

Feb. 20, 1923.

1,446,420

J. M. GOUBIER

SCRAPING DEVICE

Filed Aug. 14, 1920

3 sheets-sheet 1

Fig. 1.

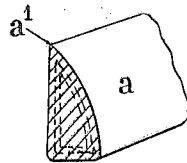


Fig. 2.

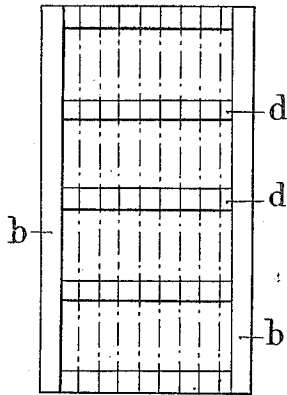


Fig. 3.

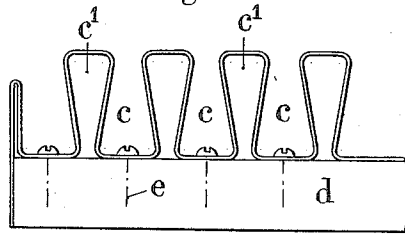


Fig. 4.

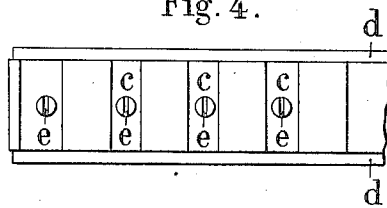


Fig. 5.

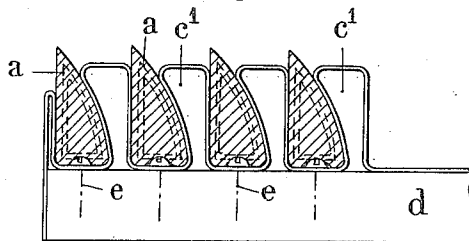
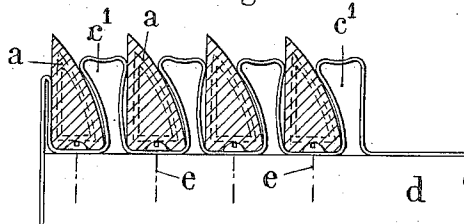


Fig. 6.



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Fig. 7.

Fig. 9.

Fig. 10.

Fig. 12.

