No. 856,036. PATENTED JUNE 4, 1907.

W. R. DEAN.

KNOCKDOWN FURNITURE.

APPLICATION FILED JUNE 22, 1906.

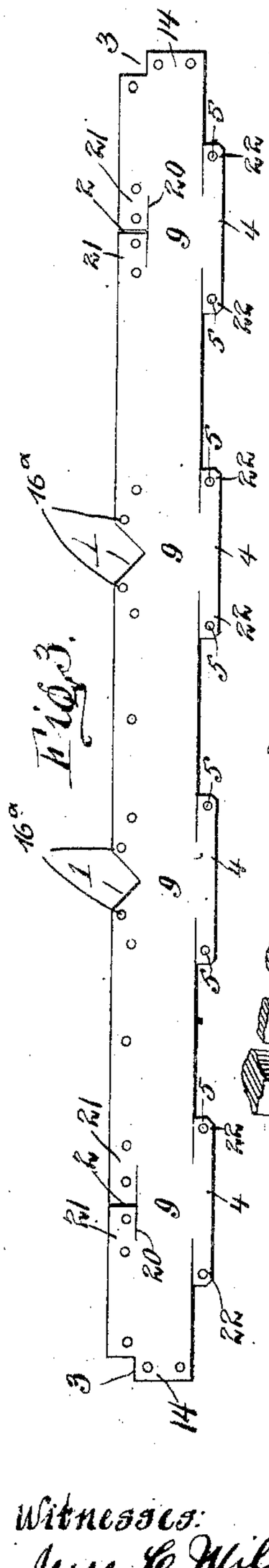

Fig. 3.

