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C. C. WORTLEY.  
SIGN.  
APPLICATION FILED JAN. 6, 1909.

Patented Feb. 7, 1911.  
3 SHEETS—SHEET 1.

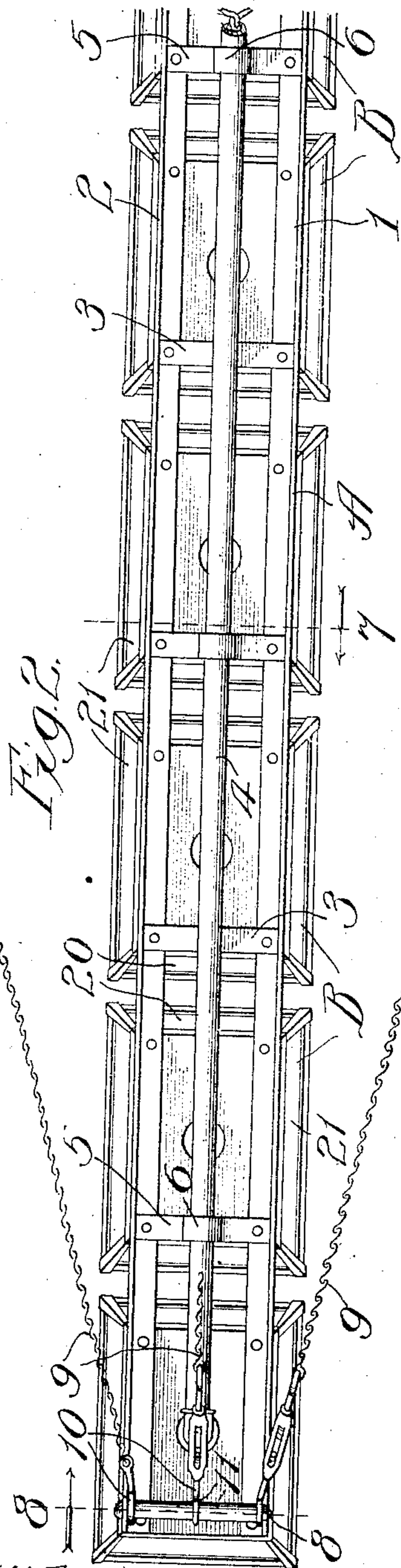


Fig. 2.