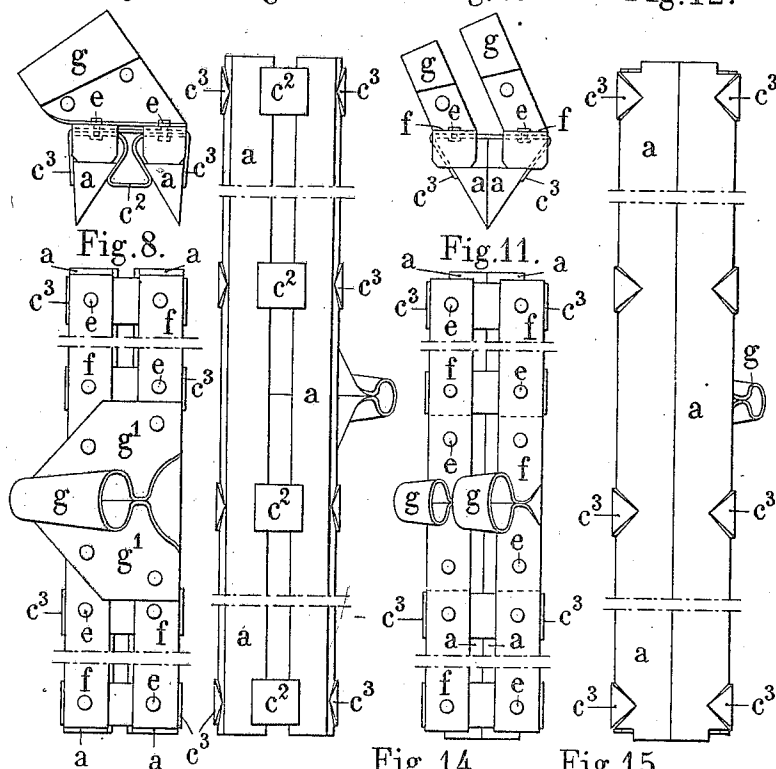


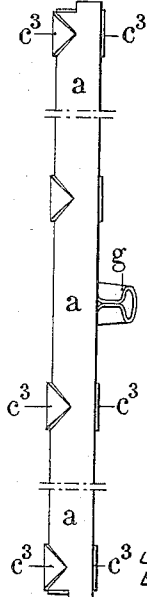
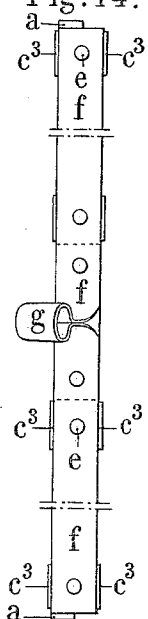
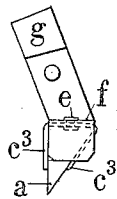
Fig. 8.

Fig. 11.

Fig. 14.

Fig. 15.

Fig. 13.



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Fig. 18.

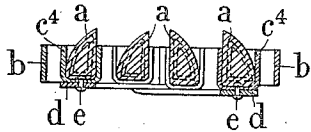


Fig. 20.

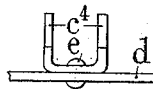


Fig. 19.

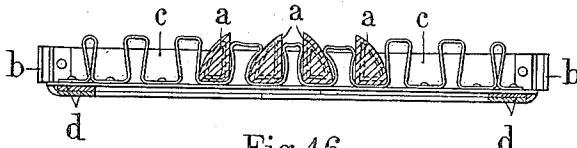


Fig. 21.

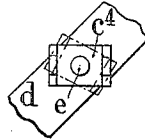


Fig. 16.

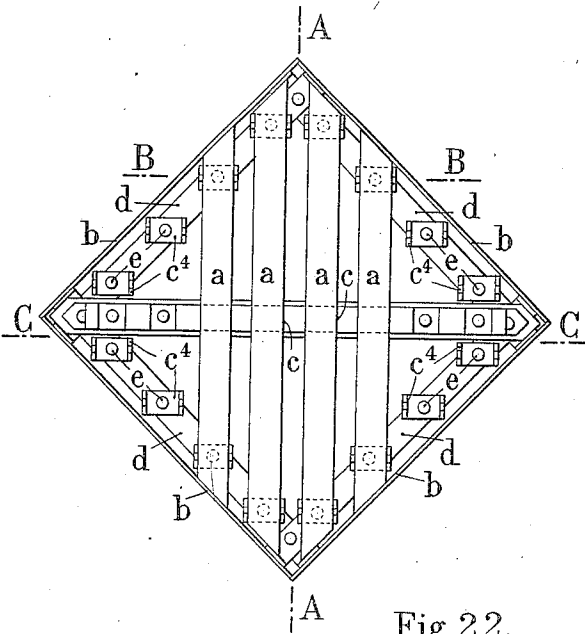


Fig. 17.

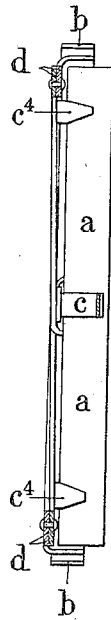
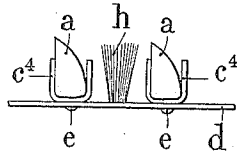


Fig. 22.



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# UNITED STATES PATENT OFFICE.

JEAN MARIE GOUBIER, OF AULNAY SUR MAULDRE, FRANCE.

## SCRAPING DEVICE.

Application filed August 14, 1920. Serial No. 403,554.

*To all whom it may concern:*

Be it known that I, JEAN MARIE GOUBIER, of Usine de la Chaussee par Aulnay sur Mauldre, Seine and Oise, France, manufacturer, have invented Scraping Devices, of which the following is a full, clear, and exact description.

This invention has for its object a scraping device applicable as carpet-scraper and as scraper-tool.

The said invention is adapted for the production of scraper-carpets or of scraper-tools constituted by independent elements made of rubber and canvas and forming scrapers.

These scraping devices are characterized by elements constituted by means of beads of pneumatic covers of wheels detached from these covers when the latter are worn off, the beads being still intact and have not been used up to now.

