

No. 720,923.

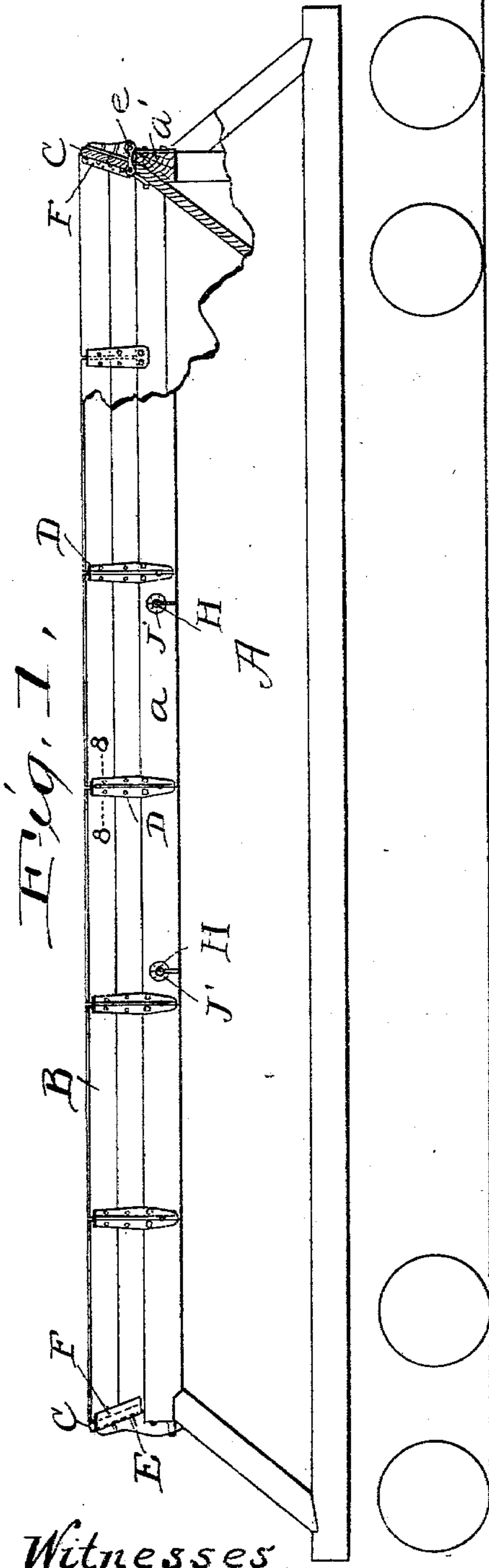
PATENTED FEB. 17, 1903.

F. S. INGOLDSBY.
EXTENSION TOP FOR CAR BODIES.

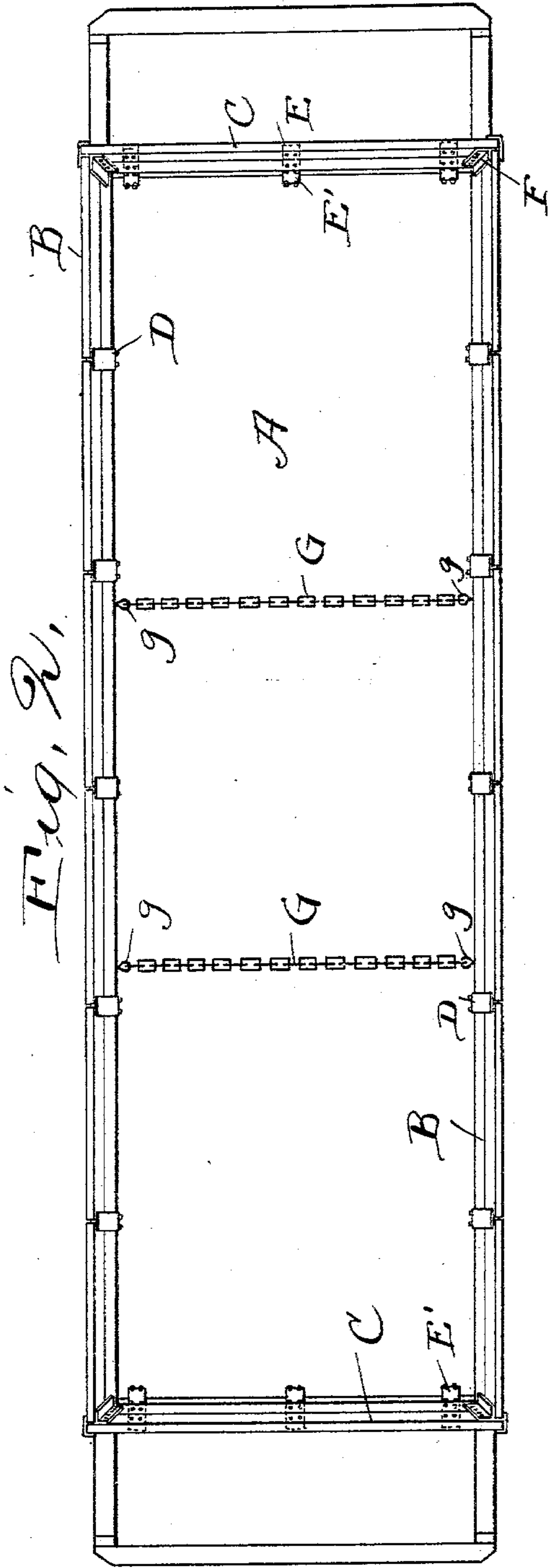
APPLICATION FILED MAR. 27, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.
E. B. Gilchrist
F. D. Ammen



