

No. 862,102.

PATENTED JULY 30, 1907.

N. E. PARISH.

CARLINE.

APPLICATION FILED NOV. 8, 1905.

Fig. 3.

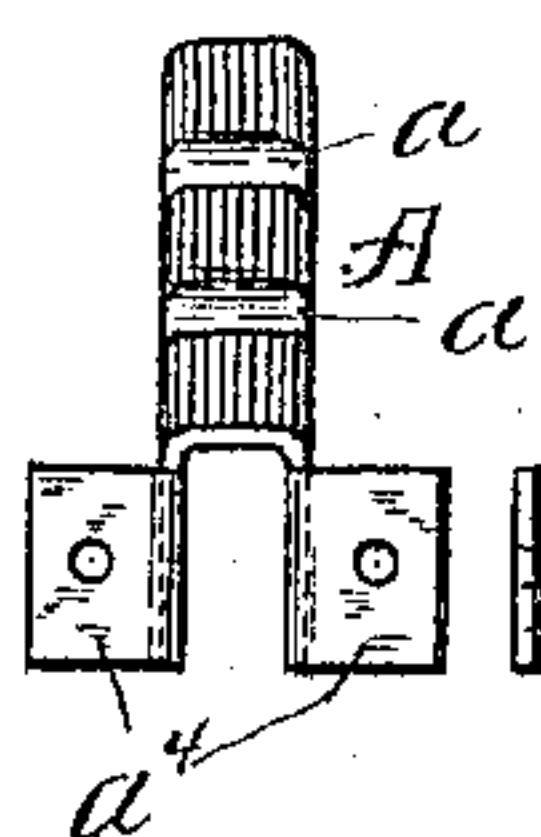


Fig. 1.

