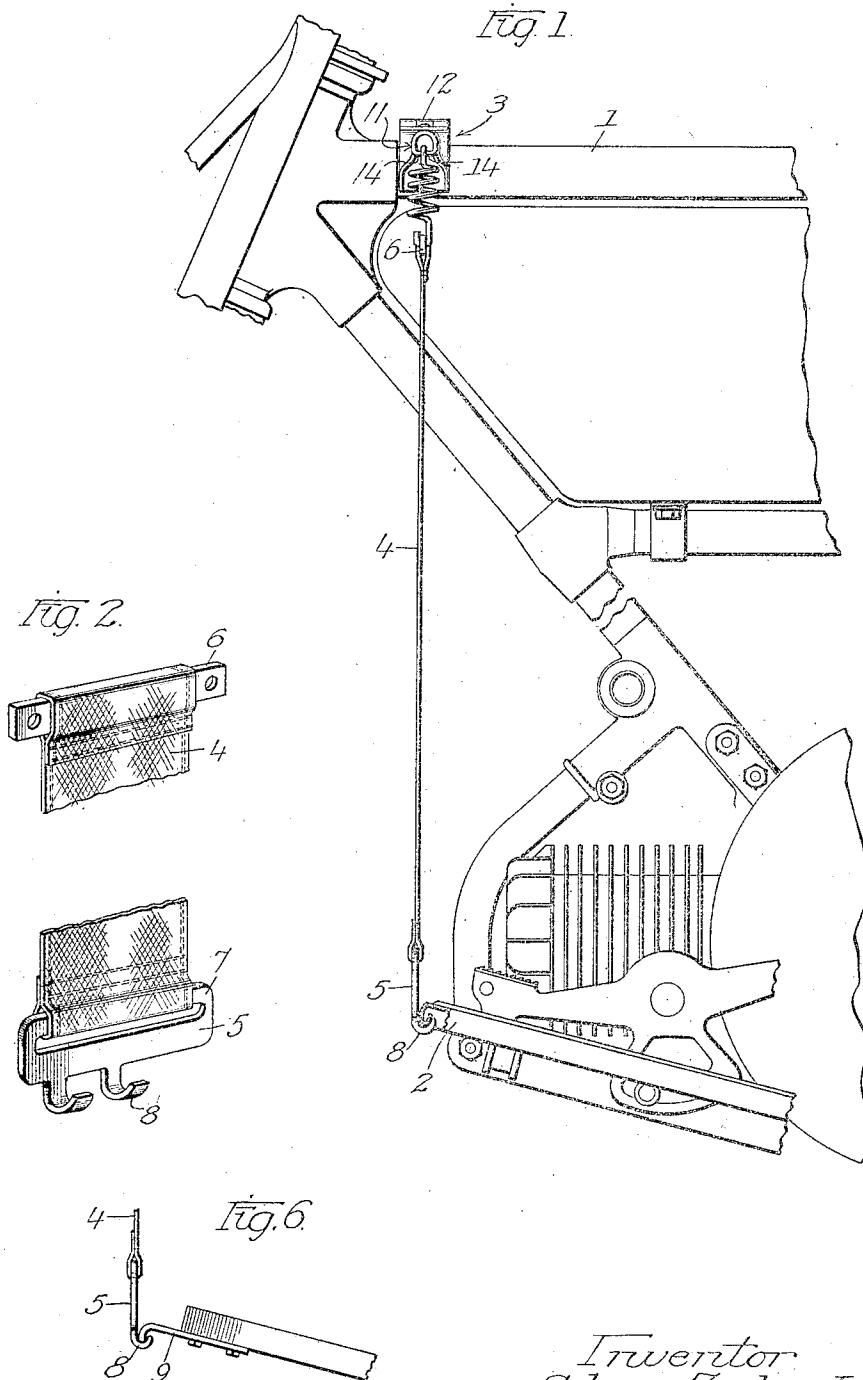


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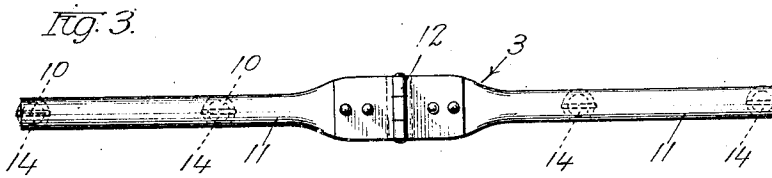
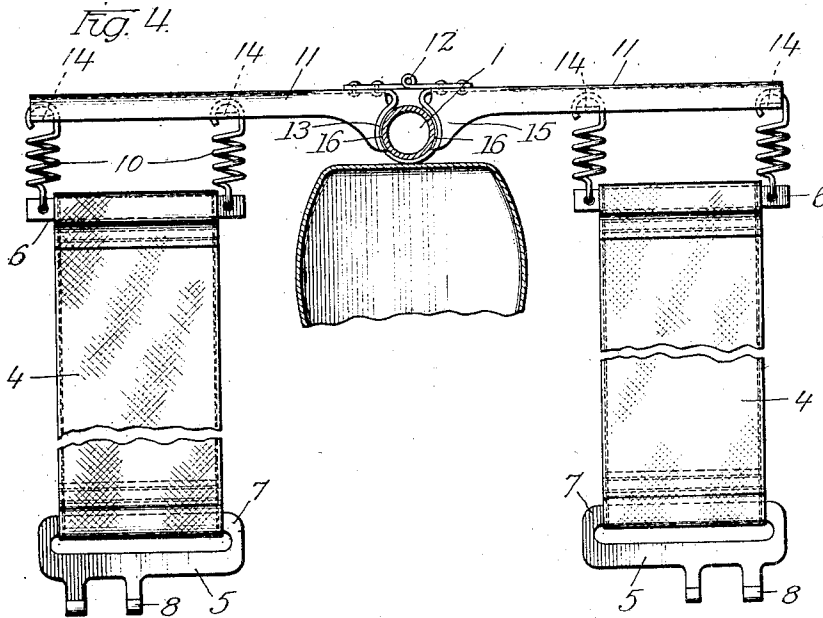
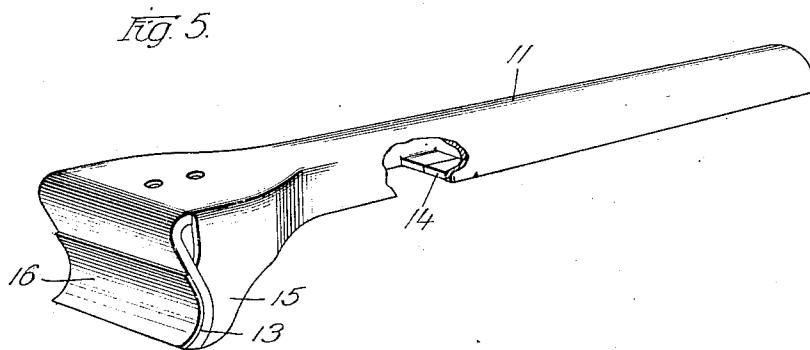
Patented Apr. 5, 1921.
2 SHEETS—SHEET 1.



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1,373,990.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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MUD-GUARD.

1,373,990.

Specification of Letters Patent.

Patented Apr. 5, 1921.

Application filed August 22, 1919. Serial No. 319,286.

To all whom it may concern:

Be it known that I, ADAM ZISKA, Jr., a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Mud-Guards, of which the following is a specification.

This invention relates to mud guards.

One of the objects of the invention is to provide a mud guard for a bicycle, or motor-cycle, or similar machine.

A further object is to provide a detachable mud guard.

A further object is to provide a mud guard which will occupy a small amount of space when in operative position and when in inoperative position may be folded so as to occupy a still smaller space.

A further object is to provide a readily adjustable mud guard.

A further object is to provide improved means for maintaining the guard in position.

A further object is to provide a mud guard which may be easily and quickly attached to, and detached from, the cycle.

A further object is to provide a mud guard for cycles which affords the rider's legs complete protection for all positions of the front wheel.

A further object is to provide a mud guard which may be attached to the usual makes of bicycles, motor-cycles and similar machines.

A further object is to provide a detachable mud guard which will be cheap to manufacture and in which the main metallic portions may be stamped from flat material.

A further object is to provide a detachable mud guard which will automatically adjust itself to fit various types of cycles.

A further object is to provide a detachable mud guard which is neat, simple and durable.

Other objects will appear.

An embodiment of the invention is illustrated in the accompanying drawings.

The views of the drawings are as follows:

Figure 1 is a fragmentary view of a motor-cycle with the detachable mud guard in place.

Fig. 2 is a view of one of the guard elements.

