

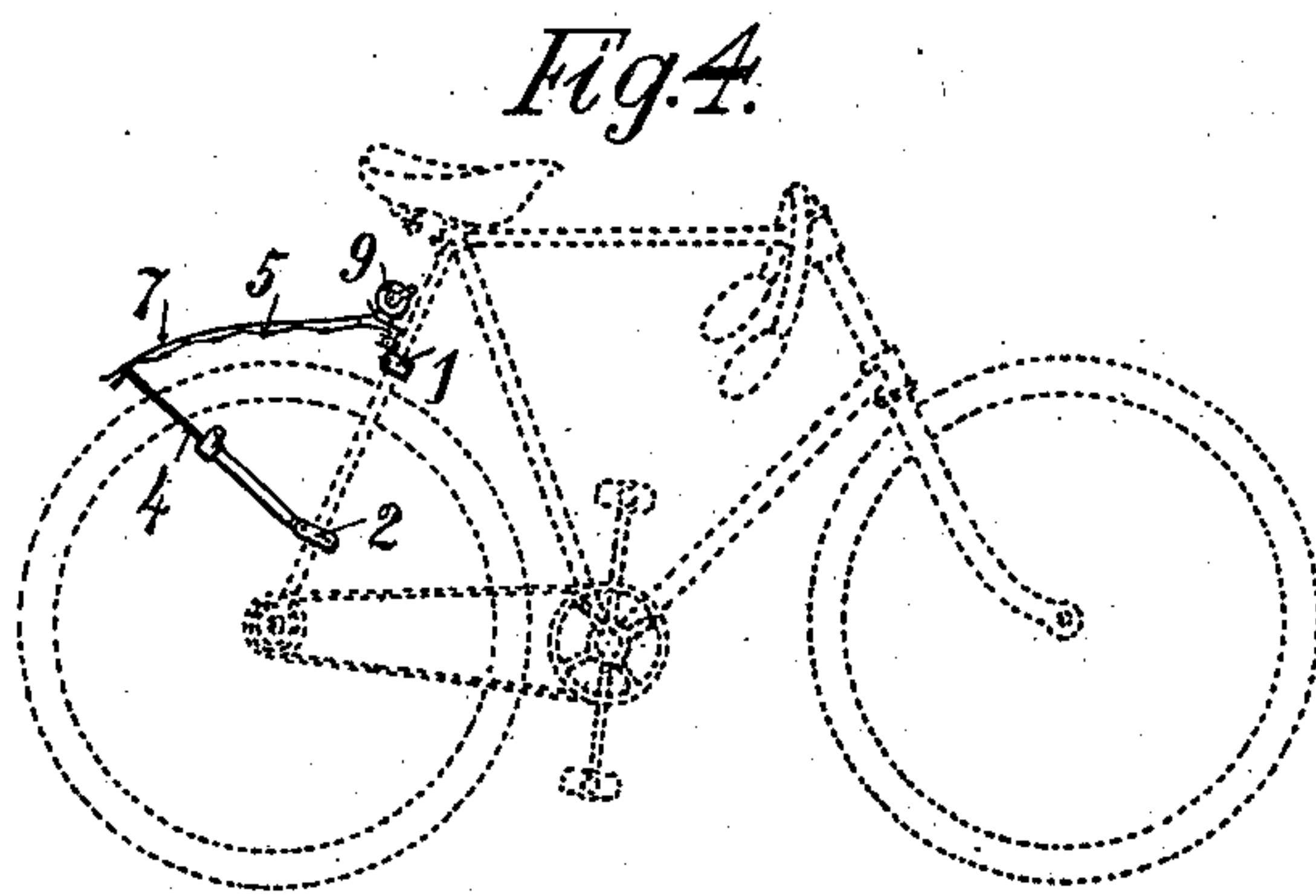