Inventor: { Frank S. Ingoldesby,
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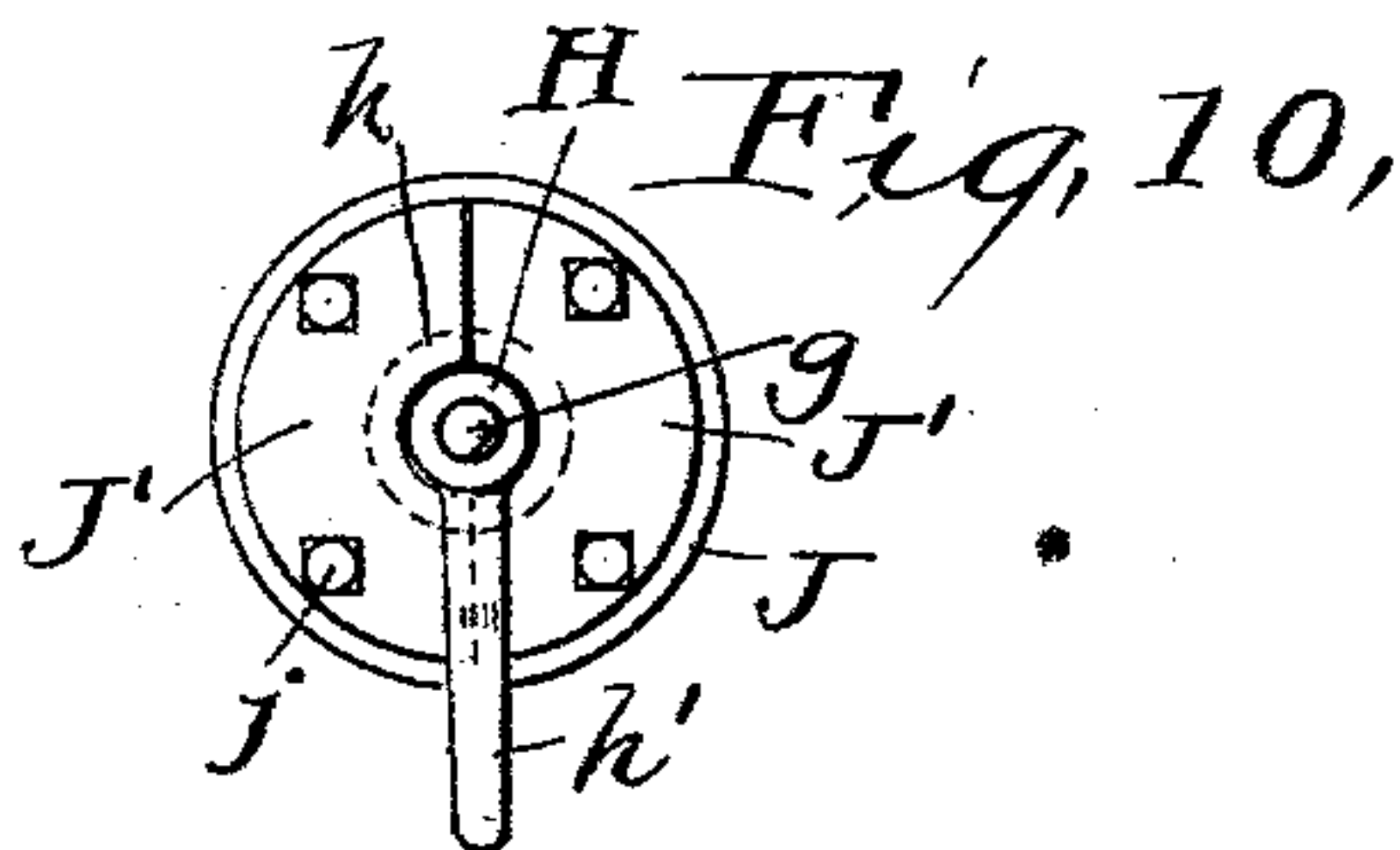
