March 1, 1927. 1,619,404

L. J. CROWE

FOOT SCRAPER FOR AUTOMOBILES

Filed March 6, 1926

Fig. 1

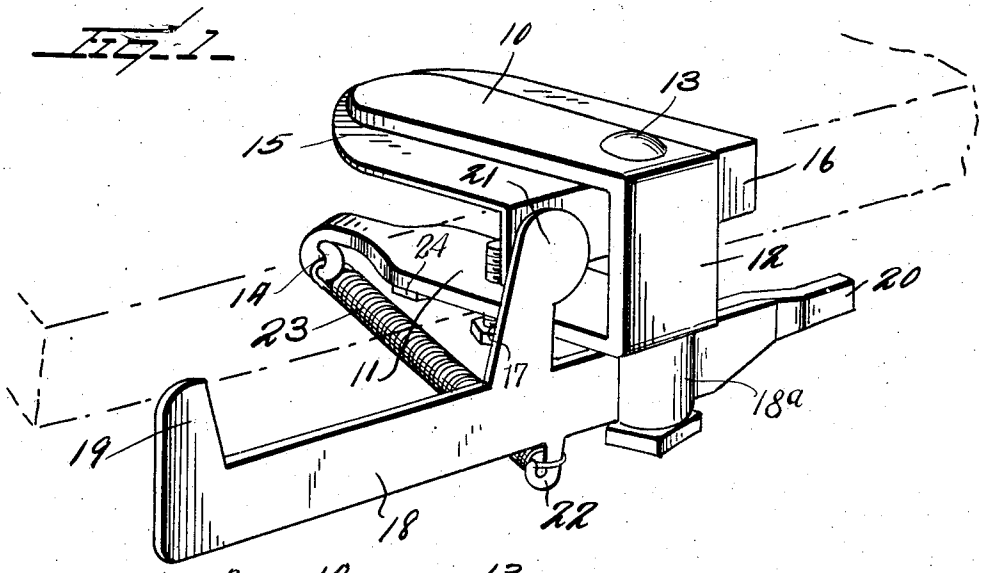



Fig. 2

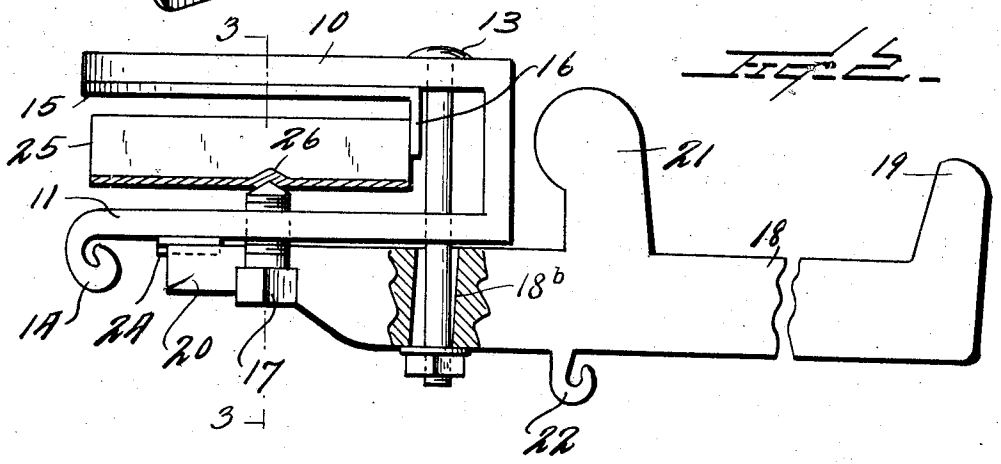
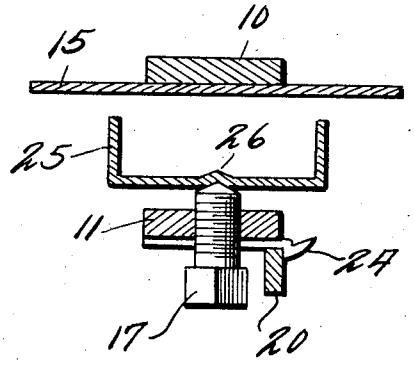



Fig. 3




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# UNITED STATES PATENT OFFICE.

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## FOOT SCRAPER FOR AUTOMOBILES.

Application filed March 6, 1926. Serial No. 92,874.

This invention relates to foot scrapers and particularly to a foot scraper adapted to be applied to the running board of an automobile.

The general object of the invention is to provide a device of this kind which is adapted to be readily applied to running boards and removed therefrom and in which the scraper proper is normally held closely adjacent the running board and in a non-conspicuous position and where it will not project into the way.

A further object is to provide means whereby the scraper is readily swung into its withdrawn position by a spring and to provide means whereby it may be latched into projected position when desired for use.

Other objects will appear in the course of the following description wherein:

Figure 1 is a perspective view of a foot scraper in accordance with my invention;

Fig. 2 is an end elevation thereof, showing the scraper projected;

Fig. 3 is a section on the line 3—3 of Figure 2, showing the tail 20 of the scraper engaged under latch 24.