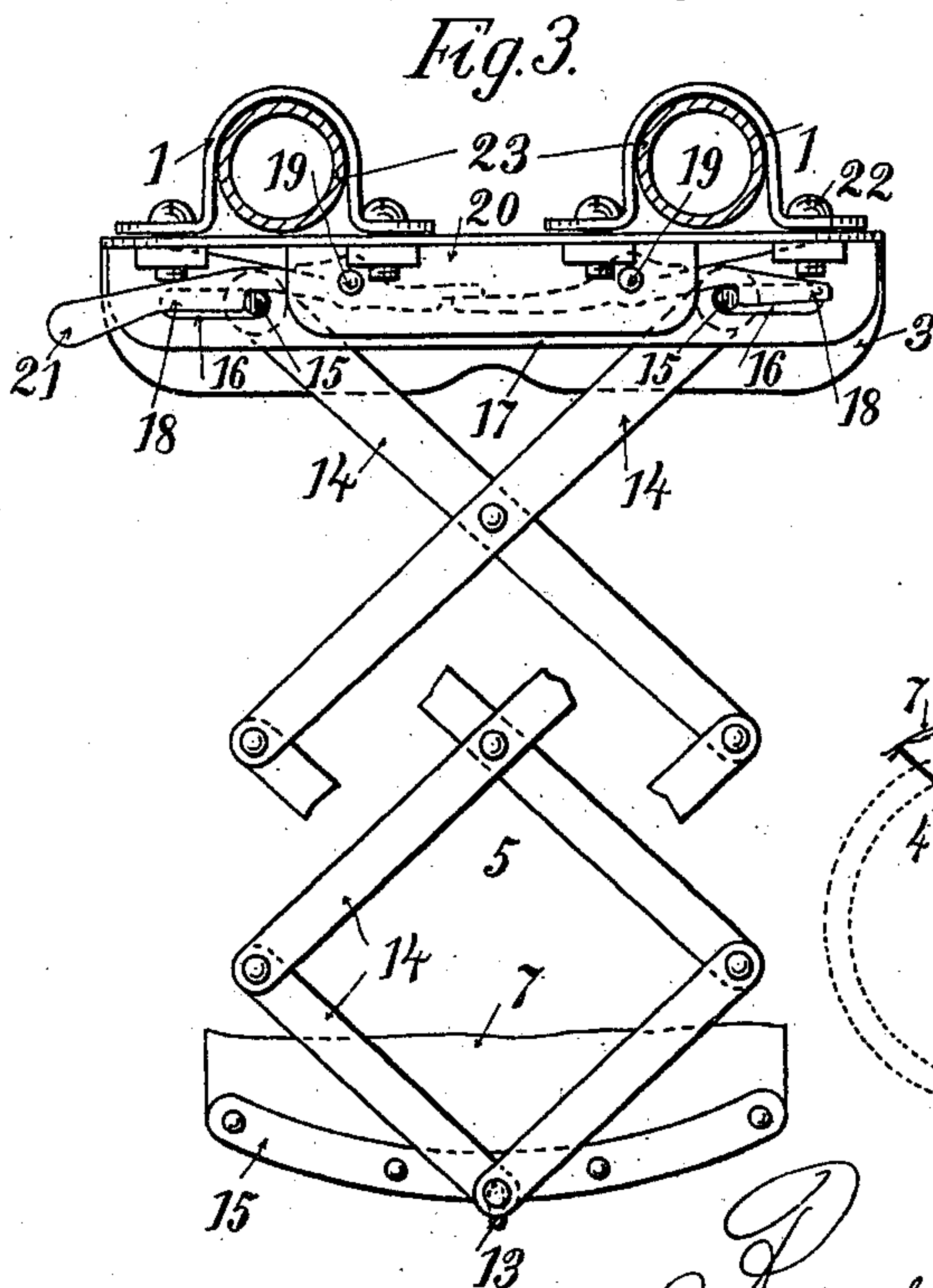