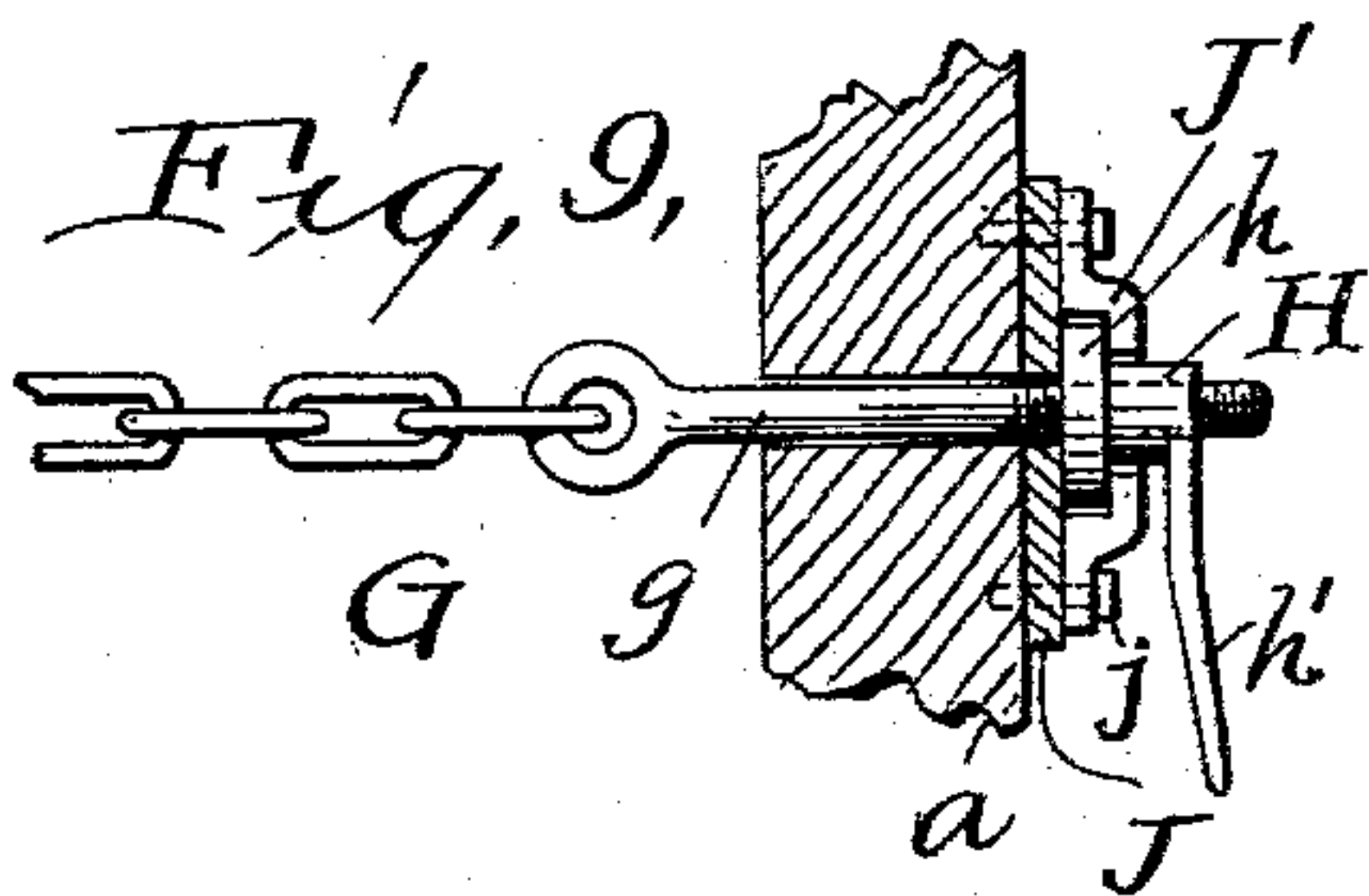
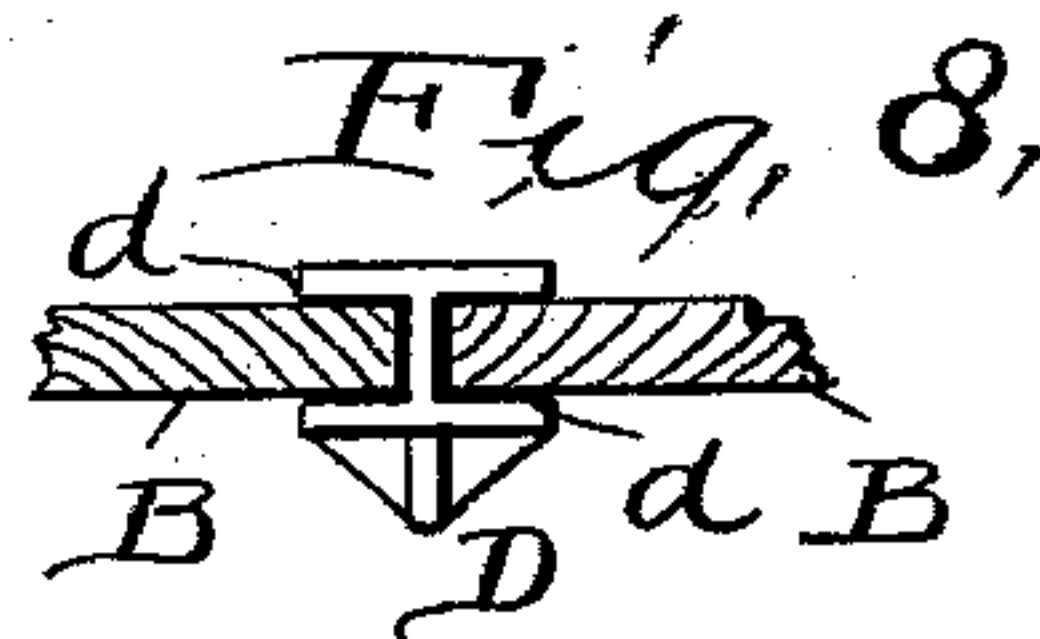