Fig. 3 is a plan view of the supporting structure of the detachable mud guard.

Fig. 4 is an end elevation of the mud guard with a portion of the motor-cycle shown in section.

Fig. 5 is a perspective view of one of the supporting elements.

Fig. 6 is a detail showing a further method of attaching the guard to the foot board of a motor-cycle.

Fig. 1 shows the mud guard with its upper supporting member 3, attached to the upper horizontal bar 1 of the motor-cycle, and carrying the flexible guard elements 4 whose lower ends are provided with hooks 5 which engage the flanges of the foot boards 2 of the motor-cycle.

Fig. 2 shows one of the guard elements 4 detached from the rest of the mud guard. The guard element 4 is composed of a piece of canvas with its horizontal edges stitched or otherwise prevented from fraying, and with its upper and lower ends folded over a supporting bar 6 and lower bar 7, respectively, and thereafter secured to the body portion 4 by stitches or suitable means. The lower bar 7 is integral with the lower attaching member 5 which is provided with hooks 8 which are adapted to engage the flange of the foot board as shown in Fig. 1, or an auxiliary flange 9, as shown in Fig. 6, which may be attached to the foot board in case the foot board is not provided with a flange as a part of its structure.

Fig. 4 shows the general arrangement of the elements of this mud guard. Each of the upper supporting bars 6 of the guard elements is suspended by means of springs 10 from one of the bars 11 of the supporting member 3. The two sides of the mud guard are duplicates, that is to say, each consists of a guard member 4 resiliently suspended from an arm 11 and provided with attaching hooks 8 at its lower portion. These arms 11 are hinged at 12 and have their opposed faces, below such hinge, curved to fit the upper horizontal bar of a motor-cycle or bicycle.

Fig. 5 shows one of these supporting arms 11 in detail and illustrates the manner in which the curved, gripping face 13 is formed. This supporting bar is formed of pressed steel and comprises a substantially channel-shaped body portion 11, which is provided with a pair of opposed tongues 14 which are inwardly bent into juxtaposition and welded, thereby forming means for

supporting the springs 10. The lower forward portion of this supporting arm is bent downwardly at 15 to form a brace, or reinforcing portion, for the curved, gripping portion 13. A piece of felt 16 is cemented to the face 13 to prevent marring the upper bar of the motor-cycle frame when the mud guard is in operative position.

When it is desired to attach this mud guard to a motor-cycle, the two faces 13 are slightly opened to thereby accommodate the upper horizontal bar 1 of the motor-cycle. Thereafter they are moved downwardly and engage such bar by a gripping action. The hooks 8, at the lower portion of the guard elements 4, are then hooked under the flange of the foot board 2 of the motor-cycle, the springs 10 thereby being placed in tension and maintaining the guard elements 4 in extended position. The springs 10 also function to cause the hinged arms to yieldingly grip the frame. The spring holds the guard in position without the use of special attaching means requiring screws, clamps or the like. It also permits the guard to be readily adjusted to different positions and to be readily attached to and detached from the frame.

When it is desired to remove the mud guard, the hooks 8 are disengaged from the flange of the foot board and one of the arms 11 is folded over on top of the other arm 11 and the guard elements 4 are wrapped around such folded arms, thereby producing a small, compact bundle.

The variations in the distance between the foot board 2 and the upper bar 1 is taken care of by means of the springs 10 which causes the mud guard to adjust itself to varying conditions.

The lower portion of these guard elements is positioned at the forward portion of the foot board, while the upper end is suspended directly above such point thereby positioning the guard elements 4 directly in front of the legs of the rider.

Obviously other structures may be devised which will embody the invention herein set forth.

I claim:

1. A detachable mud guard for cycles comprising a plurality of hinged supporting bars adapted to be mounted on the frame, a flexible guard member for each bar, attaching means for the bottom of the guard members, and resilient means cooperating with the bars and guard members and causing the bars to grip the frame.

2. A foldable guard for cycles adapted to be mounted on the frame, comprising a plurality of arms having a hinged connection, a flexible guard for each arm, means for anchoring the loose end of the guard, and resilient means associated with the guard and arms and maintaining the arms

in gripping relation to the frame and holding the guard in extended position.

3. A mud guard for cycles comprising an upper suspension member engaging the body frame, lower attaching members, and guard elements supported by said suspension member and secured to said attaching members.