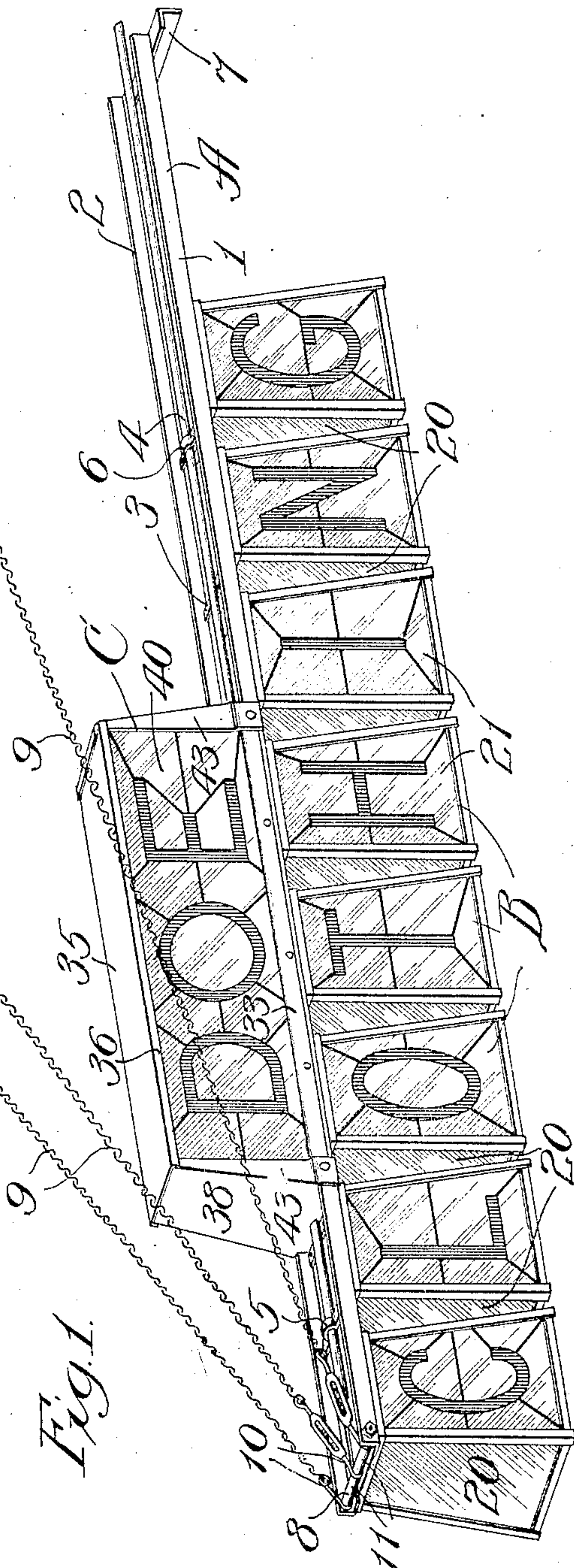


Fig. 1.

Witnesses:  
John Enders  
Chas. H. Buell.

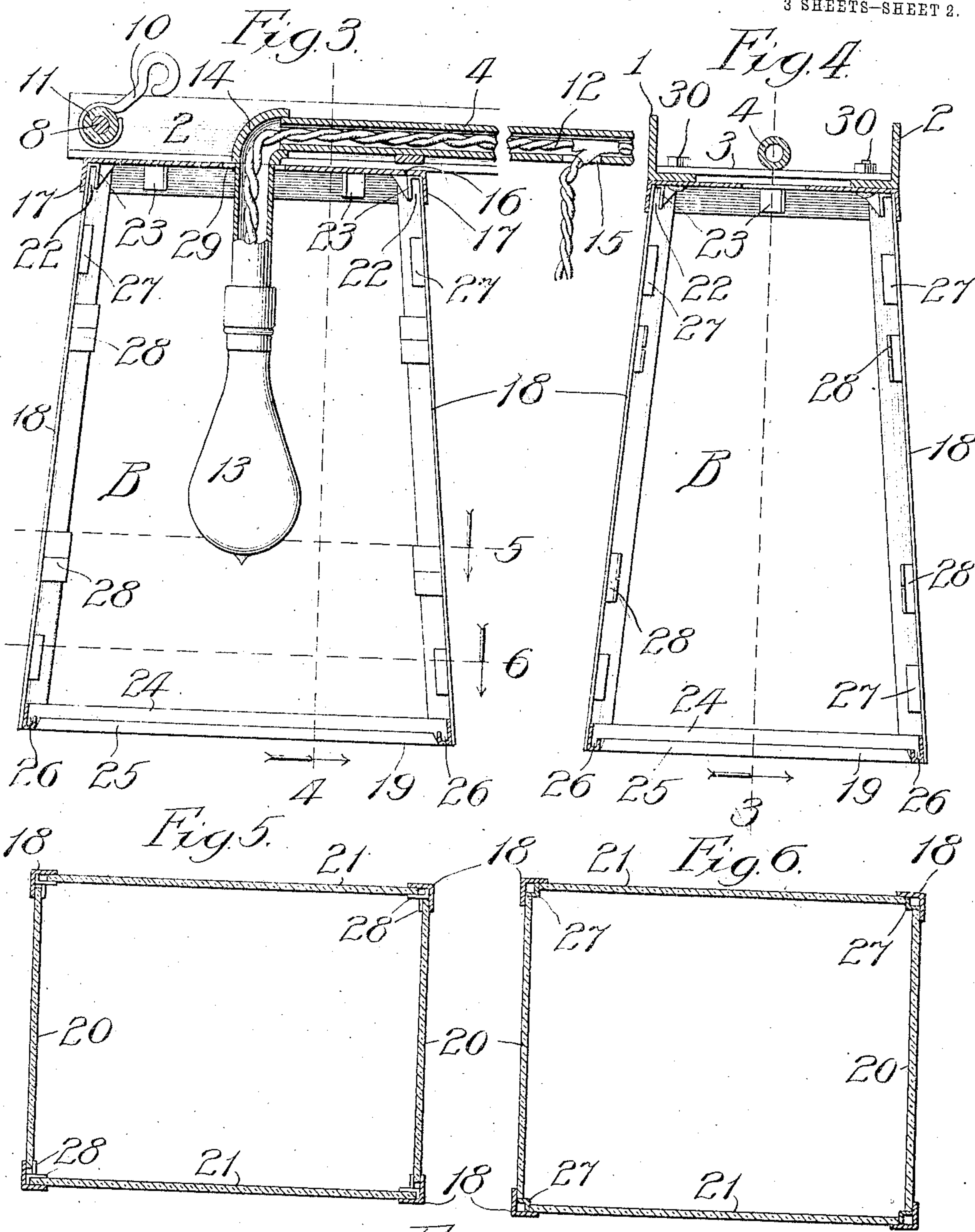
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3 SHEETS—SHEET 2.



