Aug. 14, 1928. 1,680,500

W. A. COTES

TEMPLATE

Filed Aug. 20, 1927 2 Sheets-Sheet 1

Fig. 3.

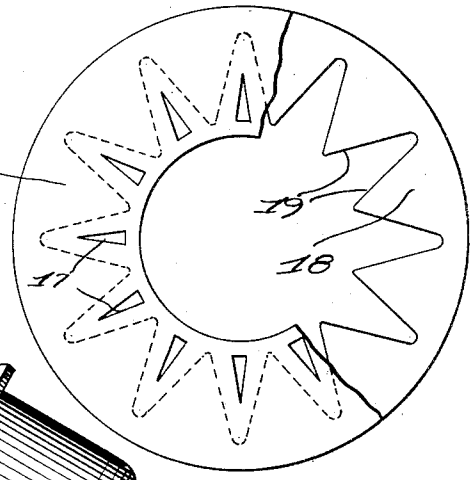
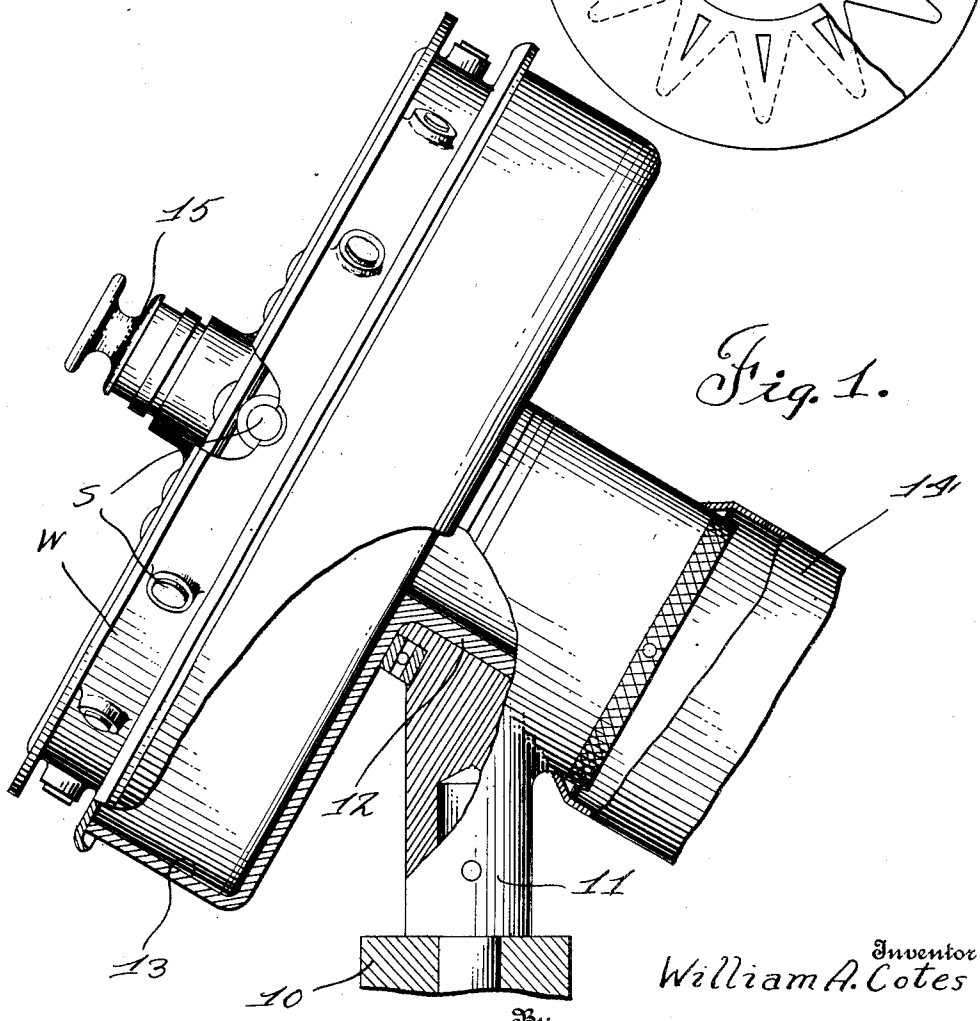


Fig. 1.