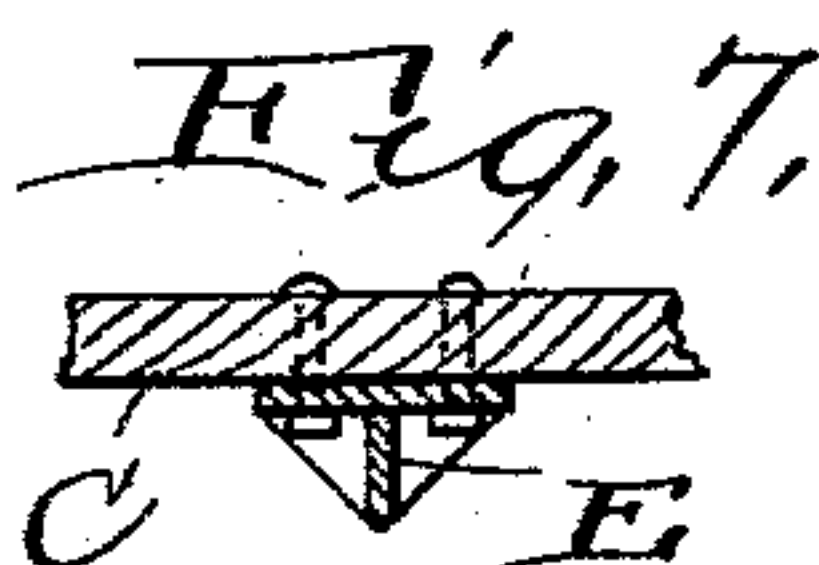
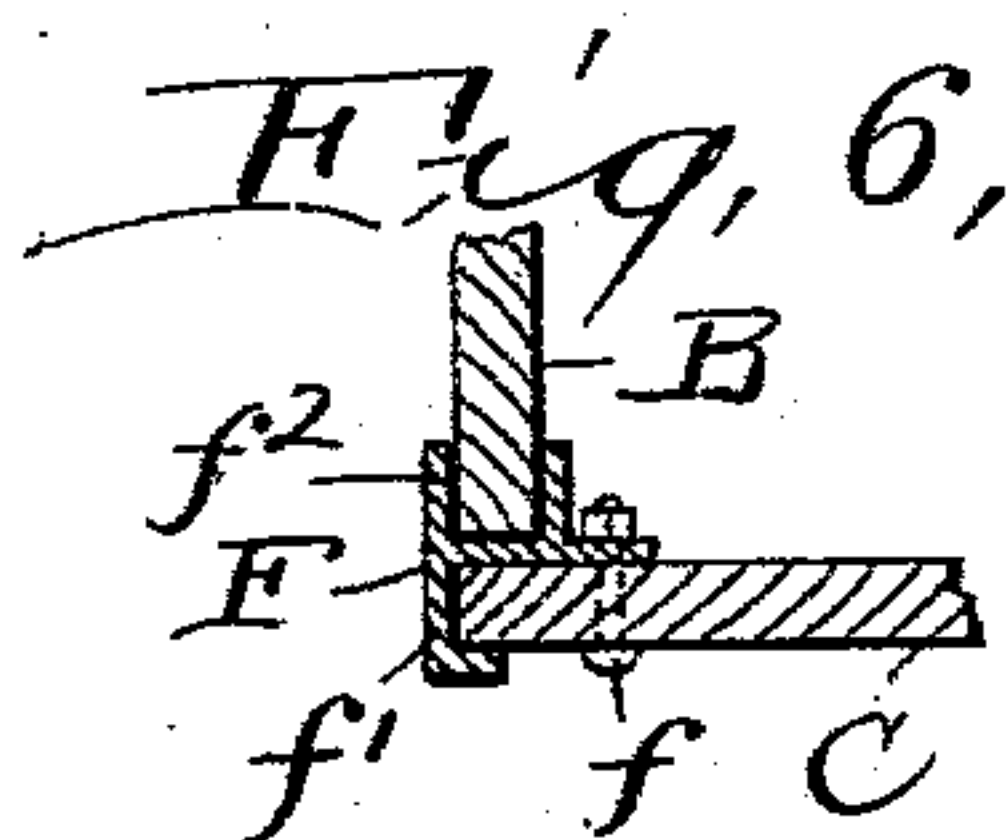
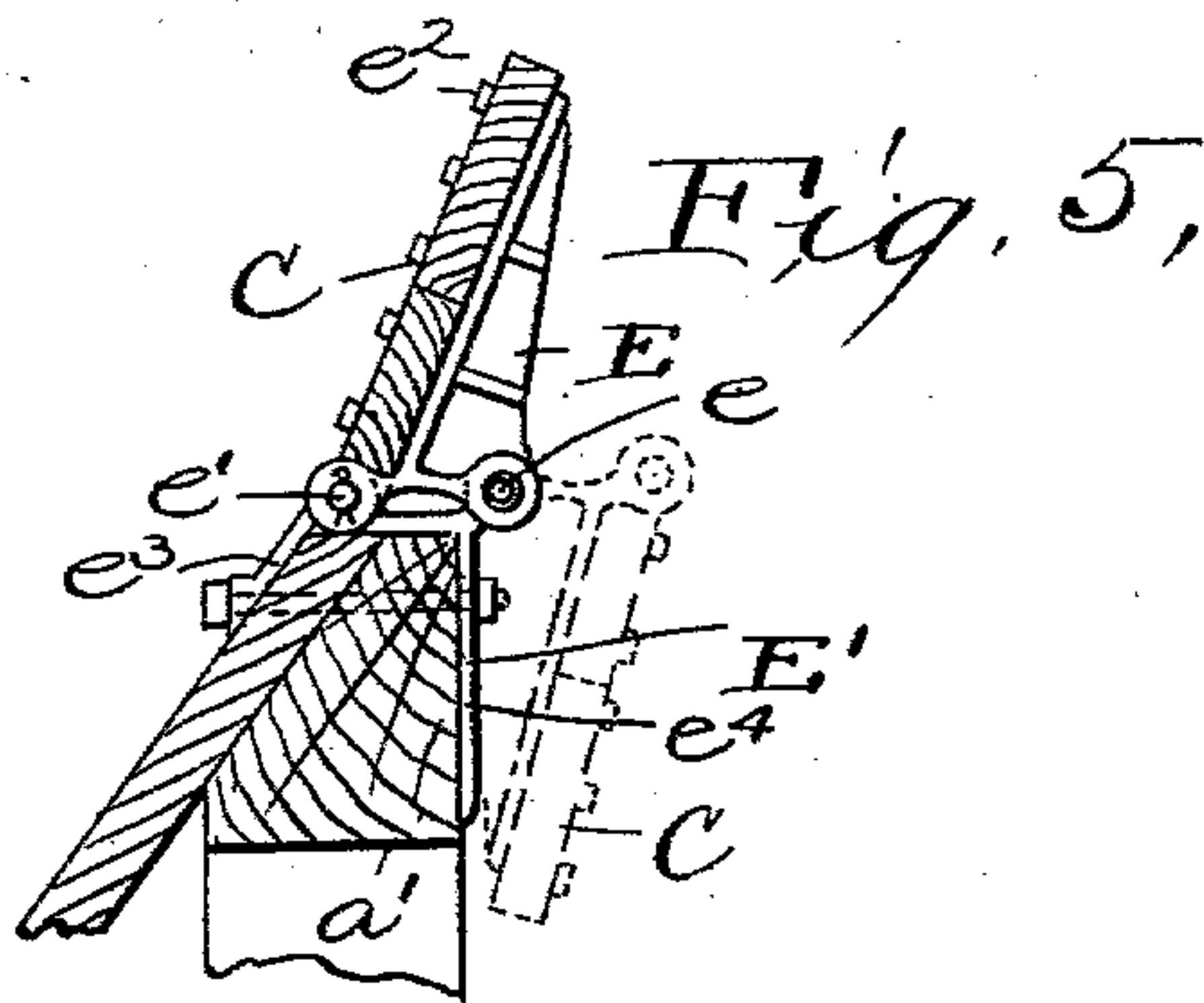