The elements thus obtained each have a sharp scraping edge and are arranged on a carrier so that the working part should be the acute angle they naturally present, on the side opposite to their cutting off line.

The devices serving to secure these elements on their carrier are constituted by holders the sides of which are suitably drawn together after placing these elements in position, so as to thus obtain an energetic clamping of the latter.

The carriers of the said elements are integral with a frame, laid flatwise if the whole constitutes a scraper-carpet, or which receives a socket for a handle if the whole constitutes a scraper-tool.

If the whole constitutes a scraper-carpet, the latter is very efficient owing: 1° to the sharp edge of the element; 2° to the suppleness of the edge and its elasticity which permits this edge to take the shape of the sole of a boot and to act consequently on all the points of the surface of the said sole without any risk of damaging the latter. It is also to be noted that the carpet, whilst being supple and elastic, offers, from this fact, a comfortable or agreeable impression to the foot.

These elements can also be combined with lines of brushes interposed between them.

The invention will be described in detail hereafter with reference to the accompanying drawing, in which:

Fig. 1 is a perspective view of a part of one of the scraping elements made of rubber

and canvas constituting the said scraping device.

Fig. 2 is a plan view of a frame for securing the said elements.

Fig. 3 shows apart, in elevation, one of the cross-bars of the above frame.

Fig. 4 is a plan view corresponding to Fig. 3.

Fig. 5 is an elevation of a part of a cross-bar provided with the said elements before securing the latter.

Fig. 6 is a view corresponding to Fig. 5, but after the elements have been secured in position.

Fig. 7 is a side view of a first form of scraper-tool obtained with the said elements.

Fig. 8 is a plan view thereof.

Fig. 9 is a view from underneath.

Fig. 10 is a side view of a second form of scraper-tool.

Fig. 11 is a plan view thereof.

Fig. 12 is a view from underneath.

Fig. 13 is a side view of a third form of scraper-tool.

Fig. 14 is a plan view thereof.

Fig. 15 is a view from underneath.

Fig. 16 is a plan view of a carpet obtained by means of the said elements.

Fig. 17 is a section made according to line A—A of Fig. 16.

Fig. 18 is a section made according to line B—B of Fig. 16.

Fig. 19 is a section made according to line C—C of Fig. 16.

Fig. 20 shows apart, in elevation, a modification of holder.

Fig. 21 is a plan view of the holder shown in Fig. 20, the dot and dash lines indicating the displacement.

Fig. 22 is a side view of a modification of the carpet obtained with these elements.

As illustrated in the drawing, Figs. 1 to 6, this scraping device comprises elements *a* made of rubber and canvas and having two plane right angularly disposed faces and a convex face, one of the plane faces meeting the convex faces to form a sharp scraping edge. These elements are constituted by means of beads cut out in a band from the covers of pneumatic tires of wheels when these covers are worn off, the beads being still intact and have not been used up to now.

The working part of these elements is the acute or sharp angle *a'* they naturally pre-

sent on the side opposite to the cutting of the line separating them from the remainder of the cover.

These elements, cut according to the length of the frame *b*, which is preferably of rectangular shape, are secured by holders *c* arranged on wooden or iron cross-bars *d* forming part of this frame.

These holders *c* can be formed by means of an iron band or strip suitably folded and secured on the cross-bars *d* by nails, rivets or screws *e*. Each of the folds constitute a loop *c*<sup>1</sup> and two consecutive loops form the sides of the holder *c* provided between them.

The elements *a* are fitted in the holders *c*, as shown in Fig. 5, and then secured by slightly depressing the head of the loops *c*<sup>1</sup> for thus obtaining a clamping of both sides of the holder by raising in the latter on the element, as shown in Fig. 6.

Figs. 7 to 9 illustrate a first form of scraper-tool comprising two elements or scrapers *a* turned in reverse direction to each other and held by transverse loops *c*<sup>2</sup> forming cross-pieces. Moreover, these strip iron loops are secured by rivets *e* on holders *c*<sup>3</sup> the ends of which are folded down for forming claws and clamping the sides of the rubber elements *a*.