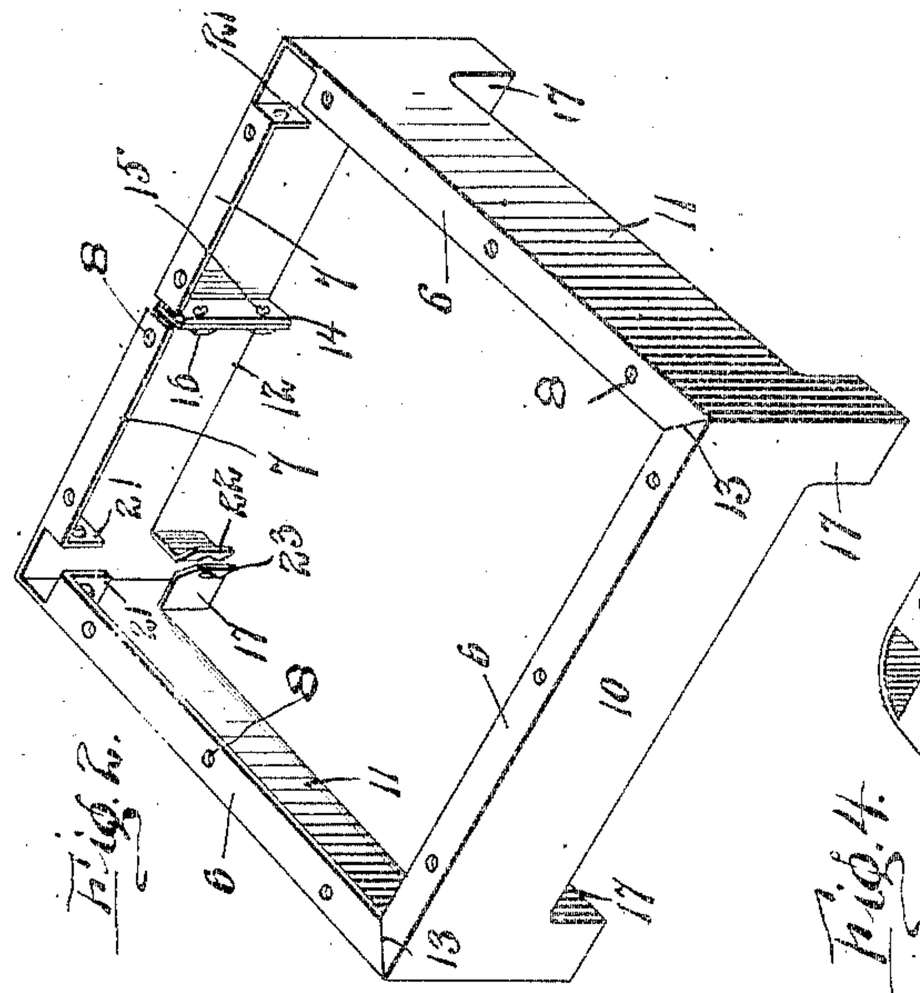

Fig. 2.

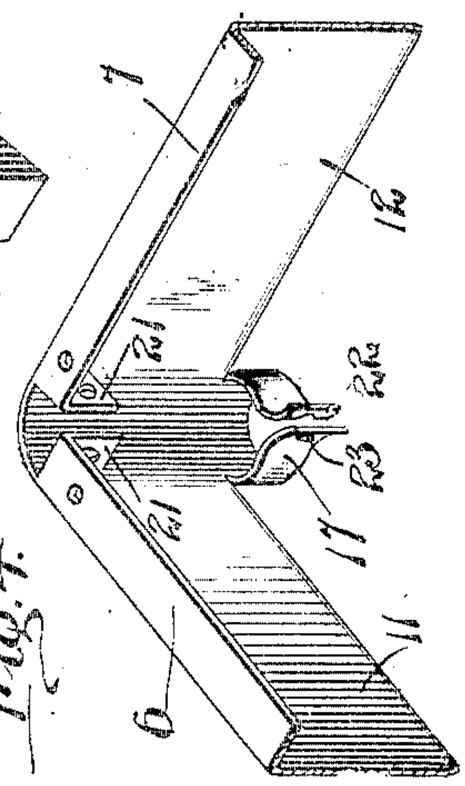

Fig. 4.

