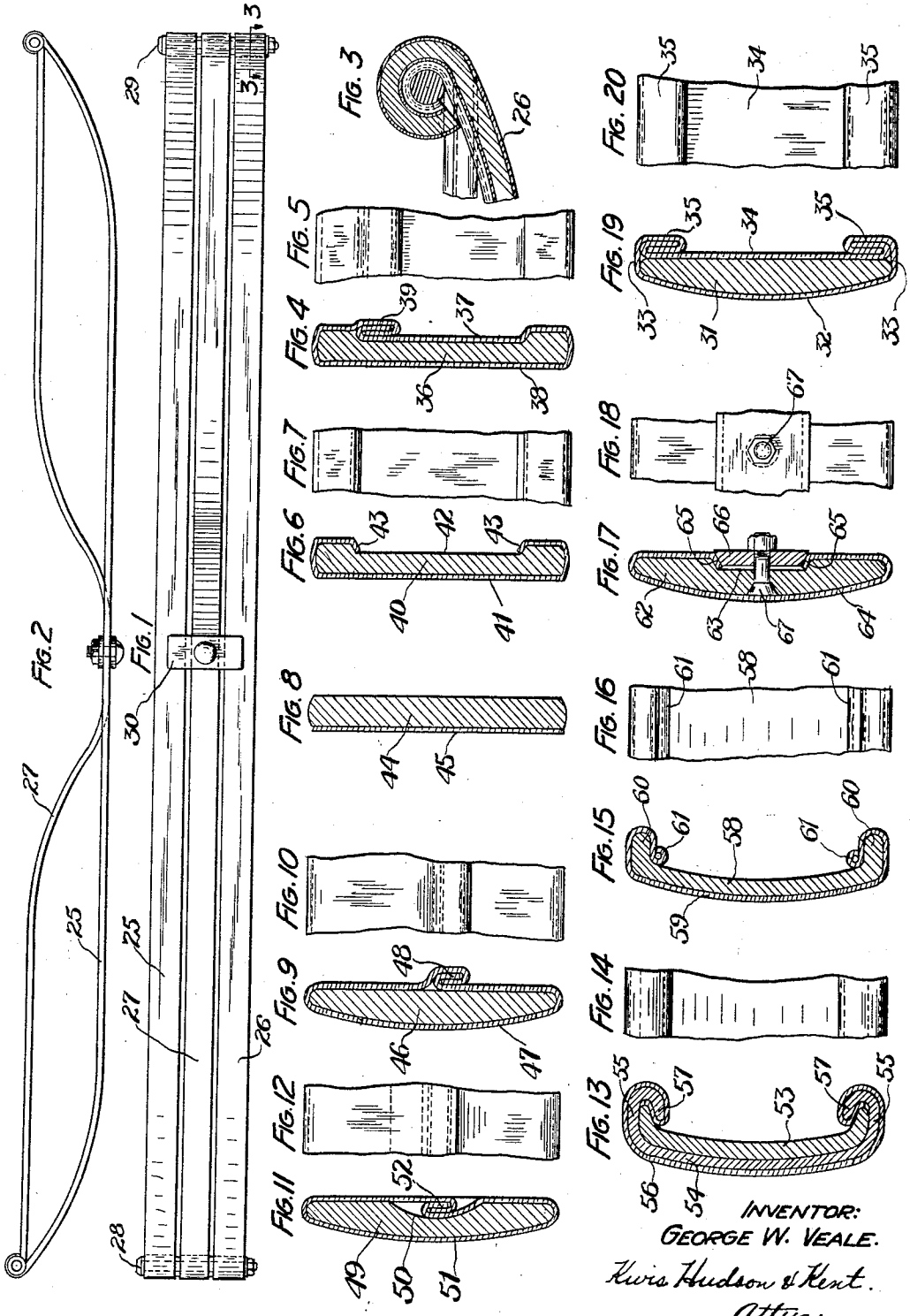
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BUMPER

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BUMPER

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This invention relates to bumpers for automobiles and more particularly to means for providing an ornamental and protective covering for the impact bars of the bumper.