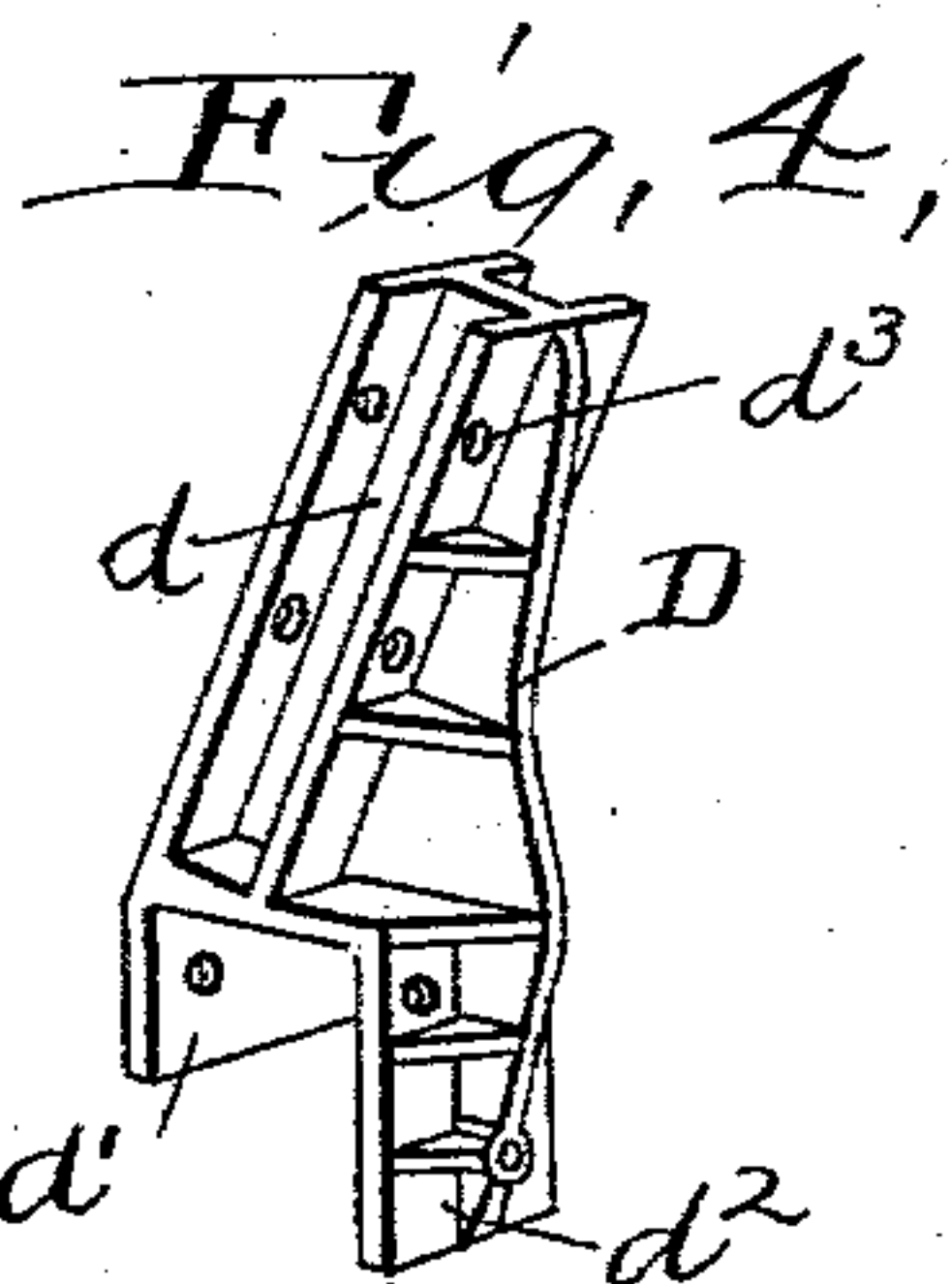
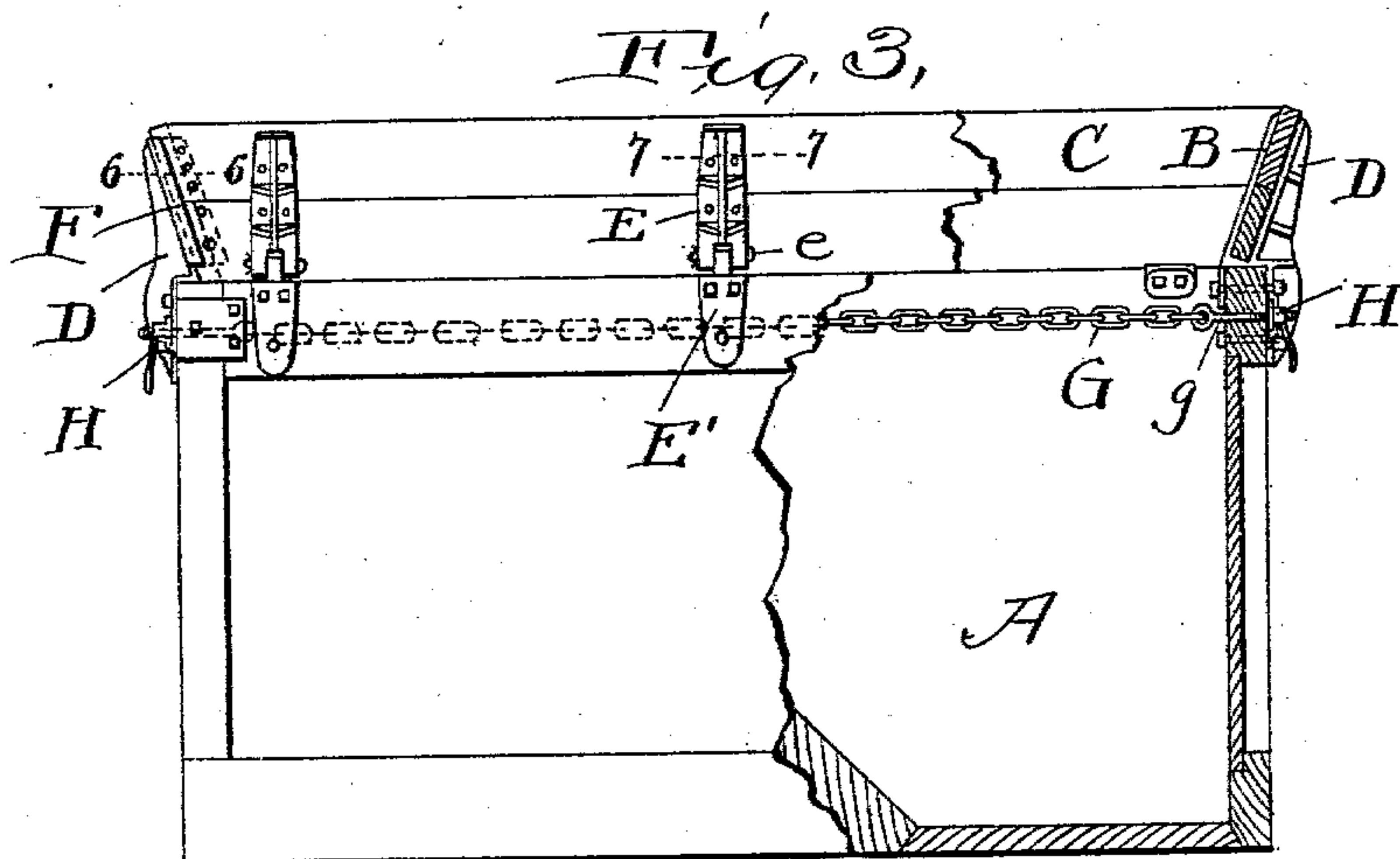
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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK S. INGOLDSBY, OF ST. LOUIS, MISSOURI.

