

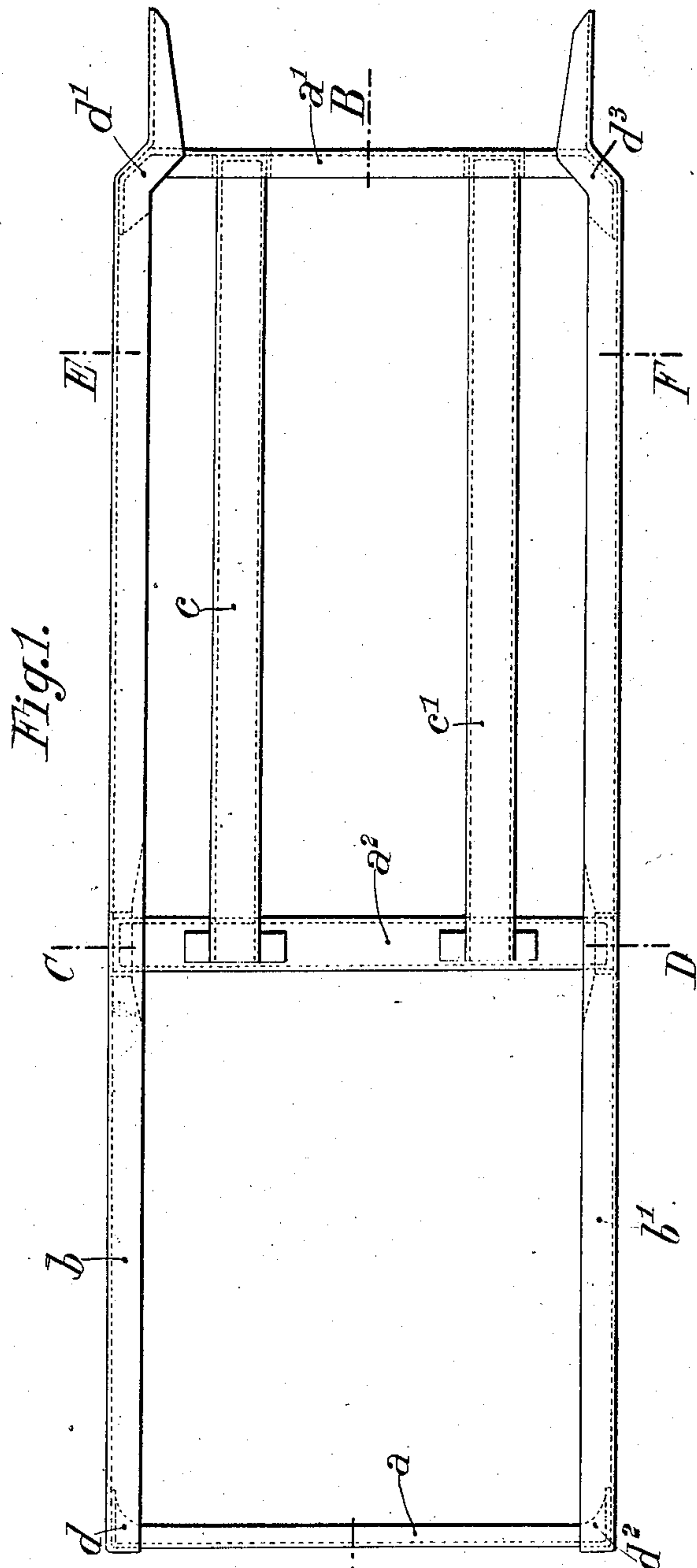
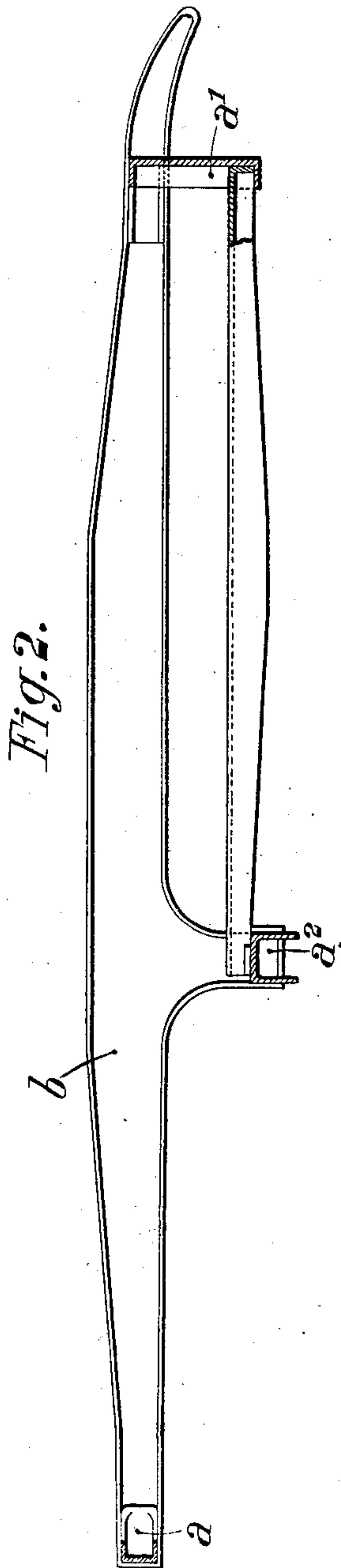
No. 742,272.