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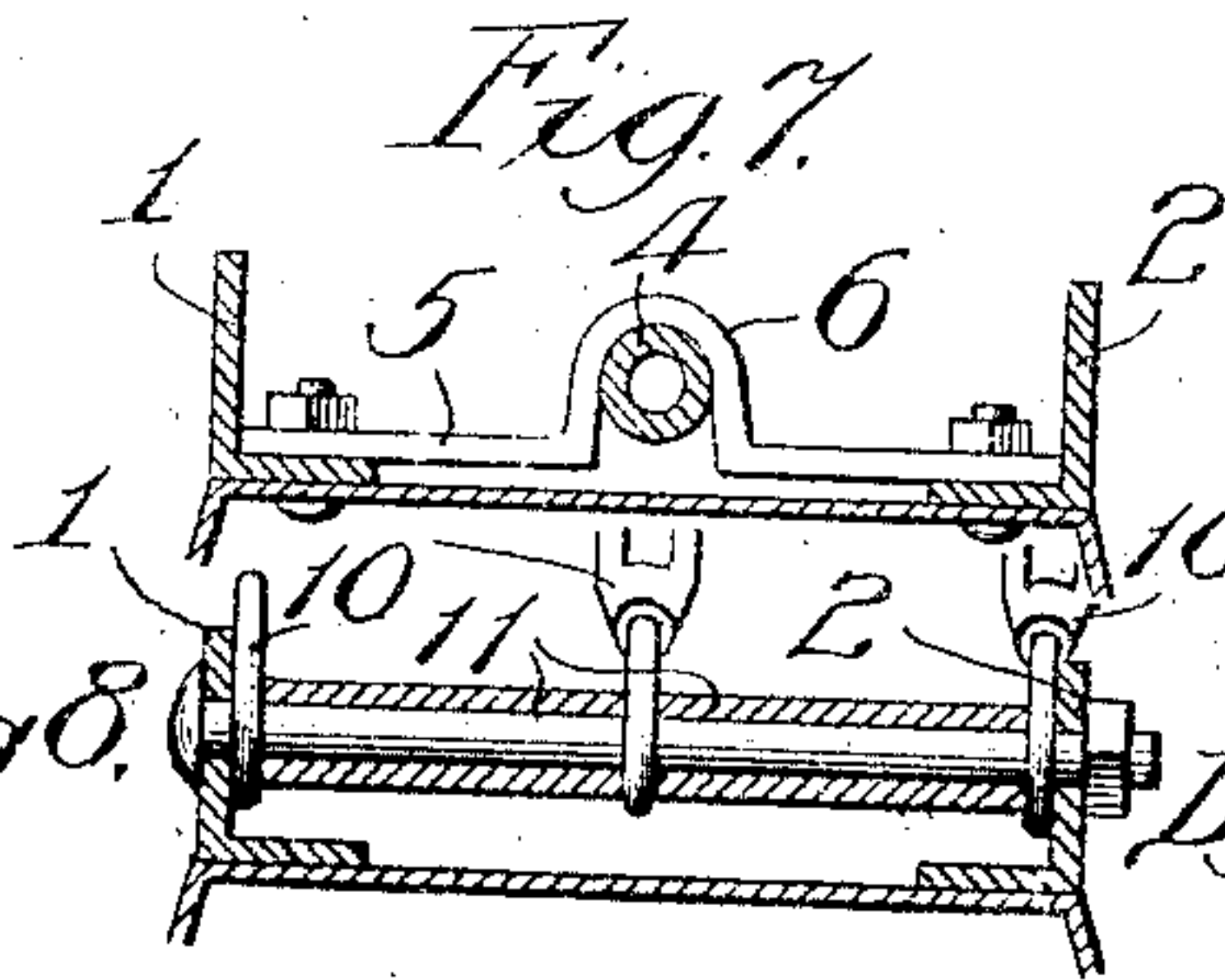