Referring to these drawings it will be seen that my device comprises a clamp formed of an upper arm 10, a lower arm 11 and the connecting web 12, these arms and web being integral with each other. Passing through the arms 10 and 11, adjacent the web 12 is a bolt 13. The other end of the lower arm 11 is tapered and bent to form a hook 14.

Riveted or otherwise attached to the upper arm 10 is a plate 15, the inner edge of which is downwardly flanged as at 16, so as to fit against the outer edge of the running board. Extending upward from the lower jaw or arm 11 is a set screw 17.

Pivotally mounted upon the bolt 13 is the foot scraper 18, the outer end of which is turned up as at 19. The opposite end of the scraper is continued to form the tail 20. Between the outer end 19 and the pivot bolt 13 the scraper carries upon it the upwardly extending part 21. Below the part 21 the scraper 18 is formed with a hook 22. A contractile spring 23 is attached at one end to the hook 14 and at the opposite end to the hook 22 and acts to turn the scraper in a position parallel to the edge of the running board. When so turned the upwardly extending member 21 which constitutes a stop, strikes against the flange 16 and thus inward or retractile movement of the scraper is limited.

Riveted or otherwise attached to the lower jaw 11 of the clamp and extending at right angles to the longitudinal axis of this jaw or arm is a latch plate 24 and when the scraper is turned to its outwardly projecting position at right angles to the length of the running board, the tail 20 will engage with the latch 24 and the latch will hold the scraper in projected position against the action of the spring 23.

It is to be noted that the scraper has an enlarged portion $18^a$ through which the bolt 13 passes. The bore $18^b$ is larger than the bolt and is illustrated as slightly inclined relative to the bolt to thus permit the scraper 18 to have a slight vertical lateral play upon the bolt 13 and that the spring engaging the scraper below its lower edge may thus tilt the tail end of the scraper upward and thus bring it into engagement with the latch as shown in Figure 3. By reason of the enlarged opening $18^b$ through which the bolt 13 passes, the tail of the scraper will be depressed on engagement with the lower inclined face of this latch plate and be engaged therewith to thereby hold the scraper projected but when it is desired to cause the retraction of the scraper the forward end of the scraper may be raised to tilt the scraper and detach the tail from the latch plate and then the spring will retract the scraper.

The upper and lower jaws 10 and 11, as before remarked, embrace a running board and if the device is to be applied to a wooden running board the set screw 17 bears against the under face of the board or if the device is to be applied to the ordinary thin metal running board, the washer having the form of a section of channel iron, designated 25 is uesd, it bears against the under face of the running board, this washer having an indentation 26 against which the point of the set screw bears.

The use of this device will be obvious from what has gone before. The device is convenient, may be readily applied or removed, does not form an impediment on the running board, and is inconspicuous. Preferably it will be formed of malleable iron.

I claim:—

1. A foot scraper for automobiles including a clamp adapted to embrace the running board of an automobile and be engaged

therewith, a scraper pivotally mounted upon the clamp for movement into a projected position, a spring urging the scraper into a position at right angles to the clamp and parallel to the running board, a stop limiting the movement of the scraper in this direction, means for latching the scraper in a projected position.

2. A foot scraper for the running boards of automobiles comprising a clamp adapted to embrace the running board, a plate attached to the upper jaw of the clamp and having a flange adapted to engage the edge of the running board, a set screw passing through the lower jaw of the clamp, a bolt carried by the clamp, a scraper pivotally mounted upon the bolt and having a stop adapted to bear against the flange of said plate when the scraper is parallel thereto, a spring acting to urge the scraper into this position, and means releasably holding the scraper in its outwardly projected position.

3. A foot scraper for the running boards of automobiles comprising a clamp adapted to embrace the running board, a plate attached to the upper jaw of the clamp and having a flange adapted to engage the edge of the running board, a set screw passing through the lower jaw of the clamp, a bolt carried by the clamp, a scraper pivotally mounted upon the bolt and having a stop adapted to bear against the flange of said plate when the scraper is parallel thereto, a spring engaged at one end with the scraper and at its other end with the lower jaw and acting to urge the scraper to a position at right angles to the clamp, and a latch attached to said clamp and releasably engaging the scraper to hold the latter in a projected position.

4. A foot scraper for automobiles including a member adapted to be engaged with the running board of the automobile, a scraper pivotally mounted upon the member for movement in a horizontal plane from a position parallel to the running board to a position at right angles thereto or vice versa, a spring urging the scraper into a position parallel to the running board and means for latching the scraper in a projected position.

5. A foot scraper for the running boards of automobiles comprising a member adapted to be engaged with the running board, a vertical bolt carried by said member, a scraper having a bore, through which said bolt passes to thereby support the scraper for movement in a horizontal plane around the bolt, the bore being larger than the bolt to thereby permit the scraper to tilt upon the bolt in a vertical plane, a spring acting to urge the scraper into a position parallel to the running board, and a latch mounted upon said member and adapted to hold the scraper in its outwardly projected position, said latch having a depressed detent end, said spring acting to tilt the scraper, and yieldingly hold it in engagement behind said detent end.

In testimony whereof I hereunto affix my signature.

LEROY J. CROWE.