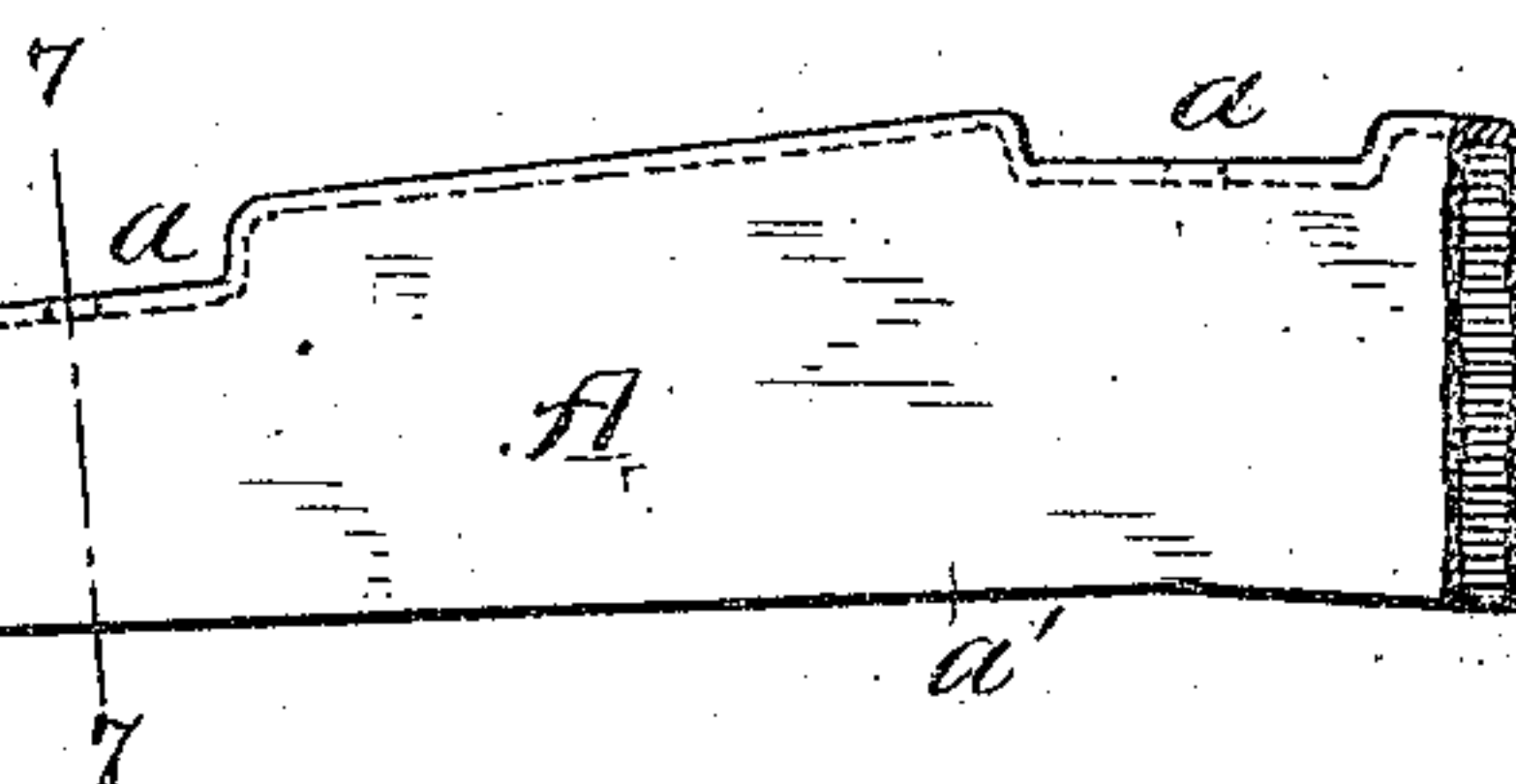


Fig. 2.

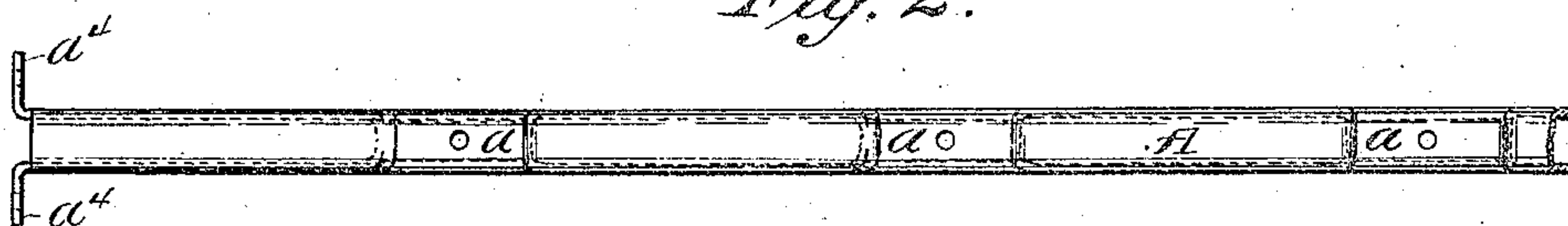


Fig. 4.

