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COMPLETE SPECIFICATION.

Improvements relating to Mudguards for Cycles or Motor-Cycles.

We, NORTON MOTORS LIMITED, a British Company, of Bracebridge Street, Birmingham 6, and RICHARD McCANDLESS, a British Subject, of 60, Lisburn Road, Belfast, Northern Ireland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to improvements in mudguards for cycles or motor-cycles and more particularly to mudguards for the front wheels of motor-cycles.

The mudguard for the front wheel of a motor-cycle is usually carried forwardly for some distance in front of the vertical plane containing the wheel axis, the forward part curving downwardly to follow the contour of the wheel and usually having on each side a side wing which may extend for the whole length of the mudguard.

When the machine is running on wet roads water and mud picked up by the wheel tyre are continuously thrown off from the top of the wheel in an upward and forward direction against the inner surface of the mudguard, and the water and mud are driven forwardly to the front edge of the mudguard from which they are blown off over the machine and its rider.

Various proposals have been made for preventing or minimising splashing of mud from mudguards. One proposal was to fix a flat transverse baffle plate under the wing of a car adjacent to its front end, but mud intercepted by such a baffle would drip off its lower edge back on to the surface of the wheel. Another proposal was to fix two inwardly extending longitudinal metal strips to the inside of a cycle mudguard, the strips being curved towards each other to define an inwardly facing channel to receive and drain off mud. Yet another proposal was to provide a car wing with a lining of perforated material substantially parallel to but spaced from the inside of the

wing to break up mud thrown upwardly by the wheel, the lining in some cases being combined with one or more transverse baffles of perforated material.

According to our invention there is provided on the inner surface of the mudguard adjacent to its front end a curved transverse baffle or deflector of which the upper edge fits closely against the surface of the mudguard and of which the ends are extended rearwardly and downwardly along the mudguard so that water and mud driving forwardly over the inner surface of the mudguard are intercepted and deflected rearwardly until they reach a downwardly and rearwardly falling part of the mudguard and drain on naturally down to the bottom of the mudguard.

Our invention further comprises a deflector for fitting to the underside of the front mudguard of a motor cycle consisting of a metal strip of curved or U outline with its upper edge shaped to correspond to the shape of the under surface of the mudguard, the central part of the strip being curved and merging at each side into substantially straight portions adapted to extend rearwardly and downwardly along the surface of the mudguard.

Experimental tests have shown that the fitting of this simple device makes a very great difference to the cleanliness of the machine and rider in wet weather.

One practical form of our invention is illustrated by way of example in the accompanying drawings in which:—

Figure 1 is a perspective view of the front end of a motor cycle showing the usual shape of mudguard.

Figure 2 is a perspective view of the deflector showing its position on the mudguard.

In Figure 1 *a* is the front mudguard of a motor-cycle which is rigidly mounted on the front forks *b* and partially encloses the tyre *c* of the front wheel *d*. The mudguard is of curved cross section with flattened sides and

its front end is carried forwardly a short distance beyond the highest point of the tyre so that the front extremity of the mudguard is downwardly curved.

5 It is from the front edge of the mudguard that water and mud are normally blown back on to the rider.

According to our invention there is provided on the underside of the mudguard a short distance behind its front edge a deflector *e* of the outline shown in Figure 2. The deflector is a metal strip of curved or U outline and its upper edge is shaped to fit closely against the inner surface of the mudguard *a* (which is shown in dotted lines) to which it is welded or otherwise secured. In plan, the central part of the strip is curved with its convex side facing forwardly and with the curved part merging at each side into substantially straight portions *ff* which are carried rearwardly and downwardly along the surface of the mudguard to a downwardly and rearwardly falling point at each side. The curved central part of the strip is inclined rearwardly from its upper edge which is secured to the mudguard. The depth of the strip at its centre may conveniently be about one inch.

