

No. 626,145.

Patented May 30, 1899.

B. C. CRANE.
GUARD FOR BICYCLES.

(Application filed Nov. 26, 1897. Renewed Dec. 10, 1898.)

(No Model.)

Fig. 1.

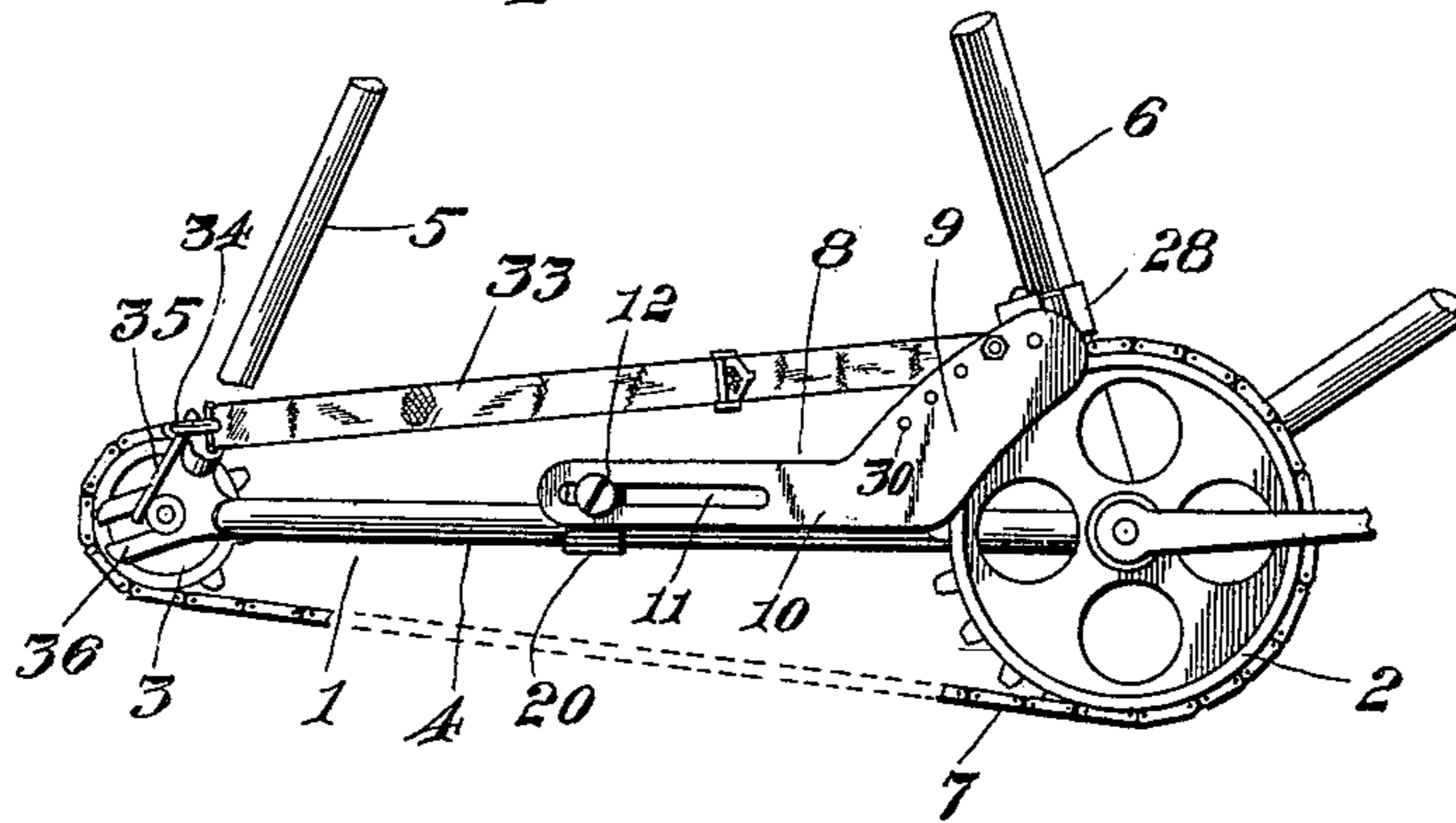


Fig. 2.