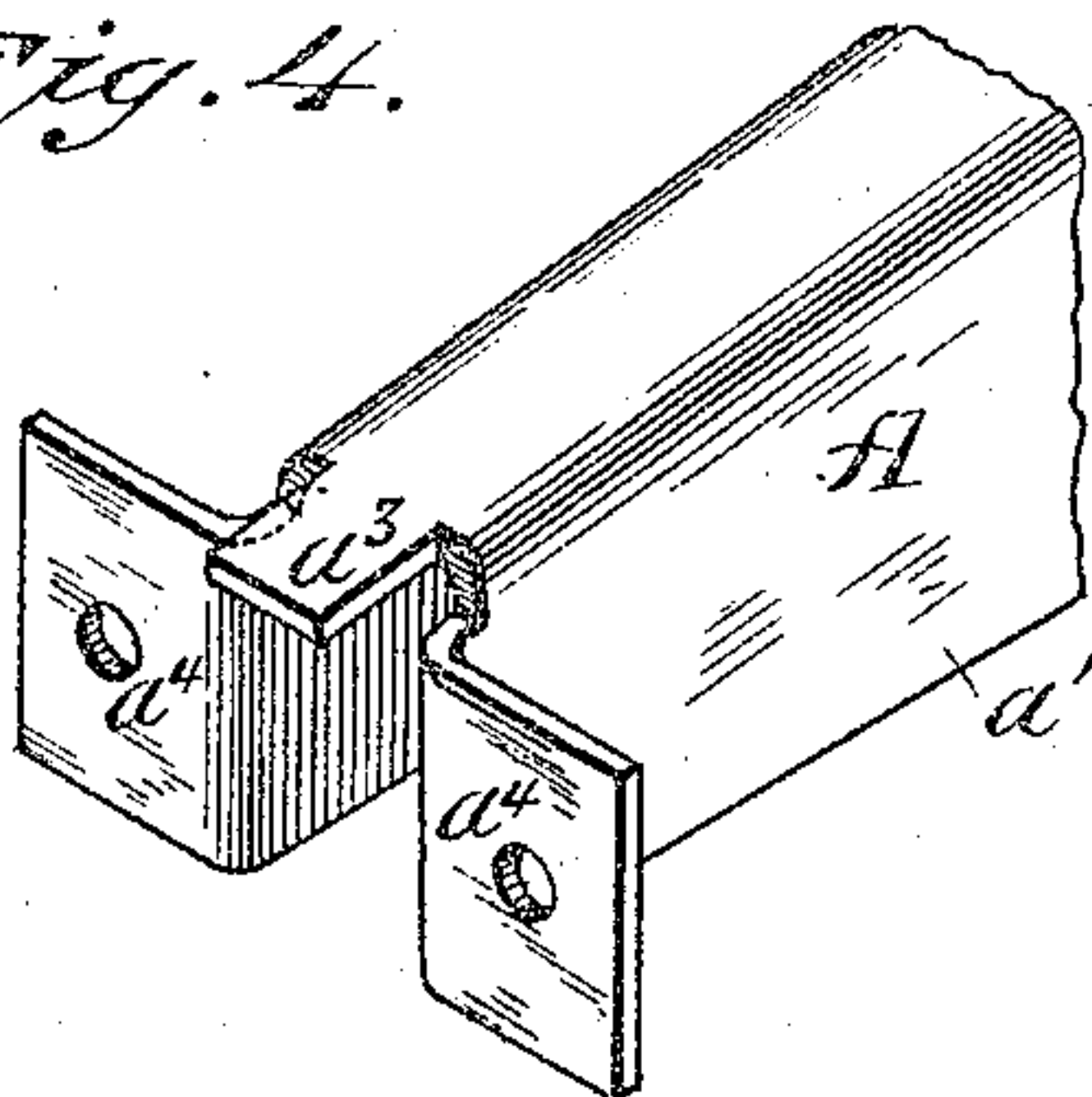


Fig. 5.