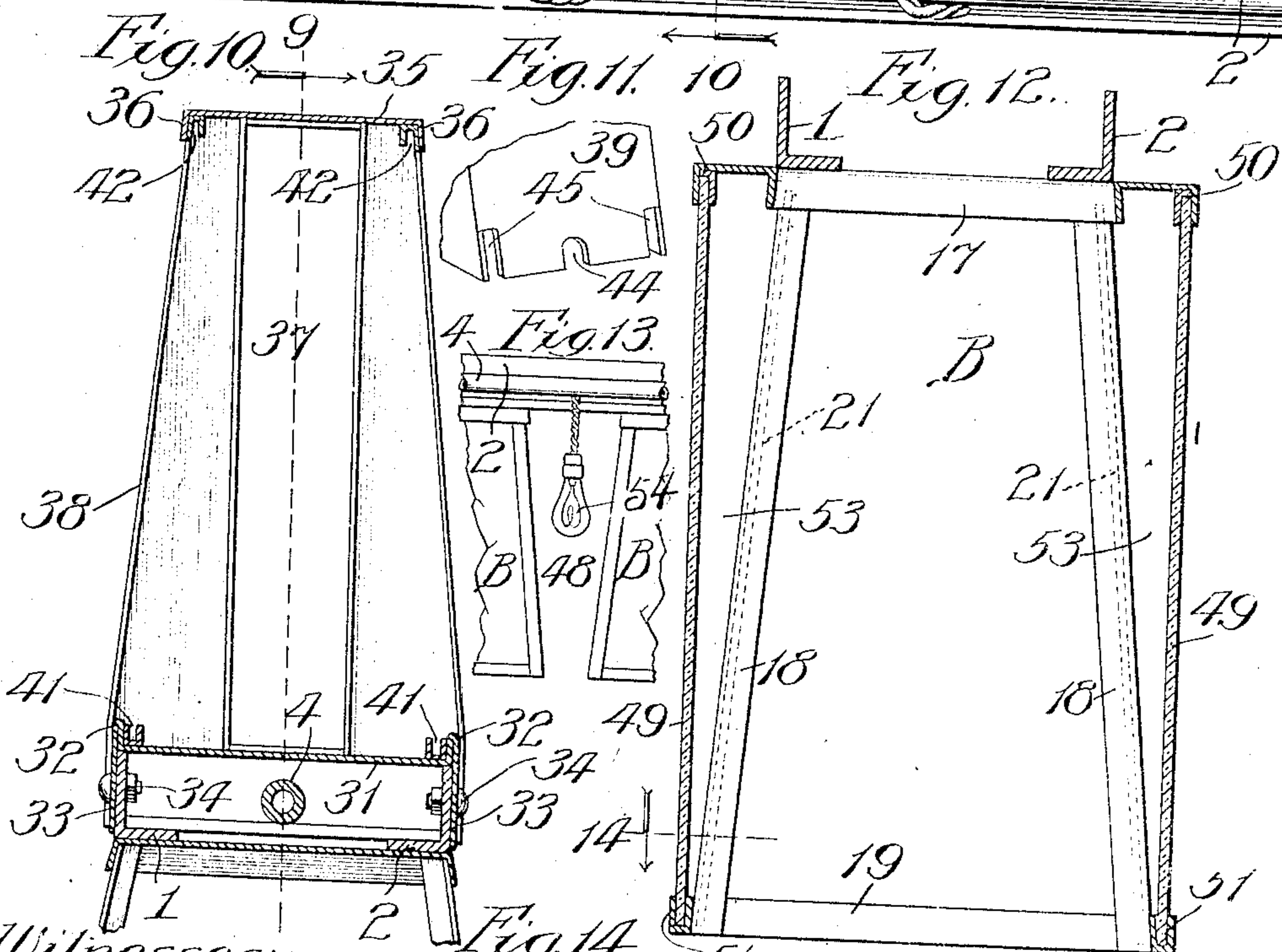
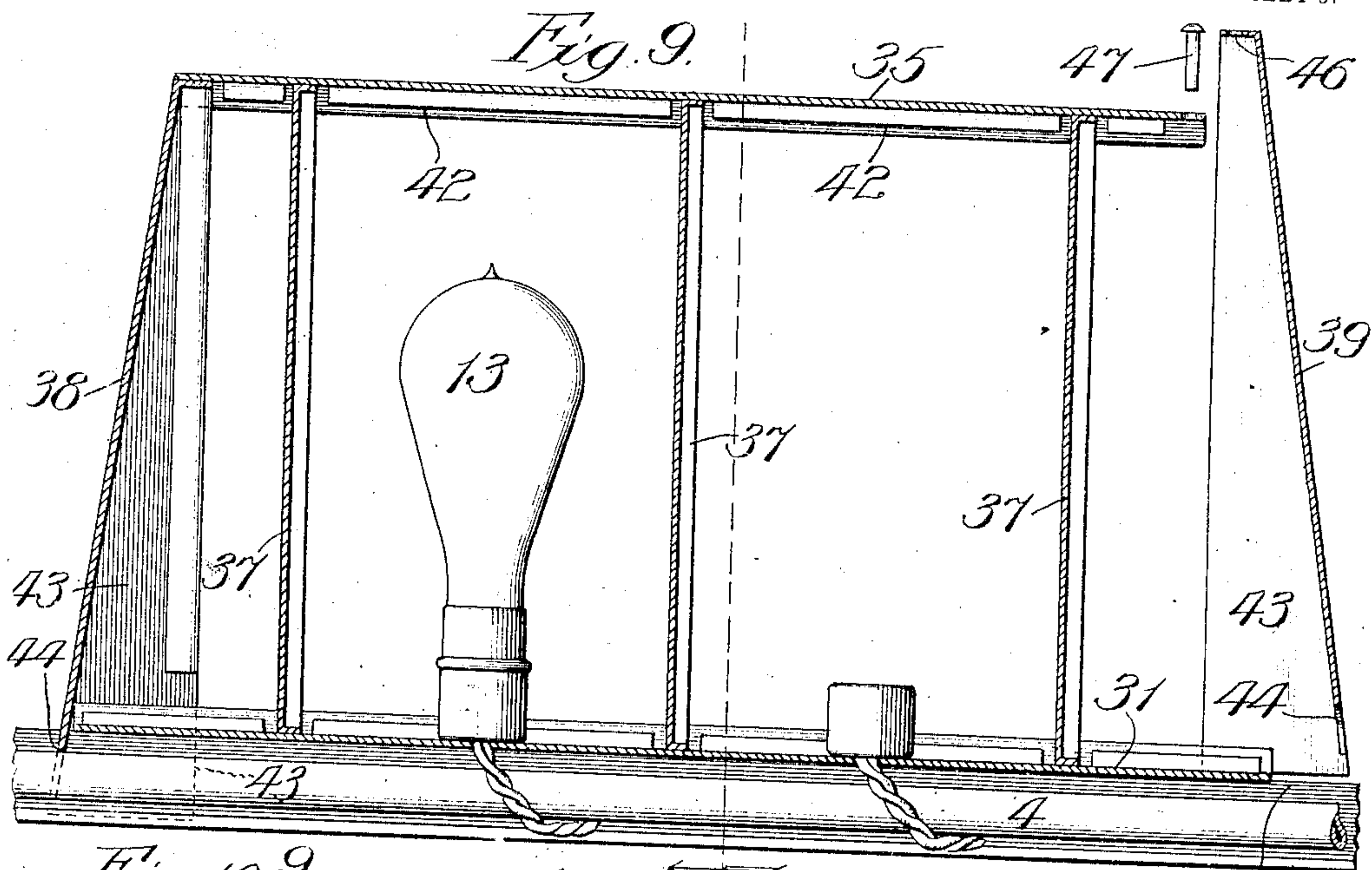
Fig. 8.