Bumpers are commonly constructed of spring steel bars, one or more of which may be the impact bars which are usually supported by a rear bar that is secured to the frame of the automobile. It has been customary to provide the impact bars with an ornamental and protective coating in the form of nickel or chromium plating and recently the trend has been toward chromium plating. One objection to nickel plating is that it tarnishes easily with the result that the bumper, in a short time, takes on a more or less objectionable appearance. One objection to chromium plating has been that it is readily attacked and removed by the salts that are commonly used, in winter, in the cold climates for the purpose of melting snow in the streets.

It is the object of the present invention to provide a bumper with impact bars having an exposed surface of stainless steel or, as it is sometimes called, rustless iron. This material is too costly to be used in bar form and it is the object of the present invention to get the benefit of the stainless steel surface on the bumper bars by providing them with a covering of relatively thin stainless steel which will be so applied that the bars may be bent to shape and otherwise fabricated notwithstanding the presence of the sheathing.

Other objects of the invention and the features of novelty will be apparent from the following description taken in connection with the accompanying drawing, of which

Figure 1 is a front elevation view of a common form of automobile bumper;

Fig. 2 is a plan view thereof;

Fig. 3 is an enlarged section on the line 3—3, of Fig. 2, showing the manner in which the eye of the sheathed bar is formed;

Fig. 4 is a transverse section of an impact bar having the sheathing thereon in accordance with my invention and illustrating one method of securing the sheathing;

Fig. 5 is a fragmentary elevation of the rear face of the bar shown in Fig. 4;

Fig. 6 is a view similar to Fig. 4 but showing another method of applying the sheathing;

Fig. 7 is a fragmentary elevation of the rear face of the bar shown in Fig. 6;

Fig. 8 is a transverse section of an impact bar having a strip of stainless steel welded to the front face thereof;

Fig. 9 is a transverse section of an impact bar having the stainless steel sheathing thereon and illustrating another method of securing the sheathing;

Fig. 10 is a fragmentary elevation of the rear face of the bar shown in Fig. 9;

Fig. 11 is a view similar to Fig. 9 but showing still another method of applying the sheathing;

Fig. 12 is a fragmentary elevation of the rear face of the bar shown in Fig. 11;

Figs. 13 and 14 are views similar to Figs. 11 and 12, respectively, but showing still another form of impact bar having the sheathing thereon;

Figs. 15 and 16 are views similar to Figs. 13 and 14, respectively, but showing still another form of impact bar and method of applying the sheathing;

Figs. 17 and 18 are views similar to Figs. 11 and 12, respectively, but showing still another method of applying the sheathing to the impact bar; and

Figs. 19 and 20 are also views similar to Figs. 11 and 12, respectively, and showing a further method of applying the sheathing to the impact bar.

Referring to Figs. 1 and 2, the bumper there illustrated comprises two impact bars 25 and 26, each of which is provided with eyes at its ends. The bars 25 and 26 are supported by a rear bar 27 which has eyes at its ends and bolts 28 and 29 secure the ends of the bars 25, 26 and 27 together. The central portion of the bar 27 is bent into the plane of the central portions of the bars 25 and 26 and is secured to the latter bars by any suitable form of clamp 30.

The bars 25 and 26, according to the present invention, are covered by a sheathing of stainless steel in accordance with any of the methods illustrated in Figs. 4 to 20. In Fig.

3 there is illustrated the method of forming a sheathed eye and, in this instance, the sheathing is applied to the bar in the manner illustrated in Figs. 19 and 20. According to the construction illustrated in Figs. 19 and 20, a spring steel bar 31 has a strip of stainless steel 32 applied to the front face thereof, the edge portions of the strip 32 being bent rearwardly over the edges of the bar 31, as indicated at 33. On the rear face of the bar 31 there is another strip of steel which may be either stainless steel or ordinary cold rolled steel, 34, the edge portions of which are interlocked with the edge portion of the strip 32 as indicated at 35, and it will be noted in thus interlocking the edges of these two strips and bending the same against the rear face of the strip 34, the strip 32 will be tightly stretched across the face of the bar 31.