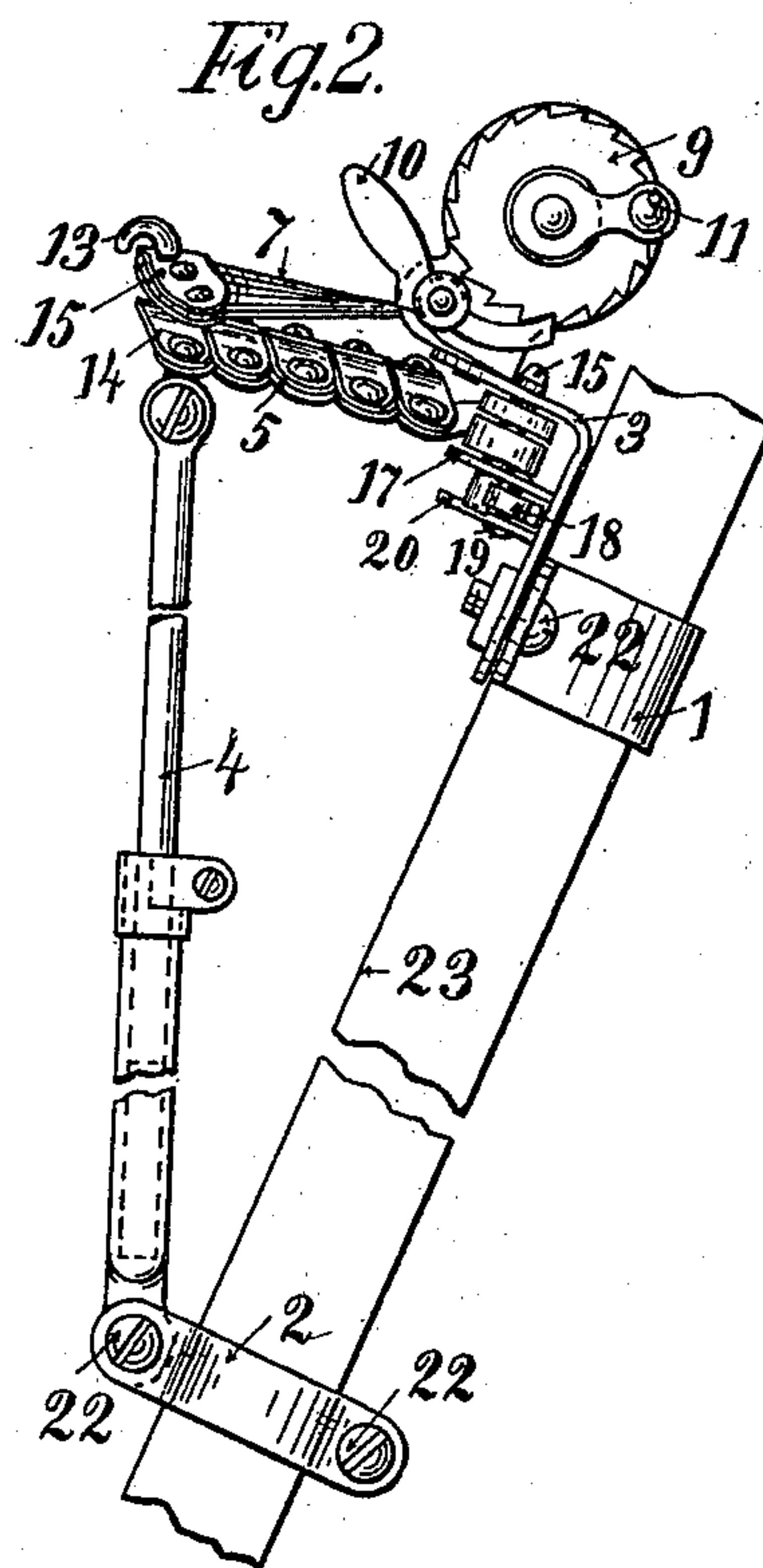