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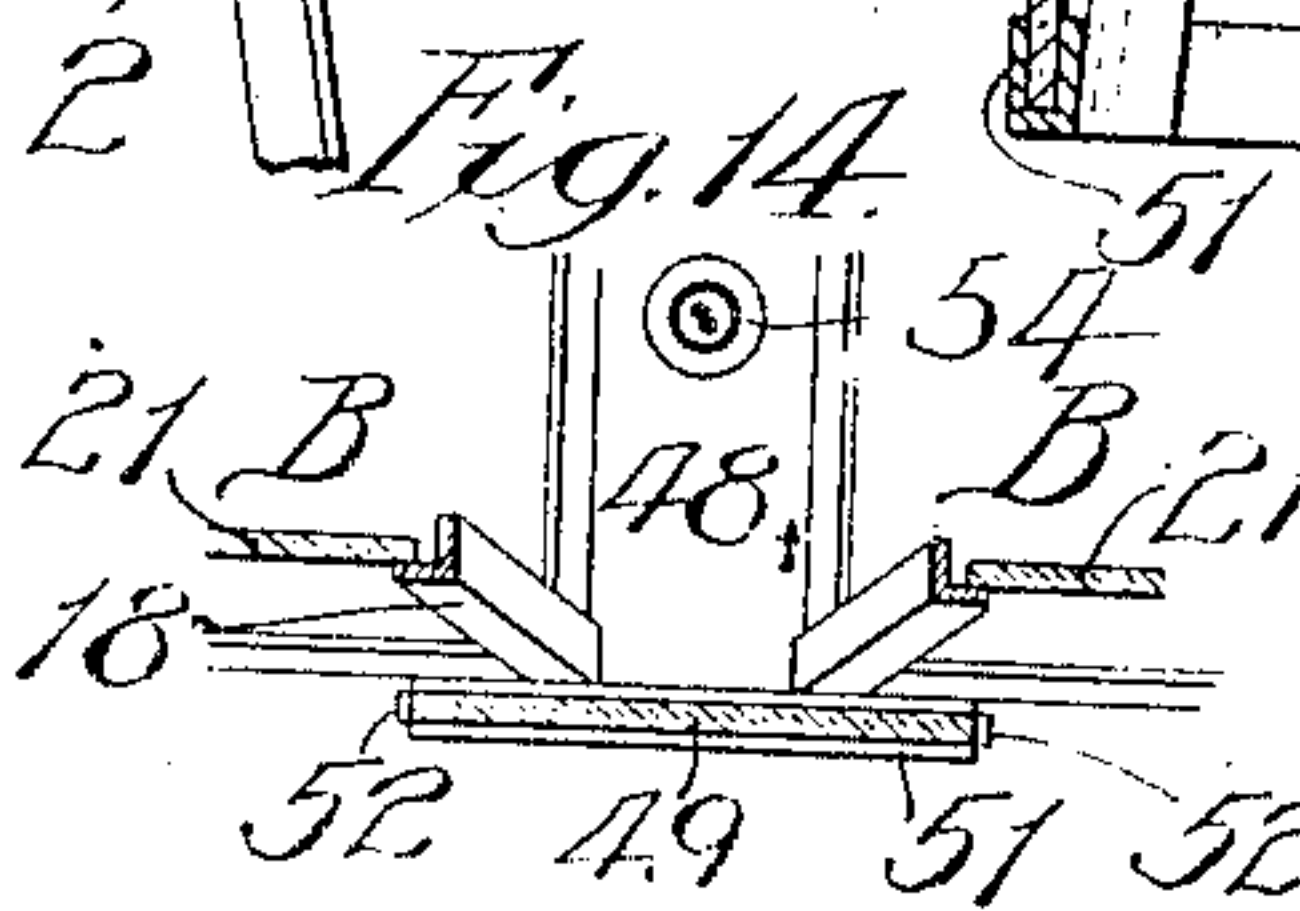
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Patented Feb. 7, 1911.  
3 SHEETS-SHEET 3.