In the form of invention illustrated in Figs. 4 and 5, a spring steel bar 36 has a relatively wide groove 37 in its rear face and a strip of stainless steel 38 is bent around the front and rear faces of the bar 36 and has its edges interlocked, as indicated at 39, so as to tightly secure the strip to the bar 36. The sheathing 38 is pressed into the groove 37 and by turning the seam 39, as shown in Fig. 4, the sheathing will be tightly stretched on the bar.

In the form of the invention illustrated in Figs. 6 and 7, the spring steel bar 40 is similar to the bar 36 but the stainless steel sheathing 41 has its edges simply bent around into the groove 42, as shown at 43.

In the form of the invention illustrated in Fig. 8, the spring steel bar 44 has a strip of stainless steel 45 applied to its front face by welding by any of the well known methods.

In the form of the invention illustrated in Figs. 9 and 10, the spring steel bar 46 is shown as similar, in cross-section, to the bar 31 but, in this case, there is a single strip of stainless steel sheathing 47 which has its edges interlocked along the middle of the rear face of the bar 46, as indicated at 48.

In the form of the invention illustrated in Figs. 11 and 12, the spring steel bar 49 has a curved front face the same as the bar 46 but is provided with a groove 50 in its rear face. In this case, the stainless steel sheathing 51 is applied in substantially the same manner as shown in Fig. 9 with the exception that the lock seam 52 is arranged in the groove 50 so that there will be no projecting rib on the bar, as this is present in the construction illustrated in Fig. 9.

In the construction illustrated in Figs. 13 and 14, a channel bar 53 is reinforced by a soft steel strip 54 which has its edge portions turning over the flanges of the bar 53, as indicated at 55. The strip 54 has a facing of stainless steel 56, the edge portions of which are bent around the edges of the strip 54 and secured by crimping the edges of the strip 54 on the flanges of the bar 53, as indicated at 57.

In the form of the invention illustrated in Figs. 15 and 16, a channel shaped spring steel bar 58 is sheathed with a strip of stainless steel 59, the edge portions of which are bent around the flanges 60, of the bar 58, and provided with stiffening and securing beads 61.

In the form of the invention illustrated in Figs. 17 and 18, the spring steel bar 62 has a groove 63 in its rear face and the sheathing of stainless steel 64 is wrapped around the bar 62 and has its ends turned into the groove 63, as indicated at 65. A clamping strip 66 engages the edge portion 65 of the strip 64 and is secured by means of bolts 67 which extend through the bar 62 and the strip 66 at intervals therealong, the bolts 67 preferably having countersunk heads which are concealed by the stainless steel strip 64 as will clearly appear from Fig. 17.

While I have described and illustrated what I now consider to be the preferred forms of my invention, these forms are susceptible of modification as to details without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A bumper bar formed of spring steel and having a longitudinally extending channel in its rear face and said bar being sheathed in a covering of stainless steel the longitudinal edges of which are interlocked in said channel.

2. A bumper bar formed of spring steel and sheathed in a covering of stainless steel, said covering consisting of two strips extending longitudinally of the bar and positioned against the front and rear faces respectively and the longitudinal edge portions of one of said strips being folded over the edge of said bar and interlocked with the edges of said other strip.

3. A bumper bar formed of spring steel and sheathed in a covering of stainless steel, said covering consisting of two strips extending longitudinally of the bar and positioned against the front and rear faces respectively and the longitudinal edge portions of one of said strips being folded over the edge of said bar and interlocked with the edges of said other strips, and said bar having eyes at its ends which are sheathed interiorly and exteriorly with said covering.

In testimony whereof, I hereunto affix my signature.

GEORGE W. VEALE.