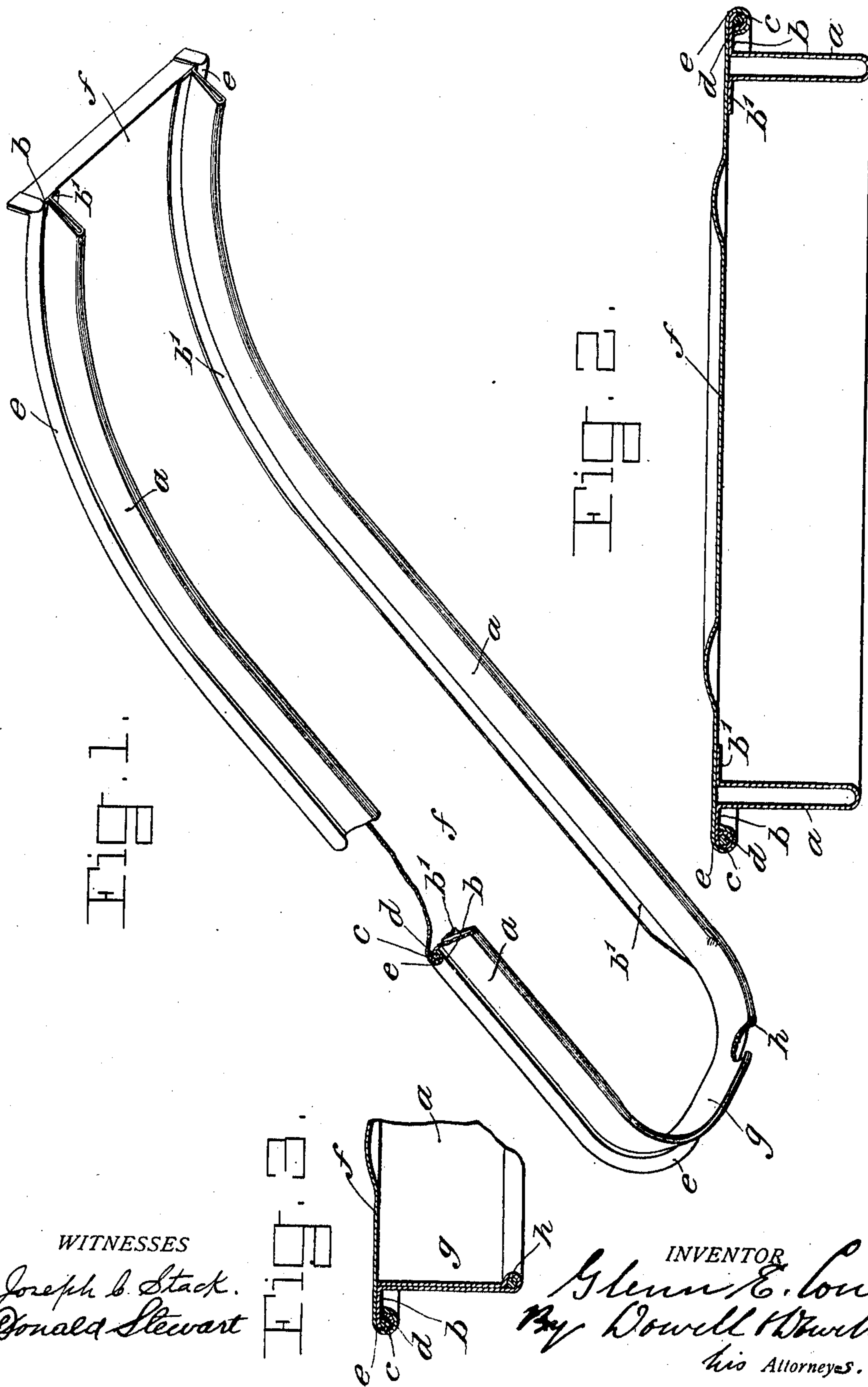


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AUTOMOBILE FENDER.
APPLICATION FILED JAN. 12, 1910.

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2 SHEETS—SHEET 1.