Witnesses:

John Enders  
Chas. H. Buell



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# UNITED STATES PATENT OFFICE.

CLARK C. WORTLEY, OF CHICAGO, ILLINOIS.

SIGN

983,593.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed January 6, 1909. Serial No. 470,912.

*To all whom it may concern:*

Be it known that I, CLARK C. WORTLEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Signs, of which the following is a specification.

My invention relates particularly to signs adapted for street purposes and provided with illuminating means; and my primary object is to provide a sign of improved construction and appearance, capable of being manufactured at a moderate cost, and having provision for the ready substitution of new lettering or new lettered-panels.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a perspective view of a sign constructed in accordance with my invention; Fig. 2, a plan view of the same with the upper section of the sign removed; Fig. 3, an enlarged broken longitudinal vertical sectional view showing the outer end-portion of the sign; Fig. 4, a transverse section taken, as indicated, at line 4 of Fig. 3; Figs. 5 and 6, horizontal sectional views taken, as indicated, at the corresponding lines of Fig. 3; Figs. 7 and 8, broken vertical sectional views taken, as indicated, at the corresponding lines of Fig. 2; Fig. 9, a broken longitudinal sectional view through the upper portion of the sign, showing one end-plate of the frame detached; Fig. 10, a broken transverse vertical section taken, as indicated, at line 10 of Fig. 9; Fig. 11, a broken perspective view of the end-plate which is shown detached in Fig. 9; Fig. 12, a transverse sectional view showing a modification; Fig. 13, a broken side elevational view, on a reduced scale, of the construction shown in Fig. 12; and Fig. 14, a broken section taken, as indicated, at line 14 of Fig. 12.

Referring to Figs. 1 to 11, inclusive, the construction, in the form illustrated, comprises a horizontally-disposed frame A which may be connected with the side of a building in any suitable manner; a series of illuminable sign-sections, or panel-equipped devices B depending from the frame A; and a sign-section, or panel-equipped illuminable device C surmounting the frame A.

The frame A preferably is constructed of a pair of angle-bars 1 and 2 extending parallel with each other and separated by a space of a few inches; transverse-bars or

spacing-members 3 connecting said angle-bars; a centrally-disposed tubular member 4 resting on the cross-bars 3; and a series of transverse-bars 5 connected with the angle-bars 1 and 2 and having their central portions curved upwardly, as indicated at 6, to accommodate the tubular member or pipe 4. The angle bars 1 and 2, which are disposed in a horizontal plane, have one set of flanges turned toward each other and the other set of flanges turned upwardly, as will be readily understood from Fig. 7, whereby a space is afforded between the vertical flanges in the central portion of which the pipe 4 is located.