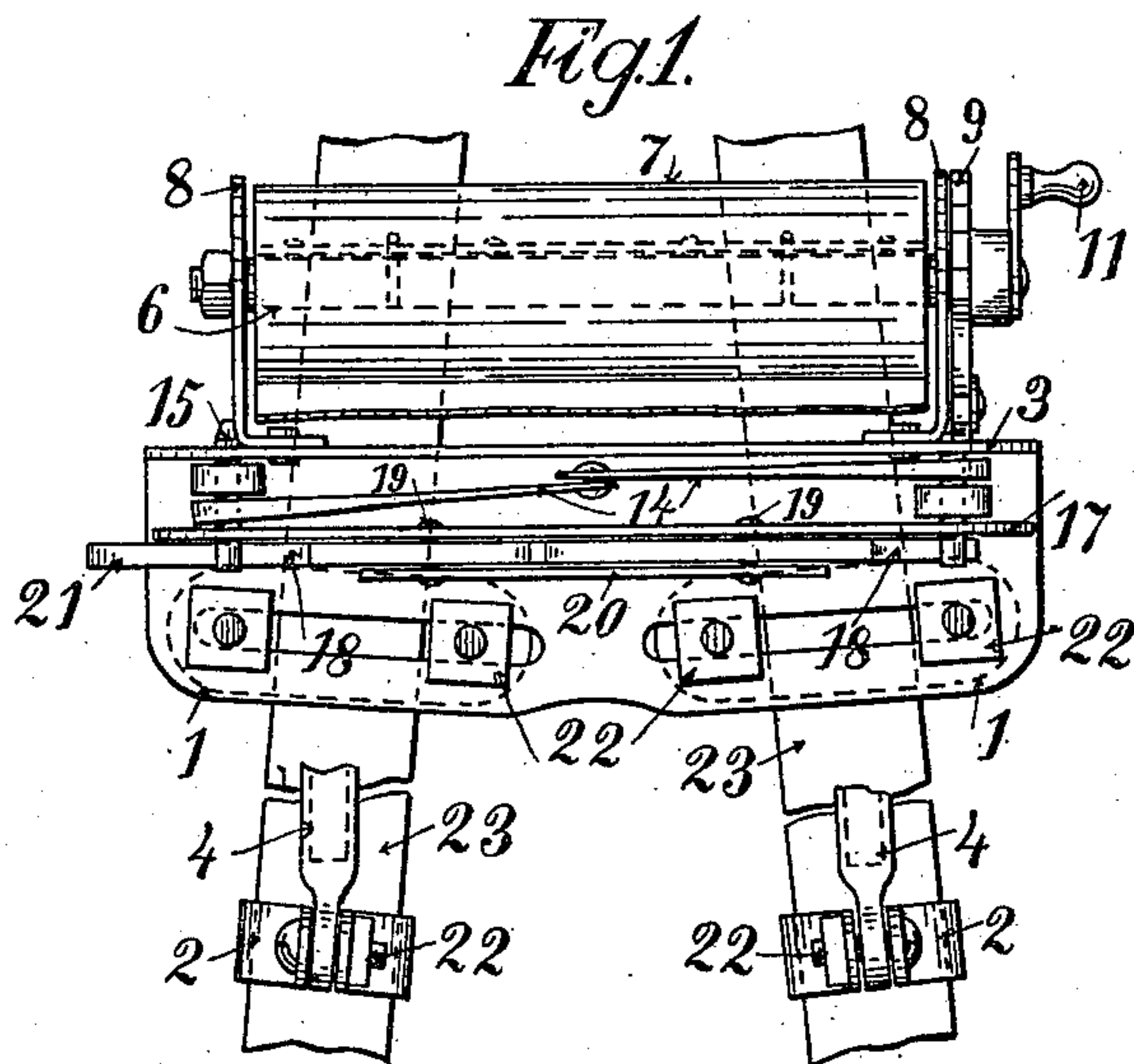
No. 617,504.