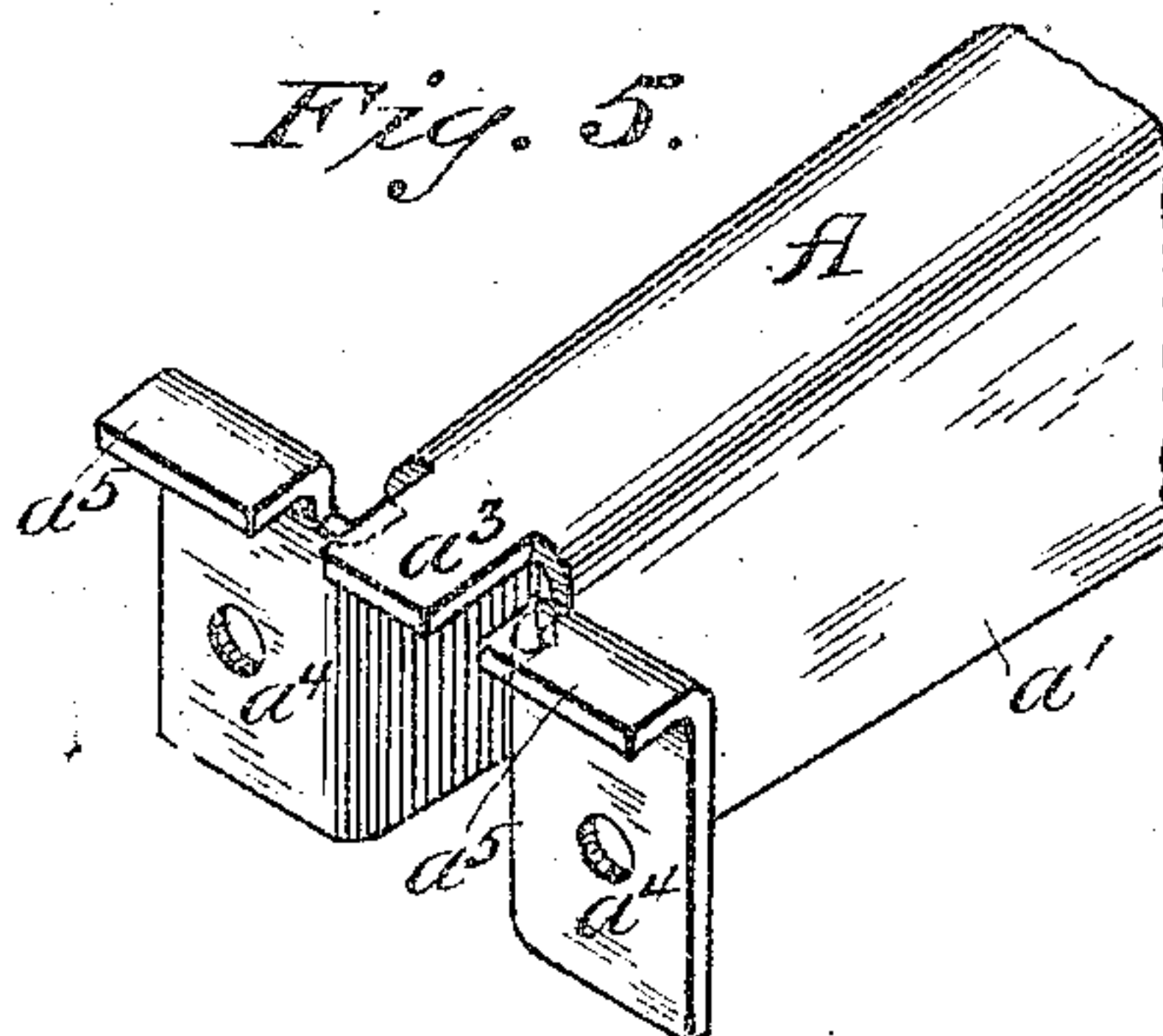


Fig. 7.

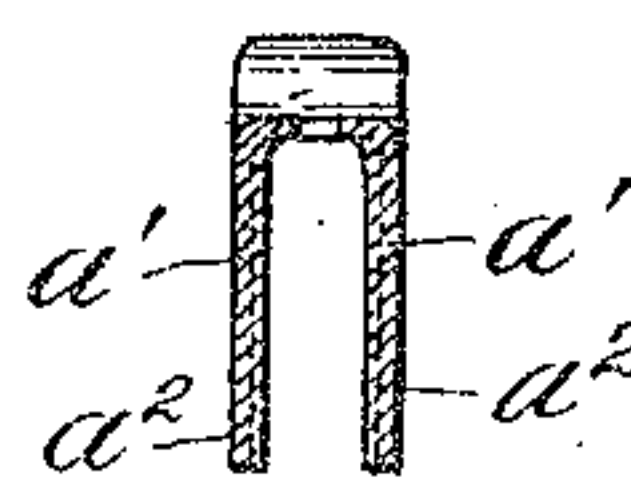
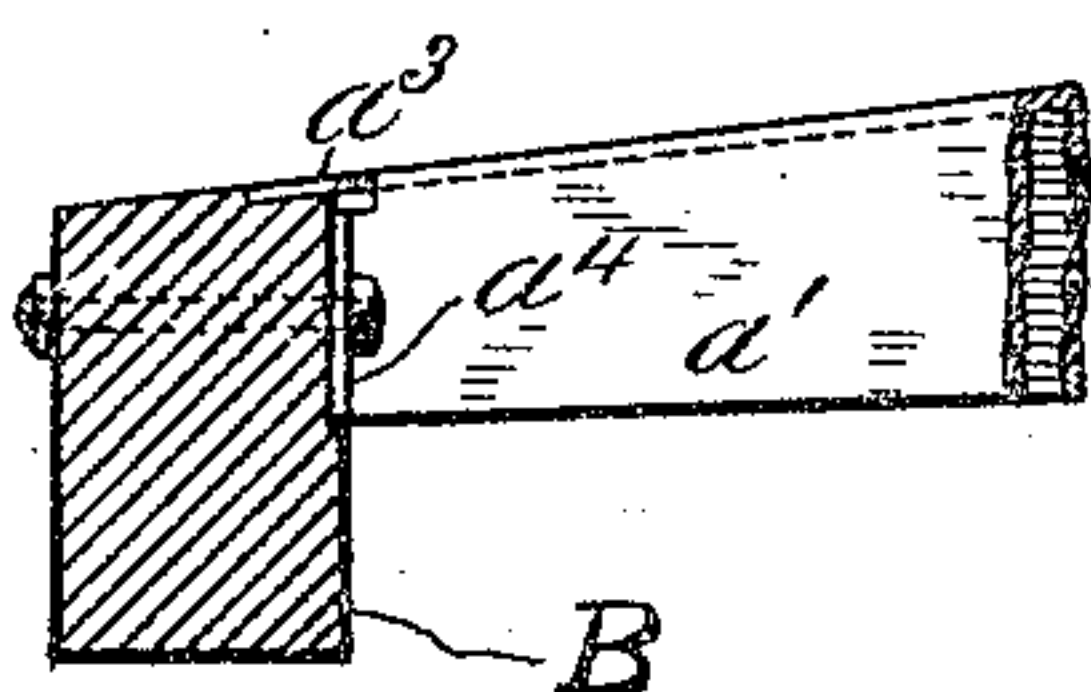


Fig. 6.



WITNESSES:

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CARLINE.

No. 862,102.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed November 8, 1905. Serial No. 286,335.