The inner end of the frame A is shown equipped with an angle-bracket 7 which may be connected with a wall of a building; and the outer ends of the bars 1 and 2 are connected by a bolt 8, with which are connected supporting cables 9, represented as three in number. The cables 9 are equipped at their outer ends with connecting members 10 which are pivotally joined to the bolt 8. One of the cables is connected with the central portion of the bolt and the other two with the end-portions thereof, the members 10 being separated or spaced by spacing-sleeves 11.

The pipe 4 serves as a conduit for electric-conductors 12, which may pass from the building through said pipe, said conductors having connected therewith electric-lights 13 located in chambers B and C. The outer end of the pipe 4 is equipped with an elbow 14 having a down-turned open end through which the conductors for the last of the series of lamps 13 pass. Said pipe is also provided at intervals in its lower side with perforations or outlets 15 through which the electric conductors for the lamps may pass.

While the bracket 7 provides for a substantially rigid connection between the inner end of the frame A and the building, it will be understood that any desired connection may be employed at this point.

Each panel-equipped device or chamber B preferably comprises a sheet-metal top-plate 16 of rectangular form and having down-turned flanges 17; angle-form corner-members 18 depending from the corners of the flanged top-plate 16 and inclining as shown; a channel-form lower rim-member 19 connected with the lower ends of the corner-members 18; transparent end-panels 20; and transparent character-bearing side-



panels 21. The flanges 17 form an upper rim-member within which the upper margins of the glass-panels 20, 21 are received, channels 22 being provided for the reception of the upper ends of the glass-panels by attaching angle-form clips or lugs 23 to the top-plate 16, the depending flanges of said members 23 co-acting with the flanges 17. Preferably the upper ends of the corner-frame members 18 fit within the corners formed by the flanges 17, said members 18 being secured by means of solder; and the members 23 may likewise be secured in place by means of solder. The channel-bars 19 which form the lower rim-member preferably have relatively wide upturned outer flanges 24 and relatively narrow upturned inner flanges 25, the flanges 25 being narrower than the length of the depending flanges of the members 23, so that the panel may be inserted by entering its upper end in the channel 22, passing the lower end over the flange 25 of the lower rim-member, and then allowing the panel to drop into the channel 26 of the lower rim-member. Within the corners of the angle-bar corner-members 18 are soldered small reversely-flanged members 27 which afford bearings for the edges of the glass-panels; and to the inner surfaces of the flanges of the angle-bar corner-members 18 are soldered flexible sheet-metal members 28, which may be bent, according to necessity, to secure the vertical margins of the glass-panels. The members 28 may likewise be bent back to permit the glass-panels to be removed, either for the purpose of washing the same or substituting other panels. The panels 21 may serve as individual panels for the reception of letters, so that when the panels are rightly associated a name is produced. The lower ends of the chambers B may be left open. As thus described, each chamber, or panel-equipped device, B presents somewhat the appearance of a truncated hollow pyramid with transparent sides, two of the sides being employed for receiving sign-characters. The top-plates 16 are provided with central-perforations 29 through which depend the electric-conductors with which the electric lamps 13 are connected, each chamber thus serving as an individual housing for an electric-light. Each top-plate 16 is detachably connected with the horizontal flanges of the angle-bars 1 and 2 by means of bolts 30.

The surmounting device C, as will be understood by reference to Figs. 1, 9, 10 and 11, preferably comprises a sheet-metal bottom-plate 31, which is supported on the angle-bars 1 and 2, the metal of which is bent up and then back upon itself to afford upturned flanges 32, the metal being then extended downwardly to form flanges 33 which embrace the vertical flanges of the angle-bars 1 and 2, and are connected therewith by

means of bolts 34; a sheet-metal top-plate 35 having downturned lateral flanges 36; vertically-disposed sheet-metal division-plates 37 connected at their lower ends with the bottom-plate 31 and at their upper ends with the top-plate 35; end-plates 38 and 39, the latter of which is removable; and glass-panels 40 forming the sides of the chamber and removably inserted in guides 41 and 42 with which the bottom plate 31 and top-plate 35 are equipped, respectively, on their inner surfaces. The guides 41 and 42 may be formed by securing small channel-bars adjacent to the flanges 32 and 36, as illustrated. The end-plates 38 and 39 incline, as shown in Fig. 9, and have lateral flanges 43 adapted to embrace the end-portions of the bottom-plate 31 and top-plate 35, said flanges 43 serving also to house the end of the glass-panels 40. As shown in Fig. 1, the lower ends of the plates 38 and 39 are provided with central recesses 44 which accommodate the pipe 4, and with recesses 45 which accommodate the flanges 32 and the vertical flanges of the angle-bars 1 and 2. As has been indicated, the end-plate 39 is removable. It is provided at its upper end with an inturned flange 46 adapted to fit over the top-plate 35, said flange and top-plate being provided with perforations adapted to receive a pin 47. The vertical plates 37, the bottom-plate 31 and the top-plate 35 may be enameled or painted white on the surface presented to the interior of the chamber, in order to reflect the light from the lamps 13. This may be true, also, of the interior surfaces of the end-plates 38, 39. To remove the panels 40 it is necessary only to remove the end-plate 39, when the panels may be moved longitudinally in their guides.