Patented Jan. 10, 1899.

R. A. M. HERMANN.  
MUD GUARD FOR BICYCLES.

(Application filed May 11, 1898.)

(No Model.)



Witnesses:

John A. Paulson.  
Harry Calhoun

By

Robert A. M. Hermann Inventor.

Schreiter, Van Oderstine & Mathews, Attys.



# UNITED STATES PATENT OFFICE.

ROBERT A. M. HERMANN, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS  
TO KATIE E. PEOPLE AND WILLIAM JENNINGS, OF SAME PLACE.

## MUD-GUARD FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 617,504, dated January 10, 1899.

Application filed May 11, 1898. Serial No. 680,395. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT A. M. HERMANN, of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Mud-Guards for Bicycles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, wherein—

Figure 1 is an elevation of my folding mud-guard in folded position on the frame of the bicycle. Fig. 2 is a side view thereof; Fig. 3, a bottom view of the mud-guard extended; Fig. 4, an elevation of a bicycle provided with my improved mud-guard in extended position.

My invention relates to bicycle appliances; and it consists of the hereinafter-described foldable mud-guard comprising an apron and a foldable frame for stretching the same and mechanism for holding the mud-guard in extended position and of mechanism for winding up the apron when not in use.

The frame comprises an extensible bridge 5, connected to bracket 3, which is rigidly secured to the frame of the bicycle by means of the clamps 1, and extensible bars 4, pivoted to clamps 2 and supporting the outer end of the extensible bridge. Bridge 5 consists of a series of crosswise and endwise pivoted links or braces 14, arranged to operate as a shear. The last pair of braces is connected jointly with the edge 15 of the apron 7 to the hook 13, and thus when the apron is pulled outwardly the bridge supporting it is extended at the same time. Apron 7 is fastened to roller 6 and is wound thereon when the mud-guard is not in use. The roller is mounted in standards 8, riveted to the bracket 3. A ratchet-wheel 9 is set on the axis of the roller 6, and pawl 10 engages with the ratchet-wheel to prevent the unrolling of the apron 7. In winding up the apron roller 6 is operated by crank 11, and in that case the ratchet-wheel 9 slides on pawl 10.

When extending the mud-guard, the hook 13 is taken hold of with one hand, while the other hand lifts the pawl 10 by pressing on its rear end, and then the apron is pulled out simultaneously. The ends of the first pair of braces 14 composing the bridge are con-

nected to bracket 3 by pivots 15, which slide in slots 16 provided in the bracket 3 and in the shelf 17, affixed underneath to the bracket. Pivots 15 project below shelf 17, and their lower ends are engaged by catches 18, which are provided to arrest them in their positions when the bridge 5 is extended to prevent its collapsing. Catches 18 are double-armed levers fulcrumed on pins 19, riveted in shelf 20 below the shelf 17, and are to some extent elastic, acting like springs on pins 15 and arresting them when they reach the inward ends of the slots 16. The pins are again disengaged from these catches by pressing the end 21 toward the clamps 1. It will be seen in Fig. 3 that the ends of catches 18 overlap, and therefore by pressing the end 21 toward the clamp 1, as stated above, the end of the other catch will be moved in opposite direction and thereby this catch removed from engagement with the other pin.

Clamps 1 and 2 are secured by screw-bolts 22 to the bars 23 of the bicycle-frame in suitable position. Bars 4 are made extensible to permit the attaching of my improved mud-guard to any bicycle regardless of its size.

I claim as my invention and desire to secure by Letters Patent—

1. A foldable mud-guard consisting of a frame, comprising a bracket adapted to be secured to the frame of the bicycle, an extensible bridge having one end pivotally connected to the bracket, extensible bars supporting the other end of the bridge and pivotally mounted in clamps secured to the frame of the bicycle, a roller mounted in standards upon the bracket, an apron secured to the roller and adapted to be wound thereon and secured with the other end to the extensible bridge, and means for locking the extensible bridge in extended position and means for stretching the apron over the bridge.

2. In combination a bracket adapted to be secured to the frame of a bicycle, a roller mounted upon the bracket, a series of crosswise and endwise joined braces shiftably connected to the bracket by pins secured to the ends of the first pair of the braces and engaging in slots provided in the bracket, catches fulcrumed to the brackets in position to en-

gage with the pins and to interlock with them  
when the braces are extended, an apron se-  
cured with one end to the roller and with the  
other to the last pair of braces, a ratchet-  
5 wheel set upon the axis of the roller and a  
pawl fulcrumed in position to engage the  
ratchet-wheel, extensible rods pivotally se-  
cured to the frame of the bicycle and to the  
terminal of the series of braces.

In witness that I claim the improvements to  
described in the foregoing specification I have  
signed my name in the presence of two sub-  
scribing witnesses.

ROBERT A. M. HERMANN.

Witnesses:

LOUIS PEOPLE,

ROBERT VALENTINE MATHEWS.