PATENTED OCT. 27, 1903.

P. ARBEL.
FRAME FOR MOTOR CARS.
APPLICATION FILED NOV. 10, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
James L. Norris, Jr.
C. D. Kesler,

Inventor
Pierre Arbel
By James L. Norris,
Atty.

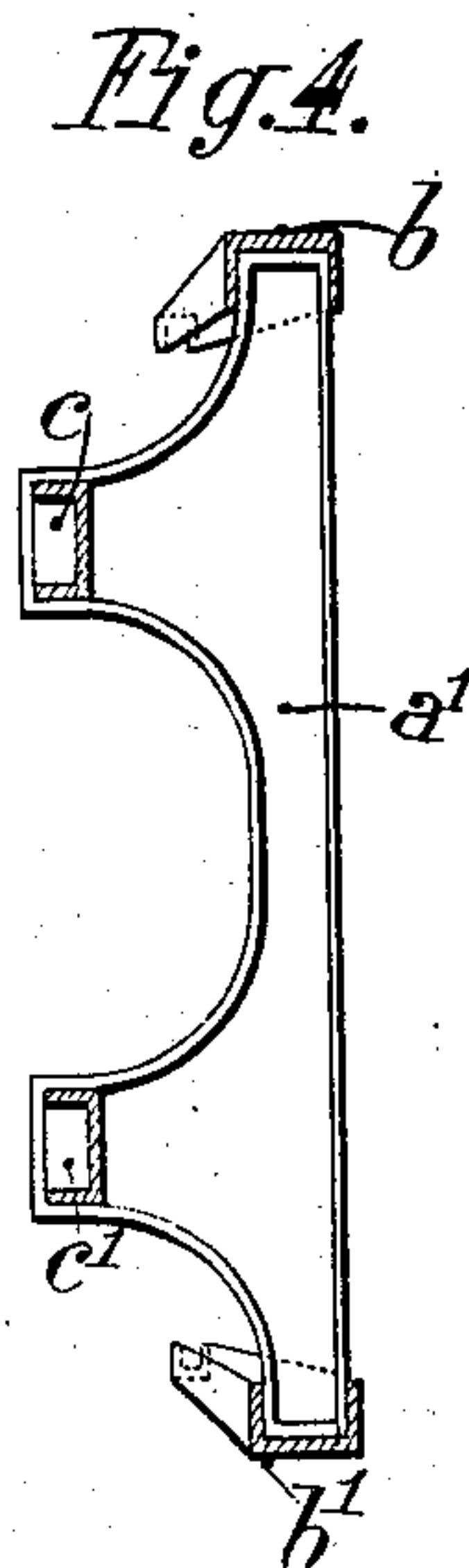
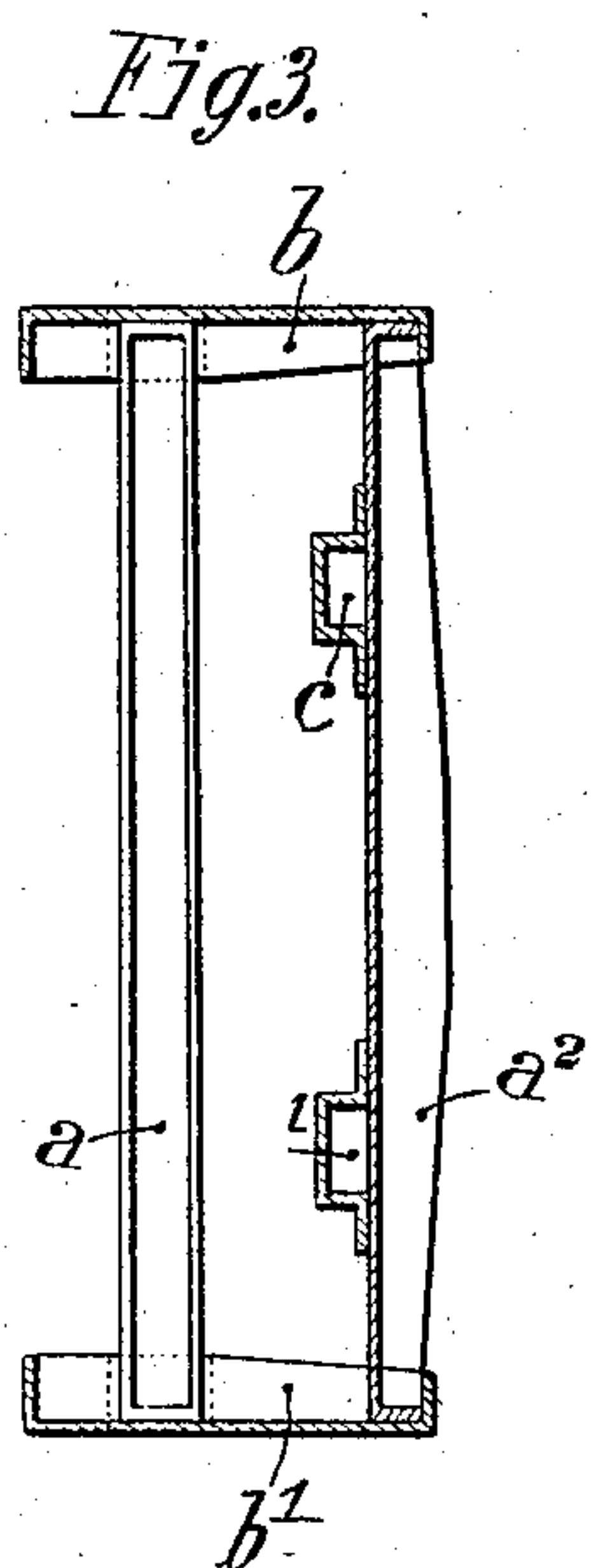
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