The side edges of the mudguard fall downwardly and rearwardly throughout their length behind the deflector and any tendency for mud or water to be blown off from these side edges after leaving the deflector is prevented by the usual beads *g* on the edges of the mudguard which keep the mud and water within the curvature of the mudguard until they reach and drain off from the bottom.

What we claim is:—

40 1. A front mudguard for a cycle or motor-cycle having on its inner surface adjacent to its front end a curved trans-

verse baffle or deflector of which the upper edge fits closely against the surface of the mudguard and of which the ends are extended rearwardly and downwardly along the mudguard so that water and mud driving forwardly over the inner surface of the mudguard are intercepted and deflected rearwardly until they reach a downwardly and rearwardly falling part of the mudguard and drain on naturally down to the bottom of the mudguard.

2. A front mudguard for a cycle or motor-cycle as claimed in Claim 1 in which the deflector is a metal strip of curved or U outline and the upper edge of the strip is shaped to conform to the shape of the inner surface of the mudguard to which it is welded or otherwise secured, the central part of the strip in plan being curved with its convex side facing forwardly and with the curved part merging into substantially straight extensions which are carried rearwardly and downwardly along the surface of the mudguard.

3. A front mudguard for a cycle or motor-cycle as claimed in Claim 2 in which the central part of the strip is inclined rearwardly from its upper edge which is secured to the mudguard.

4. A front mudguard for a motor-cycle substantially as described with reference to the accompanying drawings.

5. A deflector for attachment to the front mudguard of a cycle or motor-cycle substantially as described with reference to the accompanying drawings.

Dated this 6th day of October, 1950.

BARKER, BRETTELL & DUNCAN,
Chartered Patent Agents,
75 & 77 Colmore Row,
Birmingham, 3.

PROVISIONAL SPECIFICATION.

Improvements relating to Mudguards for Cycles or Motor-Cycles.

80 We, NORTON MOTORS LIMITED, a British Company, of Bracebridge Street, Birmingham 6, and RICHARD MCCANDLESS, a British Subject, of 60, Lisburn Road, Belfast, Northern Ireland, do hereby declare the nature of this invention to be as follows:—

85 This invention relates to improvements in mudguards for cycles or motor-cycles and more particularly to mudguards for the front wheels of motor-cycles.

90 The mudguard for the front wheel of a motor-cycle is usually carried forwardly for some distance in front of the vertical plane containing the wheel axis, the forward part curving downwardly to follow the contour of the wheel and usually having on each side a side wing which may extend for the whole length of the mudguard.

When the machine is running on wet roads water and mud picked up by the wheel tyre are continuously thrown off from the top of the wheel in an upward and forward direction against the inner surface of the mudguard, and the water and mud are driven forwardly to the front edge of the mudguard from which they are blown off over the machine and its rider.

95 The object of our invention is to provide very simple and effective means for preventing this.

According to our invention there is provided on the inner surface of the mudguard adjacent to its front end a curved transverse baffle or deflector of which the ends are extended rearwardly and downwardly so that water and mud driving forwardly over the

inner surface of the mudguard are intercepted and deflected rearwardly until they reach a downwardly and rearwardly falling part of the mudguard and drain on naturally down to the bottom of the mudguard.

Experimental tests have shown that the fitting of this simple device makes a very great difference to the cleanliness of the machine and rider in wet weather.

In a preferred practical form of our invention the deflector is a metal strip of U outline and the upper edge of the strip is shaped to fit closely against the inner surface of the mudguard to which it is welded or otherwise secured. In plan the central part of the strip is curved with its convex side facing forwardly and with the curved part merging into substantially straight extensions which are carried rearwardly and downwardly along the surface of the mudguard to a downwardly and rear-

wardly falling point at each side. The depth of the strip at its centre may be about an inch and it is inclined rearwardly from its upper edge which is secured to the mudguard.

The side edges of the mudguard fall downwardly and rearwardly throughout their length and any tendency that there might be for mud and water to be blown off from these side edges after leaving the deflector is prevented by the usual beads on the edges of the mudguard which keep the mud and water within the curvature of the mudguard until they reach and drain off from the bottom.