WITNESSES

Joseph L. Stack.
Donald Stewart

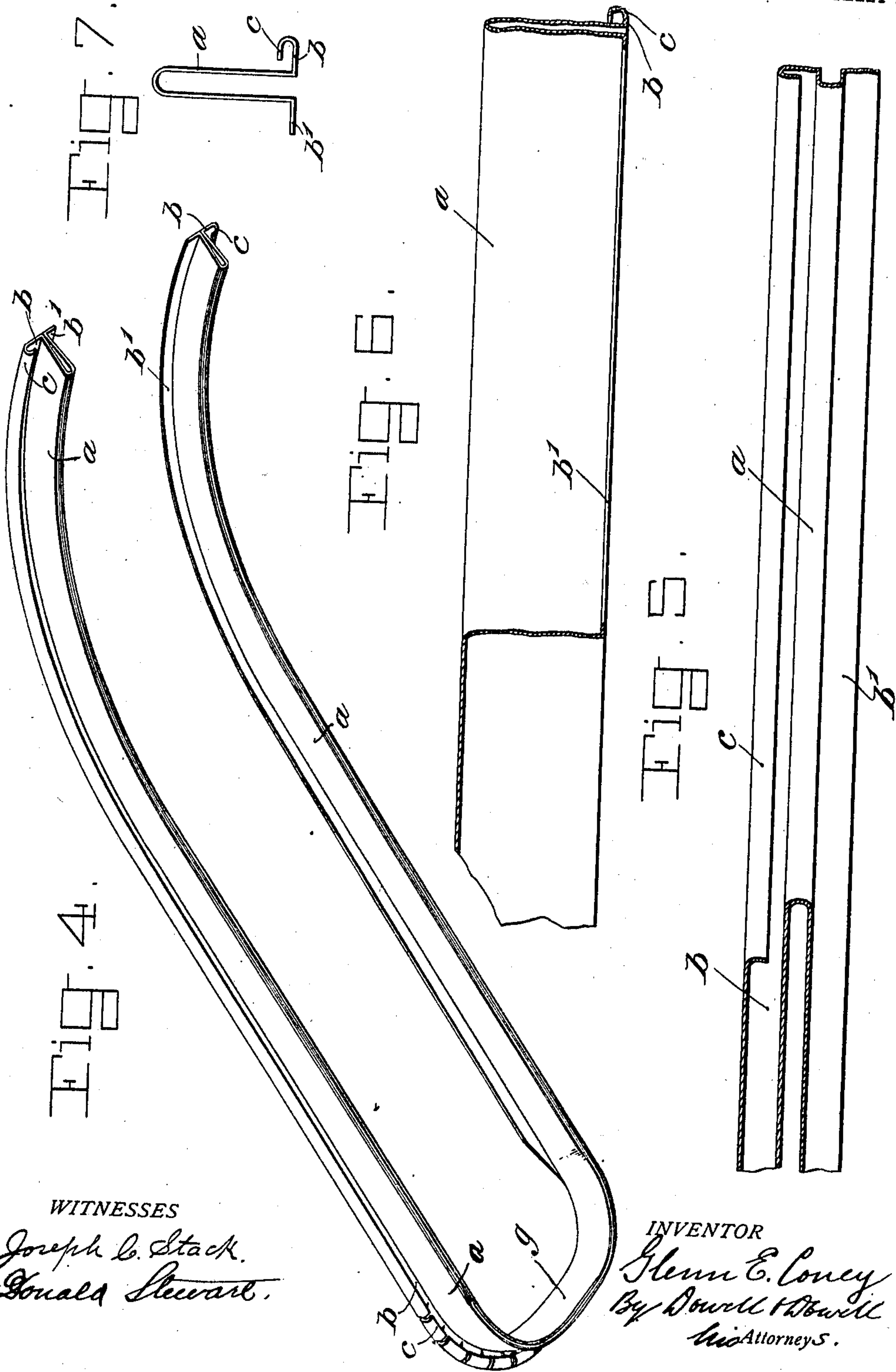
INVENTOR

Glenn E. Coney
My Dowell & Smith
his Attorneys.

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UNITED STATES PATENT OFFICE.

GLENN E. CONEY, OF JACKSON, MICHIGAN, ASSIGNOR TO METAL STAMPING COMPANY,
OF JACKSON, MICHIGAN, A CORPORATION OF MICHIGAN.

AUTOMOBILE-FENDER.

970,309.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed January 12, 1910. Serial No. 537,740.

To all whom it may concern:

Be it known that I, GLENN E. CONEY, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Automobile-Fenders, of which the following is a specification.

My invention relates to mud-guards or fenders for vehicles, more especially for automobiles, and consists in the improvement substantially as hereinafter described with reference to the accompanying drawings and more particularly pointed out in the claims annexed to this specification.

In said drawings: Figure 1 is a perspective view of a fender embodying my invention, looking at its under side. Fig. 2 is a cross-section thereof on a larger scale. Fig. 3 is a cross-section through the yoke-like bend at the end of the fender. Fig. 4 is a perspective of the fender flange. Fig. 5 is a plan view of a section of the straight channel rail from which the fender flange is made; said rail being partly broken away. Fig. 6 is a side view of the same, partly broken away. Fig. 7 is an end view of said channel rail.