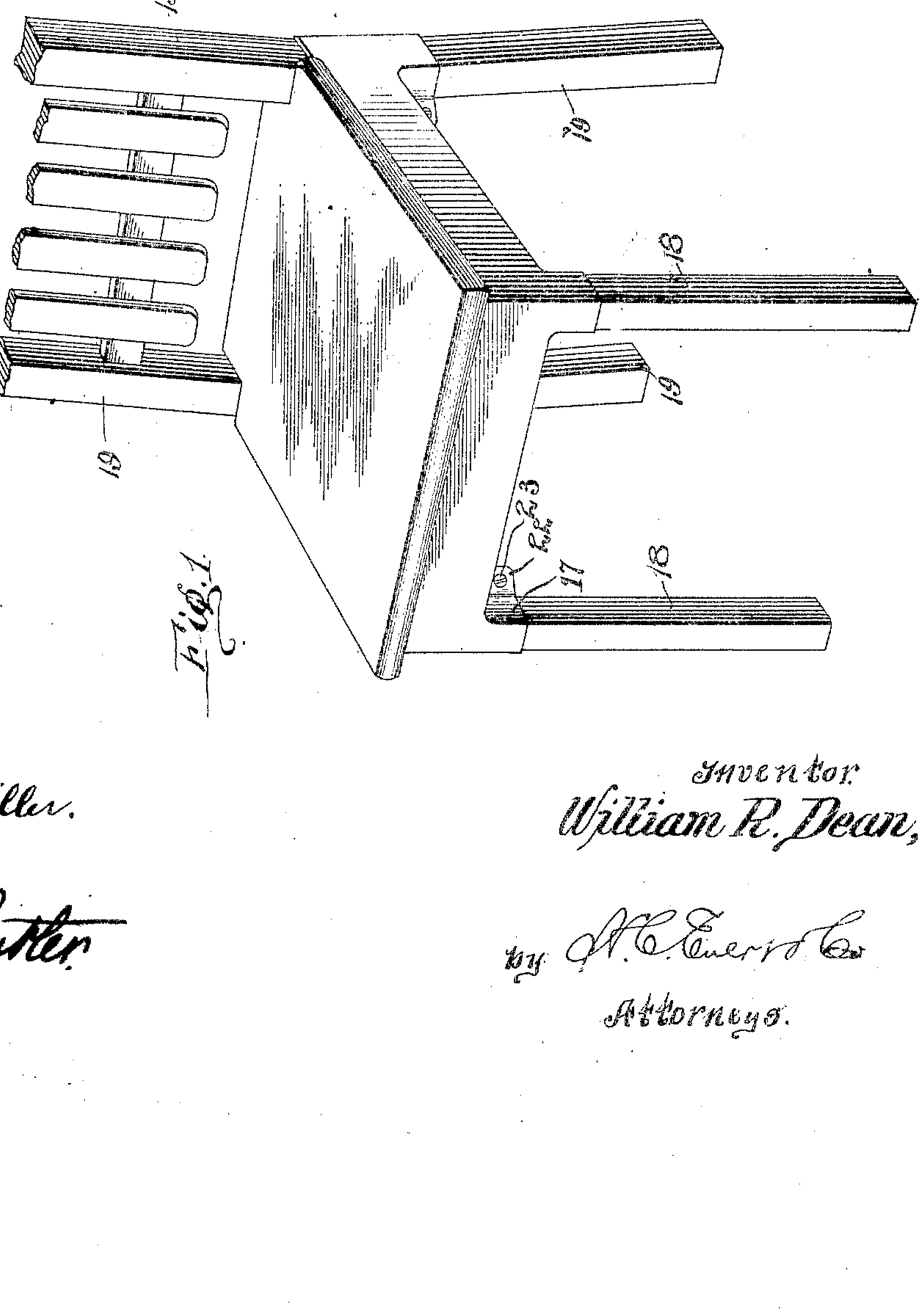

Fig. 1.

Witnesses:
Jesse C. Miller.

H. N. Butler

Inventor:
William R. Dean,

by A. C. Ewers & Co
Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM R. DEAN, OF McKEESPORT, PENNSYLVANIA.

## KNOCKDOWN FURNITURE.

No. 856,036. Specification of Letters Patent. Patented June 4, 1907.

Application filed June 22, 1906. Serial No. 322,837.

*To all whom it may concern:*

Be it known that I, WILLIAM R. DEAN, a citizen of the United States of America, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Knockdown Furniture, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to knock-down furniture, and more particularly to chairs, and its primary object is to provide a securing and bracing device for chairs and other articles of furniture which will entirely avoid the use of glue in securing the parts of the article together, and will afford in a single piece of metal a firm and reliable securing means for all parts of a chair.

The invention consists of a metallic frame of the novel construction hereinafter described, provided with means for securing it to the seat, legs, and back-bars of a chair.

In the drawing, which forms a part of this specification Figure 1 is a view in perspective, of a portion of a chair with my improved securing frame applied thereto, Fig. 2 is a view in perspective of the metallic securing frame detached, Fig. 3 is a plan view of the blank from which the securing frame is formed, and Fig. 4 is a perspective view of one corner of a slightly modified construction of the frame.

The frame is formed from a sheet metal blank such as is shown in Fig. 3, having its upper edge provided with two triangular notches 1, two longitudinal slits 20 each with an intersecting slit 2 and two end recesses 3. The lower edge of the blank is formed with spaced projections 4, having longitudinal slits to provide four depending portions having end perforations 5.

The upper edge of the blank is bent to a horizontal position to provide a plurality of flanges 6 and 7, provided with screw holes 8. The blank is then bent at the four points 9 to provide a front section 10, parallel side portions 11, and a two-part rear section 12, the triangular notches affording bevel surfaces to provide miter joints 13 at the front corners of the chair. The end lugs 14 of the blank are bent forward at right angles to register with each other and are secured together by bolts 15 and nuts 16 or like fastening devices.