4. A detachable cycle guard adapted to be mounted on the frame comprising a pair of arms adapted to grip the frame, a pair of guard elements, one being suspended from each arm, means for anchoring one end of the guards, and resilient means for holding the guards in position and for maintaining the arms in gripping relation to the frame.

5. A detachable cycle guard adapted to be mounted on the frame comprising a pair of arms adapted to grip the frame, a pair of guard elements one being suspended from each arm, means for anchoring one end of the guard elements, and spring means cooperating with the arms and causing the same to detachably grip the frame.

6. A detachable mud guard for cycles comprising an upper supporting member provided with means for clamping it in place upon the body frame, a guard element extending downwardly from said supporting member, and an attaching device at the lower portion of the guard element.

7. A detachable mud guard for cycles comprising an upper hinged bar adapted to extend transversely of the frame of the cycle and to yieldingly engage said frame for adjustment thereon, a pair of flexible guard members yieldingly suspended from said bar and positioned one on each side of the cycle, and means for anchoring the lower ends of said flexible guard members.

8. A detachable mud guard for cycles comprising an upper bar arranged to extend transversely of the frame of the cycle and to yieldingly engage said frame, a pair of flexible guard elements resiliently suspended from said bar, and anchoring means at the lower portion of said guard members.

9. A detachable mud guard for cycles comprising an upper hinged bar arranged to extend transversely of the frame of the cycle and to grip said frame at the hinged portion of said bar when said bar is in extended position and a pair of spring supported guard elements carried one at each end of said bar whereby the hinged bar yieldingly grips the frame.

10. A foldable, detachable mud guard for cycles comprising a bar formed of a pair of arms connected by a hinge joint, gripping faces adjacent said hinge joint for engaging the frame of said cycle, a flexible guard member resiliently suspended from each arm, and anchoring means for each of said flexible guard members whereby the arms are adjustably gripped to the frame.

11. A detachable mud guard comprising a bar formed of two pressed steel hinged members having juxtaposed gripping faces formed thereon, a fabric guard element resiliently supported by each of said arms, and attaching members adjacent the lower portion of the guard elements.

12. A detachable mud guard for motor-cycles having foot boards, comprising a pair of hinged arms arranged to clamp a portion of the frame of said motor-cycle between them when in extended position, a flexible guard element resiliently suspended from each of said arms, and hooks adjacent the lower portion of said flexible guard elements for hooking under the edge of said foot boards.

13. A mud guard for cycles comprising a pair of hinged arms provided with juxtaposed gripping faces for engaging the frame of the cycle, a plurality of flexible guard elements, one resiliently supported from each of said arms, and anchoring means adjacent the lower portion of each of said flexible guard elements, said mud guard adapted to be detached from the cycle, thereby permitting said arms to be folded one against the other and the flexible guard elements to be wrapped around such folded arms.

14. A detachable mud guard for cycles comprising an upper bar adapted to extend transversely of the frame of the cycle and to yieldingly grip said frame, means carried by said bar for preventing the marring of said frame, a pair of flexible guard elements suspended from said bar and positioned one on each side of the cycle, means for anchoring the lower ends of said flexible guard members; and resilient means cooperating

with the bar and guard elements to adjustably grip the guard on the frame.

15. A detachable mud guard for cycles, comprising a pair of supporting arms having juxtaposed faces for adjustably gripping a part of the cycle frame, a lining for each of said faces, a flexible guard element suspended from each of said supporting arms, means for anchoring the lower portion of each of said flexible guard elements, and resilient means yieldingly pressing the arms into gripping engagement with the frame to permit adjustment thereon.

16. In a cycle guard adapted to be supported on a frame, the combination of a pair of hinged arms having a gripping connection with the frame, guard elements suspended from the arms, and resilient means for causing the arms to grip the frame and for holding the guard in extended position.

17. A detachable guard for cycles comprising an arm adapted to be mounted on the frame by a gripping action, a guard suspended at one end from the arm and anchored at the other end, and resilient means interposed between the guard and the arm whereby the arm detachably grips the frame and permits removal of the guard upon release of the resilient means.

18. In a detachable cycle guard adapted to be mounted on a frame, the combination of a plurality of arms having a hinged connection and means for gripping the frame, flexible guard elements suspended from the arms, and resilient means cooperating with the arms and causing the same to detachably grip the frame.

In witness whereof I have hereunto subscribed my name.

ADAM ZISKA, JR