The fenders of automobiles are usually made of sheet metal stiffened with flanges on the under side. Some fenders are made with angle iron flanges. Angle iron makes a good stiff fender but it is too heavy, especially for a one inch flange. On certain other fenders the flange is made of a strip of sheet steel cut in a curved pattern to conform to the curvature of the fender, to the edge of which it is secured by wiring, that is the strip is provided with a turned edge containing a wire around which the edge of the fender is secured. This style of flange offers no support, in fact does not stiffen the fender appreciably, if at all, and is put on merely for looks, to make a finished appearance.

Now I have provided a fender flange *a* constructed as a channel rail formed from sheet metal, preferably strip steel; that is the flange is made from straight strip metal drawn or formed double into channel rail form. The sheet steel in the flat being cut into strips, such strips are placed in a press and formed up into shape; making a straight rail as shown in Figs. 5 to 7. Then the rail is or may be put into a bending machine and given the desired configuration to conform to the curvature of the fender; the rail con-

structed as described being capable of being bent both edgewise and laterally as required. This fender flange or rail *a*, formed with outwardly-bent feet or lateral flanges *b*, *b'* making a base to set against the under face of the fender, may be secured to the fender by beading or otherwise, as by a double seam, riveting or soldering, but preferably by the method of wiring already understood in this art. For which purpose one of the base feet *b* of the rail is provided with a turned edge *c* to receive a wire *d*, this turned edge being on the outer side of the fender flange. The edge *c* is snugly pressed around said wire, and the same is then slipped within a similar turned edge *e* of the fender *f*, whereupon the edges of the fender are bent snugly around the wire, and both parts are thus secured together. The inner foot *b'* of the fender flange is not essential, but it gives greater strength and rigidity to the structure, providing a wider base for the flange.

Where the fender flange is bent laterally to form the yoke-like curve *g* at the end of the fender, the inner foot *b'* is preferably cut away as shown, while the outer foot *b* is slit transversely at intervals to permit the expansion of the metal incident to such curve; and at the same curve a wire *h* is or may be inserted in the ridge or bend of the channel rail and secured therein by bringing the double walls of the rail close together; whereas along the longitudinal runs of the fender flange the channel rail has its double walls spaced for greater strength. The advantages of this style of flange are numerous. In the first place, automobile manufacturers are aiming to reduce the weight of their cars as much as possible. Angle iron, as said before, makes a stiff fender but a very heavy one, and is adopted only for the cheaper class of cars and then only $5/8$ angle is used which makes a very narrow flange. Then again, where strip steel flanges are used as hereinbefore mentioned, besides being of little or practically no value for stiffening the fender, the expense of making them is of considerable importance, as the manufacturer is required to cut out patterns for each style or shape of fender, lay these patterns on the sheets of steel from which the flanges are to be made, mark them out by hand, and cut them out by hand. This takes time and wastes stock.

My construction enables the fender flanges

to be cut in straight strips of steel, which can be done on the squaring shears at a very rapid rate. Then they go to the press and are formed up, after which they go to the bending machine which gives them any formation desired. This is all machine work and is very rapid. Moreover the channel rail form of the flange makes a stiff, rigid structure, so that by my improvement I attain the advantages of lightness with stiffness and strength, and provide a mechanically and commercially practicable construction of fender.

I claim as my invention and desire to secure by Letters Patent:

1. A fender flange made from straight strip metal drawn or formed double into channel rail form and adapted to be bent to conform to the curvature of the fender, substantially as described.

2. A fender flange made from straight strip metal drawn or formed double into channel rail form and having a foot provided with a turned edge for wiring to a fender, substantially as described.

3. A fender provided with a flange consisting of a channel rail made from straight strip metal drawn or formed double, the rail being formed with a flat base which is rigidly attached on the face of the fender.

4. A sheet metal fender provided with a flange which consists of a channel rail made from straight strip metal drawn or formed double, the base of the channel rail having

a lateral foot secured to the marginal portion of the fender by bending the edge of one around the other.

5. A sheet metal fender provided with a flange which consists of a channel rail made from straight strip metal drawn or formed double, the base of the channel rail having a lateral foot or flange joined to the marginal portion of the fender by a wire placed in a turned edge of said foot and around which the edge of the fender is turned.

6. A fender flange made from straight strip metal drawn or formed double into channel rail form, the flange having a yoke-like bend at which a wire is inserted in the ridge of the channel rail and the walls thereof are brought together to secure said wire.

7. A fender flange made from straight strip metal drawn or formed double into channel rail form and having its base formed with opposite lateral feet or flanges one of which is provided with a turned edge for wiring to a fender, while the other is adapted to provide an abutment against the surface of the fender, substantially as described.

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

GLENN E. CONEY.

Witnesses:

M. L. CORBETT,
D. R. TARBELL.