The depending portions 4 are bent to provide sockets 17 for the legs 18 and 19 of the chair.

The tongues released by the longitudinal clefts 20 and the transverse clefts 2 are bent at right angles to the seat bearing flanges to bear against the sides of the legs and support the same, the bent tongues thus forming sockets to support the legs, the tongues being perforated to receive screws or other fastening means.

From the construction thus described it will be apparent that the frame provides a substantial securing device and brace for each of the four sides of the chair, the connection of the frame with the legs and seat of the chair being firm, and rigid, thus obviating the employment of the usual rounds to brace the legs, and avoiding also the use of glue in connecting the parts of the chair.

The flanges 6 and 7 of the frame are secured by screws to the under side of the chair seat, and the depending portions 4 securely clamp the legs within the frame sockets. The ends 22 of the straps are bent at an angle to the sockets and are perforated to receive clamping screws 23.

In case of shrinkage of the wood comprising the chair legs or seat, the structure may be readily tightened up by means of the clamping screws 23.

The construction shown in Figs. 1 and 2, is adapted for chairs the legs of which are rectangular in cross section, but it is obvious that the improvement is equally well-adapted for use upon round legs, by bending the corners and the depending portions 4 to provide round seats or sockets as illustrated in Fig. 4.

The invention not only provides a substantial and durable means for securing the parts of a chair together, but it is especially adapted for knock-down chairs, as the parts of the chair including the improved frame may be disconnected for shipment and easily placed together and secured by unskilled labor.

While I have described the invention as applied to a chair, it is also applicable to a variety of other articles of furniture, such as tables, stands, refrigerators and the like; and I would therefore have it understood that the invention is not restricted in its application to chairs, or to the exact construction shown in the drawing, but includes all such

modifications and variations in the minor details of construction, as may fall within the terms and scope of the appended claims.

What I claim and desire to secure by Letters Patent, is:

1. As a new article of manufacture, a base for furniture formed from a strip of sheet metal reduced at the ends and adapted to be bent to form lateral flanges and with a plurality of spaced depending portions at one side with oppositely extending clefts between the depending portions and the body of the strip and with intermediate angular notches in the opposite edges of the strip and with spaced longitudinal clefts between said notches and the end of said strip and transverse clefts centrally of the longitudinal clefts, said strip adapted to be bent at right angles and centrally of each of said depending portions and united by the end flanges and with the material between the longitudinal clefts and the end flanges and between the longitudinal clefts and the angular notches and between the angular notches bent at right angles longitudinally of the strip to form seat supporting flanges, and the tongues released by the several clefts bent to form sockets for the legs of the structure.

2. As a new article of manufacture, a base for furniture formed from a strip of sheet metal with spaced angular notches in one side edge and longitudinal clefts between said notches and the ends of the strip and transverse clefts centrally of the longitudinal cleft, said strip adapted to be bent at right angles centrally of the longitudinal clefts and centrally of the angular notches and united at the ends and with the material between the longitudinal clefts and the ends of the strip and between the longitudinal strips and angular notches and between the angular notches bent at right angles to form seat forming flanges and the tongues released by the several clefts bent at right angles to the flanges to form leg supporting sockets.

3. A securing frame for furniture, formed from a sheet metal blank provided along one edge with perforated securing flanges notched and slitted to provide beveled surfaces, and depending lugs, and cut away and slitted along its under edge to provide sockets for the supporting legs of the furniture.

4. The combination with a chair seat, of a frame formed from a single piece of sheet metal, and comprising front side and rear sections, flanges projecting therefrom and secured to the underside of the seat, depending straps bent to form corner sockets and clamping lugs, said flanges being slitted adjacent to the rear corners of the seat for the passage through the frame of the rear legs.

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

WILLIAM R. DEAN.

Witnesses:
MAX H. SROLOVITZ,
K. H. BUTLER.