EXTENSION-TOP FOR CAR-BODIES.

SPECIFICATION forming part of Letters Patent No. 720,923, dated February 17, 1903.

Application filed March 27, 1901. Serial No. 53,025. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. INGOLDSBY, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented
5 a certain new and useful Improvement in Extension-Tops for Car-Bodies, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

10 The ultimate object of this invention is to provide means enabling the maximum loading of "car-bodies," which term is used herein as including railway-cars or wagons.

15 In handling loads where the material is relatively light compared to its bulk an ordinary car-body may have its capacity increased by extending its sides upward. I provide such upward extension in a form which is readily removable, as well as simple and cheap in
20 construction and efficient in service, and, moreover, is divided into sections, so as to facilitate shoveling into or out of the car, as desired.

25 The invention consists of the embodiment of these features, as hereinafter shown and described, the combination of parts set out in the claims clearly summarizing the invention.

30 In the drawings, Figure 1 is a side elevation of a car-body having my upward extension, the rest of the body and the running-gear being shown diagrammatically. Fig. 2 is a plan of such car. Fig. 3 is a transverse section thereof. Fig. 4 is a perspective view of one of the brackets for holding the side
35 boards of the upward extension. Fig. 5 is a vertical section of the end-board extension. Figs. 6, 7, and 8 are horizontal sections on the correspondingly-numbered lines of Figs. 3 and 1, showing the brackets respectively at
40 the corners of the extension, at the intermediate points on the end board, and at the sides. Fig. 9 is a section showing the fastening of the chain, being an enlargement of the corresponding portion of Fig. 3. Fig. 10 is a
45 face view of the chain-fastening.

Referring to the parts by letters, A represents the body of the car, which has at its upper edges the side beams *a* and the end beams *a'*. These beams carry the upward
50 extension composed of side boards B, end boards C, and suitable brackets for holding them in place, the term "board" being used

herein simply with reference to the function and including any material, whether wood, metal, or other substance. 55

Secured to the beams *a* and extending upward are brackets D, preferably of the form shown in Fig. 4, whose essential characteristic is that there are presented a pair of grooves *d*, facing in opposite directions and preferably inclined outward. The bracket shown
60 may be a malleable casting adapted to rest on the upper edge of the beam *a* and having lips *d'* and *d''* taking onto the inner and outer sides of that beam, the bracket being held in
65 place by bolts passing through these lips. Thus the portion of the bracket which cooperates with the side boards B is of substantially an I-beam cross-section, and in the two grooves thus provided the ends of the boards
70 B take, as shown clearly in Fig. 8. The side boards may be secured in place by pins passing through holes therein and aligned holes *d'''* in the flanges of the I-beam section.

