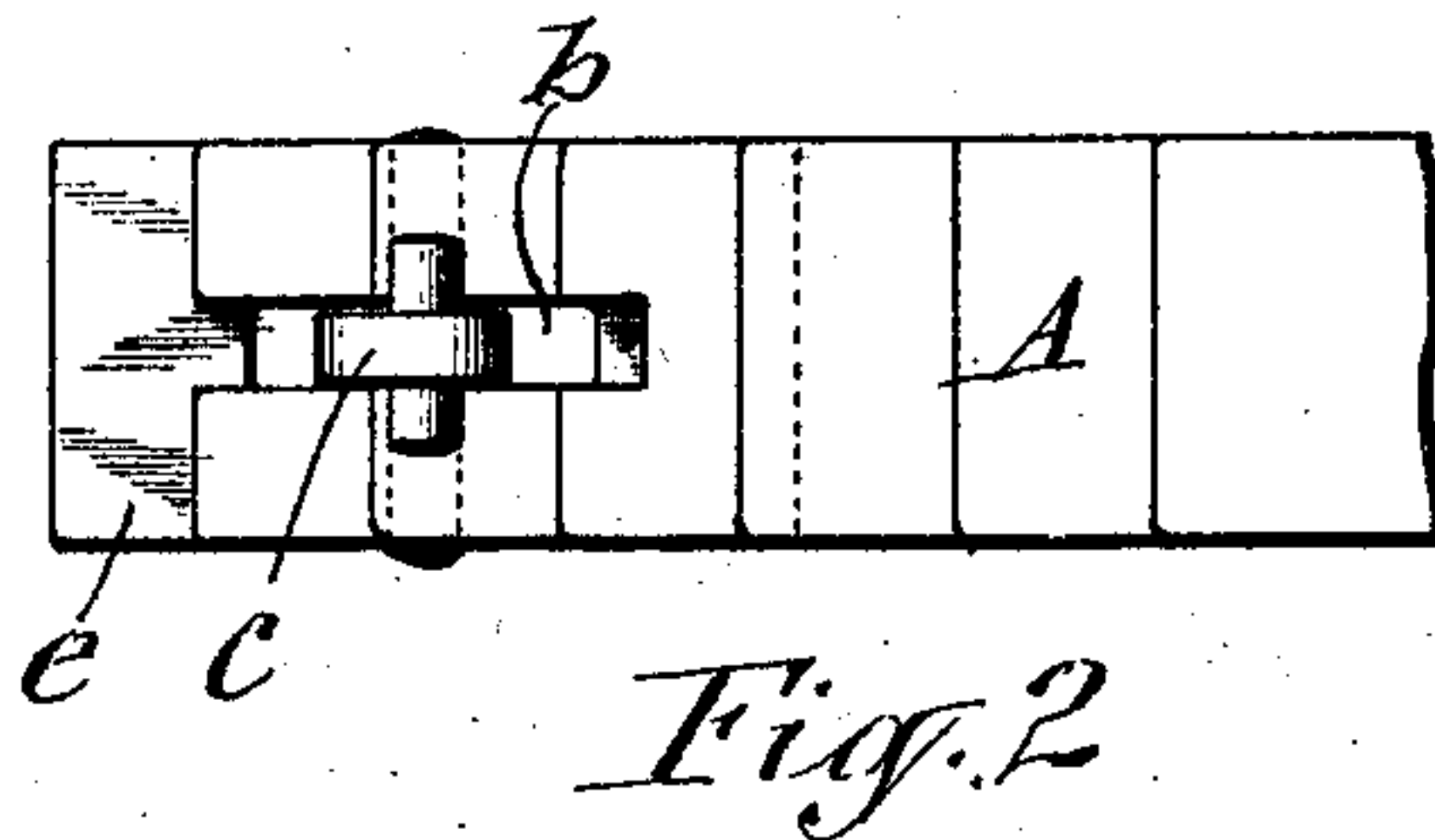
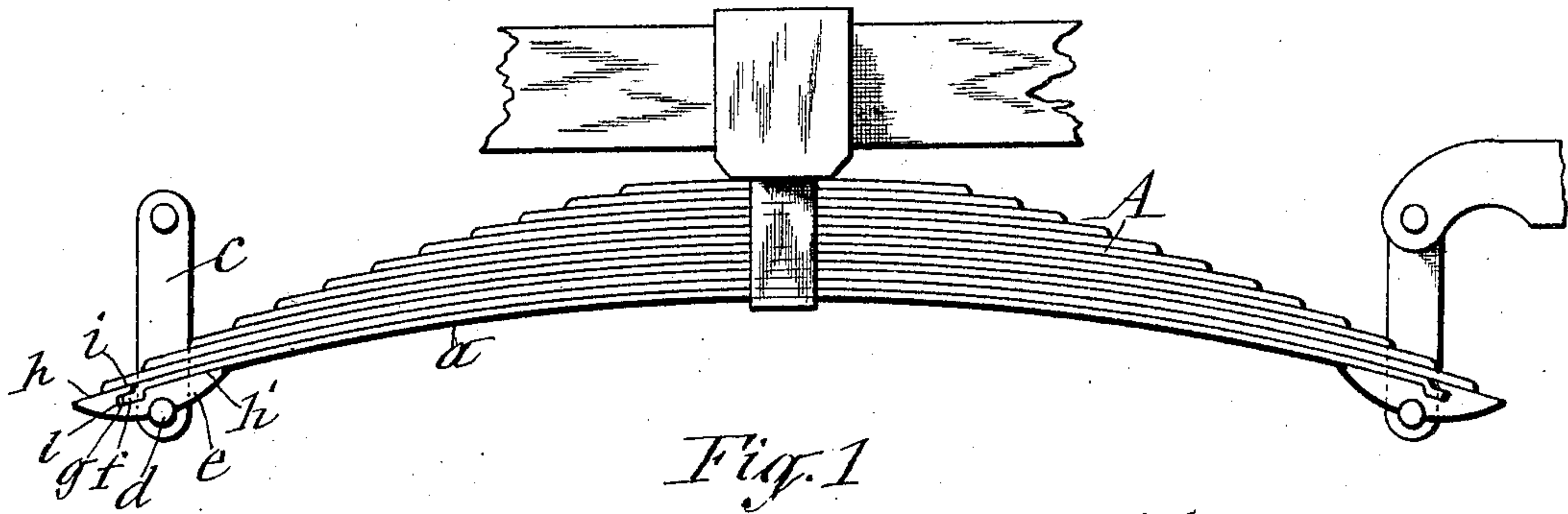


