

L. A. BUFFINGER & D. ROBERTSON.
 COMBINED SEAT AND STIFFENER.
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1,039,692.

Patented Oct. 1, 1912.

Fig. 1.

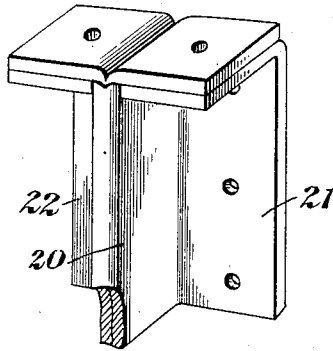


Fig. 2.

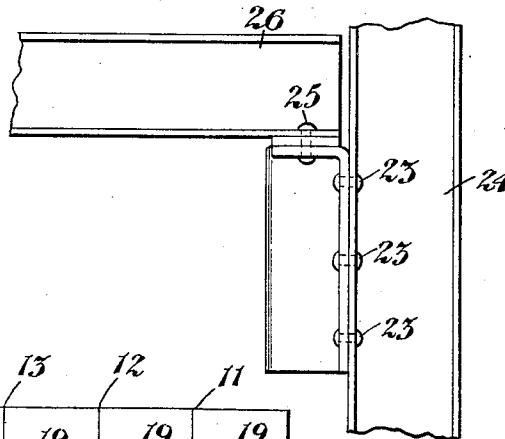
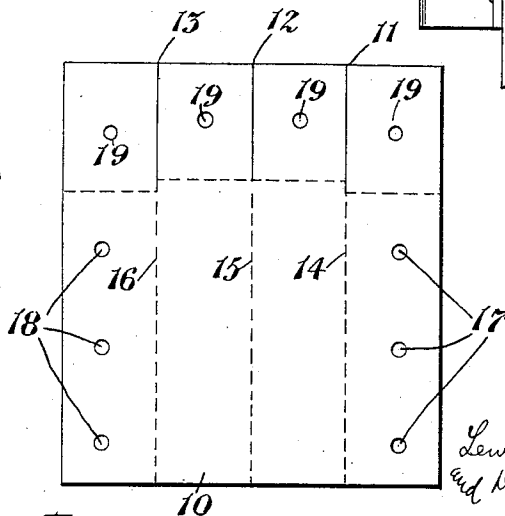


Fig. 3.



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UNITED STATES PATENT OFFICE.

LEWIS A. BUFFINGER, OF NEW YORK, N. Y., AND DAVID ROBERTSON, OF BOONTON,
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COMBINED SEAT AND STIFFENER.

1,039,692.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, LEWIS A. BUFFINGER, a citizen of the United States, and resident of the borough of Brooklyn, city, county, and State of New York, and DAVID ROBERTSON, a citizen of the United States, and resident of Boonton, county of Morris, and State of New Jersey, have invented certain new and useful Improvements in Combined Seats and Stiffeners, of which the following is a specification.

Our invention relates to a seat and stiffener for supporting and securing the horizontal members of structural iron work and the like to the vertical members.

Heretofore the beams and girders in structural iron work have been secured to the columns and the like by the use of angle-iron seats to which were riveted angle-iron stiffeners, and in cases where the stiffener extended below the vertical leg of the angle-iron seat a filler plate was inserted between the projecting lower portion of the stiffener and the column. This construction, however, involves numerous disadvantages, such as the difficulty of obtaining proper engagement of the stiffener with the horizontal portion of the seat, the necessity of using rivets of considerable length so as to pass through the three thicknesses of metal formed by the flanges of the column, seat or filler and stiffener flange, and the amount of work required in assembling and joining the parts together during the building construction.

The object of our invention is to do away with the disadvantages heretofore experienced in the construction and use of separate members for forming the seat and stiffener.

The invention can be illustrated with reference to the joining of I-beams and the like to columns, and accordingly we have shown in the accompanying drawing an embodiment of the invention utilized in connection with these members.

In said drawing Figure 1 is a perspective view of the completed seat and stiffener. Fig. 2 is a side elevation of an I-beam secured to a column by means of the combined seat and stiffener, and Fig. 3 is a plan view of the blank from which the combined seat and stiffener is formed.

Referring to the drawings, 10 indicates the sheet metal blank which preferably before folding is provided with the slits 11,

12 and 13 on folding lines 14, 15 and 16, and perforations 17, 18 and 19 which form rivet holes. In this condition, the blank is then folded upon itself, along the medial folding line 15 to form the double walled stiffening rib 20 and upon the lateral folding lines 14 and 16 to form the side flanges 21 and 22. The tongues projecting from the double walled stiffening rib and side flanges are then folded upon their lines of connection with the rib and flanges the outer tongues being made to project forward from the side flanges, whereas the inner tongues are made to extend laterally from the stiffening rib and superposed upon the outer tongues, thus forming the seat portion. It should be noted that the rivet holes 17 and 18 are in the side flanges whereas the rivet holes 19 are in the tongues and should be so located that those in the outer tongues will register with those in the inner tongues when the seat is completed.

In connecting the I-beam to the column, by mean of the combined seat and stiffener, it is apparent that rivets 23 which secure the seat and stiffener to the column 24, and hence must stand the greatest strain, pass through but two thicknesses of metal instead of three as heretofore and are thus materially shorter and stronger. The rivets which secure the I-beam 26 to the seat and stiffener, prevent relative motion between the inner and outer tongues at each side and thus the bending strains which they encounter are transmitted to the stiffening rib and side flanges. The punching of the rivet holes, and slitting of the blank to form the tongues, may all be accomplished in one operation, while the blank is open, thus greatly simplifying the construction.

We claim:

1. A combined seat and stiffener, comprising medial double walled stiffener rib, laterally projecting side flanges integral therewith and tongues projecting from said stiffener walls and said side flanges and superposed one upon another forming a double walled seat portion.

2. A combined seat and stiffener comprising a single sheet of wrought metal folded upon itself to form a medial double walled stiffener rib and having its lateral portions bent oppositely outward from said stiffener rib to form side flanges and the adjacent

ends of said stiffener rib walls and side flanges bent outwardly one upon the other to form a double walled seat portion.

3. A combined seat and stiffener formed
5 of a sheet metal blank folded upon itself to form a double walled stiffener rib, and having its lateral portions folded away from each other into a plane at right angles to the stiffener rib to form side flanges, the blank
10 being split at the upper portion upon the folding lines and the outer tongues thus

formed being folded forward at right angles to portions of the blank from which they project and the inner tongues being folded outwardly from each other and superposed 15 upon said outer tongues.

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