To all whom it may concern:

Be it known that I, NEFF E. PARISH, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Carlines, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to carlines for supporting the roof-purlins of box cars, and its object is to provide a carline having the least possible depth, at the same time having the necessary resistance to flexure and also being economical in its construction.

The said invention consists of means hereinafter fully described and particularly set forth in the claims.

The annexed drawing and the following description set forth in detail certain means embodying the invention, said disclosed means constituting but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—Figure 1 represents a side elevation of a part of a carline embodying my invention. Fig. 2 represents a plan of the same. Fig. 3 represents an end elevation of the said carline. Fig. 4 represents, on an enlarged scale, a perspective view of one end of a modified form of said carline, and Fig. 5 represents a similar view of one end of a second modified form thereof. Fig. 6 represents a side elevation of one end of one form of the carline, together with a vertical section of one of the side plates of the car, this view illustrating the relative location of such carline and side plate. Fig. 7 represents a cross section of one form of the carline taken upon the plane indicated by line 7—7, Fig. 1.

My improved carline A is struck up, cold-pressed, by means of suitable dies and punches, from a single piece of sheet steel of uniform thickness, to form a cross section of inverted U-shape. In the top or closed portion of the carline are formed a number of depressions or recesses *a* for receiving the roof-purlins, and the side members *a'* *a'* are vertical, parallel with each other and their outer lateral surfaces *a²* *a²*, Figs. 2 and 7, lie in the extreme lateral planes of the carline and form such planes. The dies and punches used for forming the carlines are so formed as to allow the excess of metal in the side members, which is obtained when the depressions *a* are formed, to flow inwardly and thicken that part thereof which is intermediate of the depressions and the lower edges of the carline, as shown in Fig. 7.

Such structure gives an increased resistance to flexure at these parts of the structure and strengthens that part which would otherwise be weaker than would be desirable. By means of such construction the carline may be designed in accordance with the laws governing the construction of trusses and substantially the required strength obtained in all vertical planes, as de-

termined by such laws. By allowing the metal to flow inwardly the outer lateral surfaces of the carline remain flat and enhance the general appearance of the structure. In the form shown in Fig. 4, each extremity of the carline is provided with a longitudinally projecting lip *a³* and two laterally extending wings *a⁴* *a⁴*, the lip *a³* resting preferably in a suitable recess formed on the top surface of the side plate B of the car and the wings *a⁴* *a⁴* being secured thereto by means of bolts *c* passing through holes in said wings and through said plate, as shown in Fig. 6. In the simple form shown in Figs. 1 to 3, the lip *a³* is omitted. The structure may be further modified by supplying the top of each wing *a⁴* with a projecting lip *a⁵*, such lips also resting preferably in suitable recesses formed in the top surface of the side plate. The simple form shown in Fig. 1 may be ordinarily used, as it has been found that under ordinary conditions the lips *a³* and *a⁵* are unnecessary.

Having thus described my invention in detail, that which I particularly point out and distinctly claim is:

1. As a new article of manufacture, a carline formed of an integral piece of sheet metal and of inverted U-shaped cross-section, provided with recesses in its top portion for receiving the roof-purlins, that portion of the metal of the side members of the carline intermediate of each of such depressions and the adjacent lower edge of the side members being of greater thickness than that of the main portion of such members.

2. As a new article of manufacture, a carline of inverted U-shaped cross-section having an extending lip or projection at the upper portion of each extremity and laterally extending wings adjacent to said projection, each wing provided at its upper portion with a lip or projection.

3. As a new article of manufacture, a carline struck up from an integral piece of sheet metal and of inverted U-shaped cross-section; the side-members of the carline being perpendicular and the top portion of the carline being provided with recesses for the reception of the roof-purlins; the metal of such side members which is intermediate of the said recesses and the bottom of the carline being of a thickness greater than that of the main portion of such side members; the outer surfaces of the latter forming the extreme lateral planes of the structure.

4. As a new article of manufacture, a carline struck up from an integral piece of sheet metal into a form having an inverted U-shaped cross-section, and having at the upper portion of each extremity an extending lip or projection and laterally extending wings adjacent to said projection, each wing being provided at its upper portion with a lip or projection; the side-members of the carline being perpendicular and the top portion of the carline being provided with recesses for the reception of the roof-purlins, the metal of such side-members which is intermediate of the said recesses and the bottom of the carline being of a thickness greater than that of the main portion of such side members; and the outer surfaces of the latter forming the extreme lateral planes of the structure.

Signed by me, this 30th day of October 1905.

NEFF E. PARISH.

Attest:

D. T. DAVIES,
E. L. BUCK.