Inventor
William A. Cotes

By
Whittemore Hulbert
Whittemore & Belknap

Attorneys

Aug. 14, 1928. 1,680,500

W. A. COTES

TEMPLATE

Filed Aug. 20, 1927 2 Sheets-Sheet 2

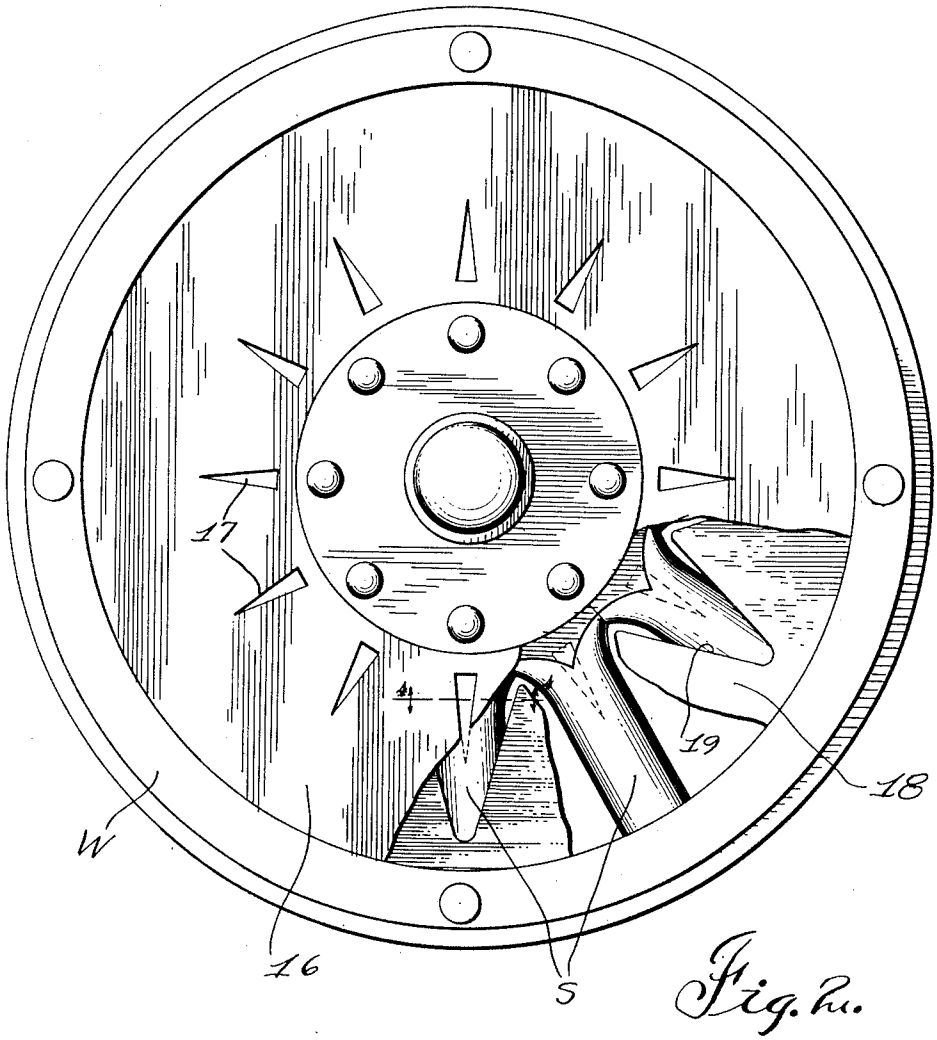


Fig. 2.

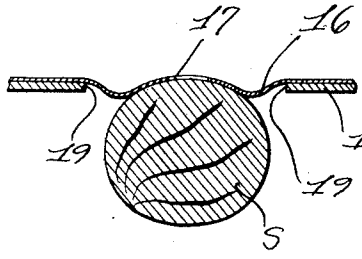


Fig. 1.

Inventor
William A. Cotes

By Whittemore Hulbert
Whittemore & Belknap

Attorneys

Patented Aug. 14, 1928. 1,680,500

UNITED STATES PATENT OFFICE.

WILLIAM A. COTES, OF LANSING, MICHIGAN, ASSIGNOR TO REO MOTOR CAR COMPANY, OF LANSING, MICHIGAN, A CORPORATION OF MICHIGAN.

TEMPLATE.

Application filed August 20, 1927. Serial No. 214,419.

This invention relates to templates and more particularly to improvements therein and in the method and means employed for holding the template in place with reference to the work.

While, as this description proceeds, it will be readily apparent that this invention finds utility in various other connections, nevertheless, one adaptation of the invention in which special advantages are realized is its use in connection with spraying wheels and the like. Heretofore, it has been quite generally the practice to employ a sheet metal template but in practice it has been found that the template does not always engage the work piece sufficiently tightly and as a consequence the paint crawls under the template and spoils the work. Furthermore when templates are employed made of metal or other material of a permanent nature and consequently relatively expensive, the templates can not be discarded after being used a few times but, on the other hand, must be frequently washed to fit them for continued use.

It is, therefore, one of the primary objects of this invention to provide a template of a relatively flexible material which will be drawn tightly against the work by the vacuum customarily employed for holding the template in place. The present invention proposes forming the template of paper or other similar flexible inexpensive material so that after the template has been used several times it may be thrown away.

The invention also contemplates the use of a template support formed of a relatively non-flexible or stiff material such as metal. This template support is interposed between the template and work piece and is provided with perforations or apertures coincident with but larger than the apertures in the template. Thus the paper template is prevented from being drawn through the work piece but the vacuum will draw the edges of the template surrounding the apertures through the apertures in the supporting member and tightly into engagement with the work piece.

The several objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawings wherein:

Figure 1 is a view partly in side elevation and partly in section of a wheel spraying fixture with my invention associated therewith.