PIERRE ARBEL, OF PARIS, FRANCE, ASSIGNOR TO SOCIÉTÉ ANONYME DES FORGES DE DOUAI, OF PARIS, FRANCE.

FRAME FOR MOTOR-CARS.

SPECIFICATION forming part of Letters Patent No. 742,272, dated October 27, 1903.

Application filed November 10, 1902. Serial No. 130,798. (No model.)

To all whom it may concern:

Be it known that I, PIERRE ARBEL, engineer, a citizen of the French Republic, residing at 3 Rue Vignon, Paris, France, have invented certain new and useful Improvements in the Frames of Motor-Cars, of which the following is a specification.

This invention has for its object to provide for motor-cars frames of simple construction and of great strength.

The frames of motor-cars as heretofore constructed usually consist of angle-iron bars connected together by gussets, welding, or by screw-bolts or rivets, and the parts thus connected were liable to become detached in a very short time, as in consequence of the violent vibrations to which the cars were subjected the welds became rapidly crystalline and separated and screw-threads quickly became worn. With the view of remedying these defects and of making better connections between the parts extra thickness of metal has been employed; but this only added weight to the frames without increasing the strength of the connections.

According to this invention the frames of motor-cars are formed of channeled, trough-shaped, or flanged plates or bars, (which are stamped or pressed,) the ends of which are closed. The plates or bars are connected together by forcing the end or ends of one channeled or flanged plate or bar into the channel or channels of another plate or bar or other plates or bars, so that the said plates or bars thus connected support each other by their flanges, and in order to more securely retain the parts thus connected in position they may be riveted together.

In order that my invention may be clearly understood, I will describe it with reference to the accompanying drawings, of which—

Figure 1 shows a plan of a frame. Fig. 2 is a section through the line A B of Fig. 1. Fig. 3 is a section through the line C D of Fig. 1 seen from the right-hand side. Fig. 4 is a section through the line E F of Fig. 1.

Figs. 1 and 2 show the fore and end cross-

bars $a a'$, which are forced between the flanges of the main supports $b b'$, having a projection in which the intermediate cross-bar a^2 is forced. The Drawing 4 shows also the manner in which the longitudinal sleepers $c c'$ are supported on the cross-bar a' and the intermediate cross-bar a^2 . Figs. 1, 2, and 4 show that the ends of the cross-bar a' are forced between flanges of the main supports $b b'$ and that the longitudinal sleepers $c c'$ are secured at one end to the cross-bar a' , which has for this purpose two projections, and that they rest at their other end on the intermediate cross-bar, to which they are secured by means of lugs. The angles of the framing are strengthened by means of projections $d d' d^2 d^3$ at the ends of the main supports or of the cross-bars, these projections being produced by stamping or pressing, and thus dispensing with auxiliary fastening-pieces, the frame being there only constituted with the essential pieces.

The frames constituted with stamped or pressed bars or plates, as hereinbefore described, may have various constructive forms to suit the various kinds of motor-cars.

Having now described my invention and in what manner the same may be performed, I declare that what I claim is—

A frame for motor-vehicles, consisting of flanged side bars, said side bars being bent toward one another on an angle at one end of the frame, flanged end bars forced between said side bars, one of said end bars bearing against the bent portion of said side bars, flanged cross-bars forced between said side bars, and a plurality of longitudinal bars or sleepers forced between one of said cross-bars and the end bar which bears against the bent portions of said side bars.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PIERRE ARBEL.

Witnesses:

AUGUSTUS E. INGRAM,
EMILE KLOTZ.