A sign of the construction described is strong, durable and of pleasing design and appearance. The individual panels are removable for the purpose of renewal or substitution, and, in case of breakage, the expense of repair is reduced to a minimum. Ordinarily, art-glass is employed in the transparent panels, hence the economy resulting from the possibility of renewing the panels or letters individually is of great importance. The surmounting device C may or may not be employed. When it is employed it may serve to receive the name of a merchant, the individual panels serving to indicate the character of the business conducted. The construction provides for securely housing the electric conductors and hiding the conduit which contains them from view when the sign is viewed from the street, and the open-work construction of the frame A prevents objectionable accumulation of dirt and permits the sunlight to pass between the devices B and through the end-panels 20 thereof, thereby insuring



good illumination of the letters in the day-time.

In the modification illustrated in Figs. 12, 13 and 14, the general construction is the same as the construction already described, and the parts are similarly lettered. In this construction, however, the spaces 48 between the adjacent devices B are flanked by glass-plates or panels 49 held by channel-form guides 50 and 51 carried by the upper and lower rim-members 17 and 19 of the frames of adjacent devices B. The panels 49 are secured in the channels 50 and 51 by lugs 52, as shown in Fig. 14. As will be understood from Figs. 13 and 14, the edges of the panels 49 overlap or project past the corners of the adjacent devices B slightly; and the panels 49, as will be understood from Fig. 12, are carried at a short distance from the glass-panels 21 of the devices B, being separated by a space 53, so that light thrown upon the inner surfaces of the panels 49 may be reflected upon the outer surface of the panels 21. In this construction, electric-lights 54 may be located between adjacent devices B, so as to throw light upon the inner surface of the panels 49 from whence it will be reflected upon the outer surfaces of the panels 21. Where the modified construction is employed, the lamps within the devices B may be dispensed with, if desired, and so also may be the end-panels 20 of the devices B.

The foregoing detailed description has been given for clearness of understanding only, and no undue limitation is to be understood therefrom.

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

1. In a sign, the combination of a supporting-frame, a series of panel-frames depending therefrom, each comprising a top-plate provided with panel-receiving channels, corner-members depending from said top-plate, and a lower rim supported by said corner-members and having a channel bounded by a relatively narrow inner flange, and removable character-bearing panels received in said channels.

2. In a sign, the combination of a pair of

angle-bars having one set of flanges turned toward each other and another set of up-turned flanges, cross-members connecting said angle-bars, a pipe supported on said cross-members, panel-supporting frames depending from said angle-bars, character-bearing panels carried by said panel-supporting frames, electric lights serving to illuminate said panels, and electric conductors connected with said electric lights and extending through said pipe.

3. In a sign, the combination of a horizontally-disposed frame, a series of horizontally alined panel-frames depending therefrom, character-bearing panels carried by said panel-frames, and a surmounting device carried by said frame and comprising a frame and character-bearing panels removably connected therewith.

4. In a sign, the combination of a horizontally-disposed open frame, a pipe supported thereon and provided in its lower side with openings, electric conductors in said pipe extending through said openings, a series of horizontally alined panel-frames depending from said first-named frame, character-bearing transparent panels supported by said panel-frames, electric lights within said frames, a device surmounting said first-named frame comprising a frame composed of a top-plate and end-plates, removable character-bearing transparent panels carried by said last-named frame, and an electric light within said last-named frame, said conductors being connected with said electric lights.

5. In a sign, the combination of a pair of angle-bars having a set of flanges turned toward each other and another set of up-turned flanges, cross-bars connecting said angle-bars, a cross-bolt connecting the outer ends of said angle-bars, cables connected with the central and end portions of said bolt, spacing-sleeves on said bolt, and a series of panel-equipped individual frames depending from said angle-bars.

CLARK C. WORTLEY.

In the presence of—

A. U. THORIEN,  
R. A. SCHAEFER.