Figure 2 is a front elevation of the structure illustrated in Figure 1 with certain parts broken away.

Figure 3 is an elevational view of the template and template support removed from the fixture, and

Figure 4 is a detail sectional view taken substantially on the plane indicated by line 4—4 in Figure 2.

Referring now more particularly to the drawings wherein like reference characters indicate like parts and wherein the invention is illustrated as used in connection with apparatus for spraying vehicle wheels, it will be noted that there is illustrated a work holding fixture consisting of a standard 10 having an upright 11 in which the hub 12 of a work holding member 13 is journaled. The reference character 14 indicates fragmentarily a pipe connected to a source of vacuum so that a vacuum exists within the fixture or work holder 13. The work piece illustrated herein is a wheel W, the spokes S of which are to be decorated. The work piece is mounted upon the work holder, as most clearly illustrated in Figure 1, by locating the rim of the wheel upon the edge of the work holder and securing the same in place by means of a removable plug 15 engageable with the hub of the wheel.

The reference character 16 indicates the template and I propose making this template of an inexpensive, relatively flexible or pliable material such as paper or the like. The template is formed with a plurality of apertures 17 which are adapted to be brought into registration with the spokes S of the wheel so that when the wheel is sprayed, correspondingly shaped decorations will be painted upon the wheel as shown in Figure 2. Interposed between the template 16 and the work piece is a template support 18 which consists of a sheet or disk of relatively non-flexible or stiff material. I have found that sheet metal is a satisfactory ma-

terial from which the template support may be made. The template support is provided with a plurality of apertures 19 which correspond in number and are arranged coincident with the template apertures 17. However, the apertures 19 in the template support are somewhat larger than the template apertures 17 so that when the template and template support are applied, the vacuum will draw the edges of the template surrounding the apertures 17 through the apertures 19 in the support and tightly into engagement with the spokes S. Thus when the wheel is sprayed the paint will not crawl under the template thus preventing the production of a ragged edge or making the work otherwise unsatisfactory. The manner in which the paper template is drawn into engagement with the work piece is illustrated most clearly in Figure 4.

In practice the wheel W is placed upon the fixture and the template support 18 and a template 16 are then placed in position. The fixture together with the wheel is then given a rotary movement and the spraying gun is held in position whereupon the paint is sprayed upon the template and through the template apertures 17 upon the spokes of the wheel. As previously mentioned the accurate engagement between the template around the edges of the template openings with the spokes prevents the crawling of paint under the template. After a template has been used two or three times it may be thrown away owing to the inexpensive nature of the same. This eliminates the need of constantly washing the template which is necessary when templates of a more permanent nature and consequently more expensive is employed.

While an embodiment of the invention has been described and illustrated herein somewhat in detail it will be readily apparent to those skilled in this art that various changes may be resorted to without departing from the spirit and scope of this invention and to this end reservation is made to make such changes as may come within the purview of the accompanying claims.

What I claim as my invention is:—

1. In an apparatus of the character described, the combination with a work piece and a source of vacuum, of a flexible template held in place on said work piece by said vacuum.

2. In an apparatus of the character described, the combination with a work piece and a source of vacuum, of a flexible template and a backing of non-flexible material held in place on said work piece by said vacuum.

3. In an apparatus of the character described, the combination with a work piece and a source of vacuum, of a perforated backing member engaging said work piece and a flexible template engaging said backing member and held in place by said vacuum.

4. In an apparatus of the character described, the combination with a perforated work piece and a source of vacuum, of a flexible template held tightly against said work piece by said vacuum and means constituting a backing for said template to prevent the same from being drawn through said work piece.

5. In an apparatus of the class described, the combination with a holder for the work piece and a source of vacuum, of a flexible template and a non-flexible support interposed between the template and work piece and held in place by said vacuum.

6. In an apparatus of the class described, the combination with a holder for the work piece and a source of vacuum, of a flexible template and a non-flexible support therefor provided with perforations through which the template is drawn by the suction into engagement with the work piece.

7. In a device of the class described, the combination with a work holder adapted to receive a wheel or the like and a source of vacuum, of a template support engageable with said wheel and a template of flexible material superposed on said support, said support and template being held in place by said vacuum.

8. In a device of the class described, the combination with a work holder adapted to receive a wheel or the like and a source of vacuum, of a template support resting on said wheel and a paper template superposed on said support and held in place by said vacuum.

9. In a device of the class described, the combination with a work holder adapted to receive a wheel or the like and a source of vacuum, of a template of paper or the like and a support therefor formed of metal or the like resting on said wheel and provided with perforations through which said template is drawn by said suction into engagement with said wheel.

10. In a device of the class described, a holder for a work piece, a source of vacuum associated therewith, a paper template and a template support formed of a relatively non-flexible material and provided with perforations coincident with but larger than the perforations in said template through which the template is drawn by said vacuum into engagement with said work piece.

In testimony whereof I affix my signature.

WILLIAM A. COTES.