Four similar loops *c*<sup>2</sup> and four holders *c*<sup>3</sup> for instance are provided on the length of the elements and all these loops and holders are connected by the rivets *e* to two parallel strips *f* folded down at the ends on the rubber elements *a*.

The whole formed by the loops *c*<sup>2</sup>, the holders *c*<sup>3</sup> and the strips *f* constitutes the back of the scraper-tool and this back receives the socket *g* for the handle.

This socket constituted by a sheet iron member is shaped in such a manner as to form lugs *g*<sup>1</sup> which are riveted on the back of the scraper-tool.

The second form of scraper-tool illustrated in Figs. 10 to 12, comprises two juxtaposed elements *a* turned back to back. These two elements are connected together by means of holders *c*<sup>3</sup> forming claws.

Longitudinal strips *f* connect all the holders and are secured on the latter by means of rivets *e*; moreover, the said strips are folded down at their ends and suitably shaped for constituting a socket *g* for the handle of the scraper-tool.

Figs. 13 to 15 illustrate a modification of the scraper-tool comprising a single element *a*. Holders *c*<sup>3</sup> forming claws connect this element, by means of rivets *e*, to the back constituted by a metal strip *f* folded down at its ends. The socket *g* for the handle is formed on the strip *f*.

Figs. 18 to 21 illustrate elements *a* secured by independent holders *c*<sup>4</sup> mounted on the cross-bars *d* of the carrier by means of a central rivet *e*.

This method of mounting allows of arranging the elements *a* in any direction relatively to the frame *b*, the acute or sharp angle of these elements being, of course, always turned on the working side.

The sides of the independent holders are folded down on the two side faces of these elements *a*, so as to tightly hold the latter.

The independent holders *c*<sup>4</sup> can be combined with the holders *c*, as in Fig. 19.

As shown in Fig. 22, special brushes could be interposed between the said rubber and canvas elements *a* and secured in any suitable manner on the carrier.

It is to be understood that the elements *a* in the frame *b* can be: parallel to the sides of the frame, diagonally arranged, form triangles, be corrugated, etc.

The forms, details, accessories, materials and dimensions of this scraping device may be varied without departing thereby from the nature of the invention.

#### Claims:

1. A scraping device comprising an element constituted by a prismatic strip of rubber and cloth, having two rectangular plane faces and a convex face, and means for maintaining the said strip so as to leave free one of its edges to form a scraping edge.

2. A scraping device comprising a scraping element constituted by a prismatic strip of yielding material having two unequal rectangular plane faces and a convex face, and means for mounting the said strip with the edge formed by the longer rectangular face and the convex face free to form a scraping edge.

3. A scraping device comprising, scraping elements, each of which is constituted by a prismatic strip of rubber and cloth, having two rectangular plane faces and a convex face, one plane face meeting the convex face to form a sharp edge and means for mounting said strips in spaced relation to one another so as to leave free the sharp edges and spaces between them for the free passage of the scraped off matter.

4. A scraping device comprising, scraping elements each of which is constituted by a prismatic strip of rubber and cloth, having two rectangular plane faces and a convex face, said elements having a sharp edge, holders so shaped as to each present a series of recesses corresponding in shape to the scraping elements in which are clamped the said elements with the sharp edges projecting beyond the holders, and crossbars on which the said holders are fixed.

5. A scraping device, comprising a support, a plurality of yielding scraping elements having two right angular flat surfaces and a convex surface, said elements having a sharp edge and a plurality of holders for the elements secured to the support, each holder having looped portions extend-

ing between adjacent elements and having their connecting members depressed so as to clamp the elements and hold them with their sharp edges projecting beyond the holders.

5 6. A scraping device, comprising a support, a plurality of yielding scraping elements having two flat right angular surfaces and a convex surface, said elements having a sharp edge, strips secured to the support and  
10 having their ends bent into engagement with the ends of the elements, and a plurality of

holders secured to the strips and having loops extending between adjacent elements and having their connecting members depressed so as to clamp the elements and hold  
15 them projecting beyond the holders.

The foregoing specification of my "Scraping device applicable as staircase or door-scraper or as scraper-tool," signed by me this  
23d day of July, 1920.

JEAN MARIE GOUBIER.