No. 775,554.

PATENTED NOV. 22, 1904.

J. CARROLL.
END PLATE FOR SPRINGS.
APPLICATION FILED NOV. 24, 1902.

NO MODEL.



WITNESSES:

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END PLATE FOR SPRINGS.

SPECIFICATION forming part of Letters Patent No. 775,554, dated November 22, 1904.

Application filed November 24, 1902; Serial No. 132,560. (No model.)

To all whom it may concern:

Be it known that I, JOHN CARROLL, a citizen of the United States, and a resident of Oswego, in the county of Oswego, in the State of New York, have invented new and useful Improvements in End Plates for Springs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of semi-elliptic or analogous springs used on trucks of locomotives and cars.

The object of the invention is to provide said springs with end bearings which shall be simple and inexpensive in construction and shall permit said bearings to be readily and conveniently applied to the ends of the spring and afford greater and stronger holds to their connection; and to that end the invention consists in the improved construction and combination of parts hereinafter described, and illustrated in the annexed drawings, in which—

Figure 1 is a side elevation of a spring equipped with my improved end bearings. Fig. 2 is a top plan view of the same, and Fig. 3 is an enlarged isometric view of the bearing-plate and adjacent end portion of the spring separated from each other.

Similar letters of reference indicate corresponding parts.

A represents the spring, which is composed of a series of leaves disposed lengthwise one upon the other and of successively-diminishing lengths. The ends of said spring are usually provided with vertical slots *b*, through which pass the hangers *c*, provided in their lower ends with transverse pins or keys *d* for supporting the ends of the spring.

My invention resides in the improved construction of the bearing-plates *e*, which are interposed between the keys *d* and end portions of the spring to protect the spring from contact with the aforesaid keys, and thus relieve the spring from wear and abrasion incident to such contact.

My improved construction of the bearing-

plate *e* and its connection with the spring is as follows: I maintain the bottom leaf or main leaf *a* to its full width throughout its length and depress the end of said leaf transversely and form said depressed portion with a horizontal tongue *f*, which extends across the entire width of the leaf, as shown in Fig. 3 of the drawings. The bearing-plate *e* I form with two parallel planes *h h'*, constituting two bearings, each of which extends uniformly across the entire width of the plate. In the offset *i* between the two planes is an undercut groove *l*, extending the entire length of the offset and through the sides of the plate to form an entrance *g* for the tongue *f* into the groove *l* through the side of the plate, and thus couple the plate *e* to the spring by sliding one of said parts laterally upon the other. The object of extending the interlocking portions of the spring and its bearing-plate completely across said parts is to facilitate the manufacture thereof.

The hanger *c*, passing through the slots *b* in the spring and through the slot *n* in the plate *e*, serves to prevent lateral displacement of said plate on the spring.

It will be observed that my invention obviates the necessity of tilting either the spring or the bearing-plate *e* endwise to effect the coupling of said parts, and the interlocking tongue and groove of said coupling are extended across the entire width of the spring and bearing-plate and are thus of maximum length and of correspondingly-increased strength. In addition to this my invention possesses great simplicity of construction and reduces the cost of its manufacture accordingly.

What I claim as my invention is—

1. In a semi-elliptic or analogous spring, the combination of the main leaf having its end formed with a tongue extending across the leaf and in a different plane, the adjacent leaf having its end portion extending over said tongue, and a plate formed with two bearings in different planes, each of which receives the end portion of one of said leaves as set forth.

2. In a semi-elliptic or analogous spring, the main leaf formed with a depressed end, terminating in a tongue extending across the entire width of the leaf, in combination with
5 a bearing-plate formed with two parallel planes each extending uniformly across the entire width of the plate and an undercut groove in the offset between the two planes
extending through the sides of the plate and receiving the aforesaid tongue through the 10 end of the groove as set forth.

JOHN CARROLL. [L. s.]

Witnesses:

JOSEPH MORAN,
CHAS. CARROLL.