Dated this 27th day of September, 1949.

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This drawing is a reproduction of
the Original on a reduced scale.

FIG. 1.

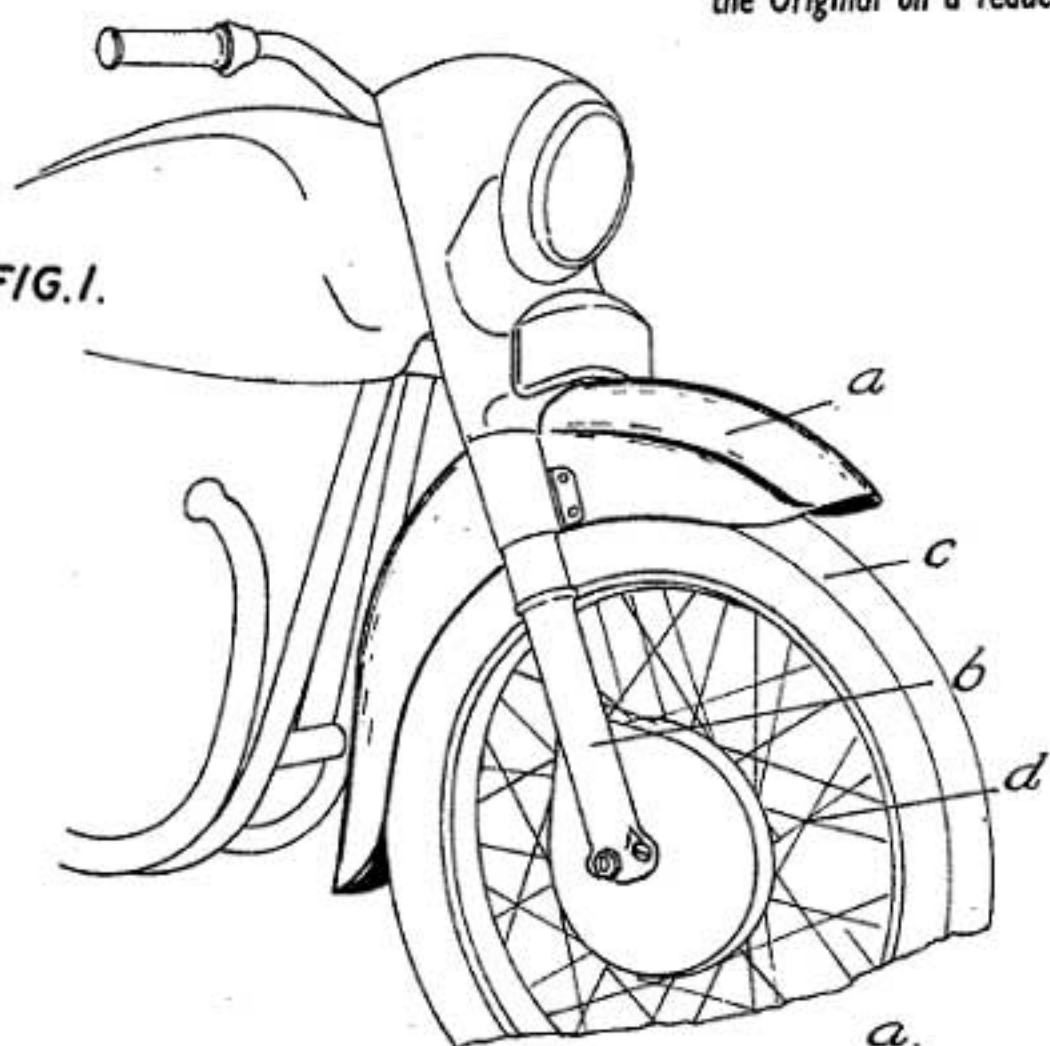


FIG. 2.