The above-described construction allows
75 not only the use of short side boards which may be conveniently stored when not in use and conveniently handled, but it also provides for the separate removal of any part of the extension, which is of great convenience
80 in shoveling into the car or shoveling out of it. For example, if the car be unloaded by hand as soon as any portion of the load has been lowered to the level of the beam *a* the side board B at that portion may be removed,
85 so that the shoveler will not have to lift the load so high in removing the rest of it. Likewise in loading the car it is desirable not to have to lift the load higher than the beam *a* until necessary. The end boards C are also
90 adapted to be conveniently removed from their operative position. In use they are rigidly carried by the end beam *a'* of the car; but I allow for their convenient removal from operative position preferably by having a
95 hinge in the brackets which hold them, whereby they may be turned down out of the way. This is clearly illustrated in Fig. 5. There the end board C is held by the bracket consisting of two members E and E', pivoted together at *e*. In use these members are normally locked by the bolt *e'*, passing through
100 overlapping ears carried at the forward edge of the two parts of the bracket. When de-

sired, however, the end board may be turned back to the position shown in dotted lines in Fig. 5 by the removal of the pin e' . It is to be understood that this compound bracket E

5 E' might be permanently rigid and the end board removed from it by the removal of the pins or bolts e^2 . In either event the brackets may be made of malleable castings suitably ribbed, as shown in Figs. 5 and 7, and having lips e^3 and e^4 taking onto the inner and

10 outer side of the end beam a' and there secured by suitable bolts. At the corners of the end board I provide brackets of peculiar shape, which serve both to protect the end

15 board and to receive the ends of the side boards. These brackets are shown in section in Fig. 6 and designated F. They are secured to the end boards by suitable bolts, as f . They have flanges f' taking over the ends of the

20 end board, and to the ends of the side board they present the channel-shaped groove f^2 , wherefore these extreme side boards are held in substantially the same manner as the intermediate side boards.

25 When a car is loaded to its maximum height, the load obtains an increased leverage on the car sides, and there is thus a considerable outward pressure on the sides, and in order to prevent this from outwardly bulging the sides

30 I provide one or more cross-ties in the form of chains G, extending across the car between the beams a . In order, however, that these chains may be conveniently removed when not required and yet their fastening always

35 remain ready for use, I provide the following mechanism for holding them: At either or both ends the chain is secured to the threaded eyebolt g . This eyebolt passes through the beam a and takes into a nut H of peculiar

40 construction. This nut has a threaded opening to receive the eyebolt g and has a rigid annular flange or collar h , which rests against a washer J on the side of the car and is rotatively held thereto by the two clamping-

45 plates J', which are dished or offset outward to receive the collar h and have an opening into the recess thus provided which the hub of the nut H occupies. These clamping-plates meet on the diametric plane and are held to

50 the side of the car by suitable screw-bolts j . They thus allow the convenient installation or removal of the nut H, while holding it on the car side as desired, whether or not the chain is used, and allowing its convenient rotation

55 to tighten up the chain. A handle h' projects

from the nut, whereby it may be rotated by hand.

I claim—

1. The combination of a car-body, an upward extension therefor which has an end 60 board hinged thereto but adapted to be held rigid with the end of the car, and side boards, the end board carrying at its ends brackets presenting a groove to the side boards whereby the side boards are held by the end board 65 but do not prevent the end board being turned down on its hinge, substantially as described.

2. The combination with a car-body having a top beam, a composite bracket one member of which is adapted to be secured to said 70 beam, the other member of which is pivoted to the first member and presents an upwardly-extending arm, an extension-board secured to said arm, said two members having, in addition to their hinge-joint, ears 75 adapted to overlap and having recesses adapted to aline, and a bolt or pin adapted to occupy such alined recesses, substantially as described.

3. The combination of a car-body, a composite bracket adapted to be carried by a 80 beam of the body, one member of the bracket resting on said beam and having a downwardly-extending lip engaging the side thereof and having a pair of upwardly-extending 85 ears, and the other member of the bracket having downward ears adapted to cooperate therewith, a pin passing through one set of said cooperating ears and hinging the two members together, and a pin adapted to re- 90 movably pass through the other set and lock said members against swinging on the hinge, substantially as described.

4. The combination with two portions of a car, of a bracket for hinging and locking them 95 together, said bracket consisting of two members each having a pair of ears, the ears of one member cooperating with those of the other, and two pins, one pin passing through one set of cooperating ears and forming a 100 hinge-pintle, and the other pin being adapted to removably pass through the other ears and form a lock, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 105

FRANK S. INGOLDSBY.

Witnesses:

ALFRED E. DAVIS,
J. C. CROWE, Jr.