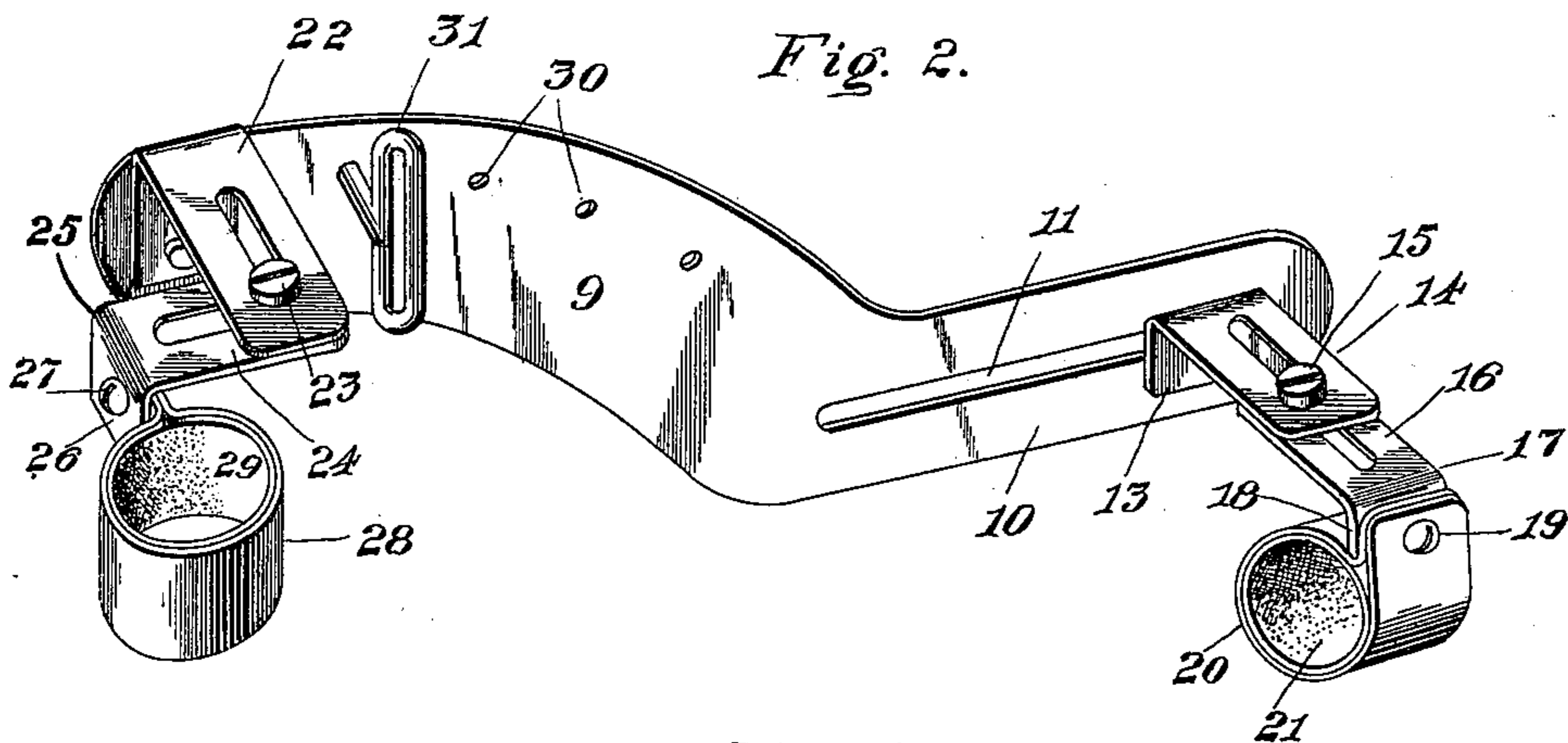
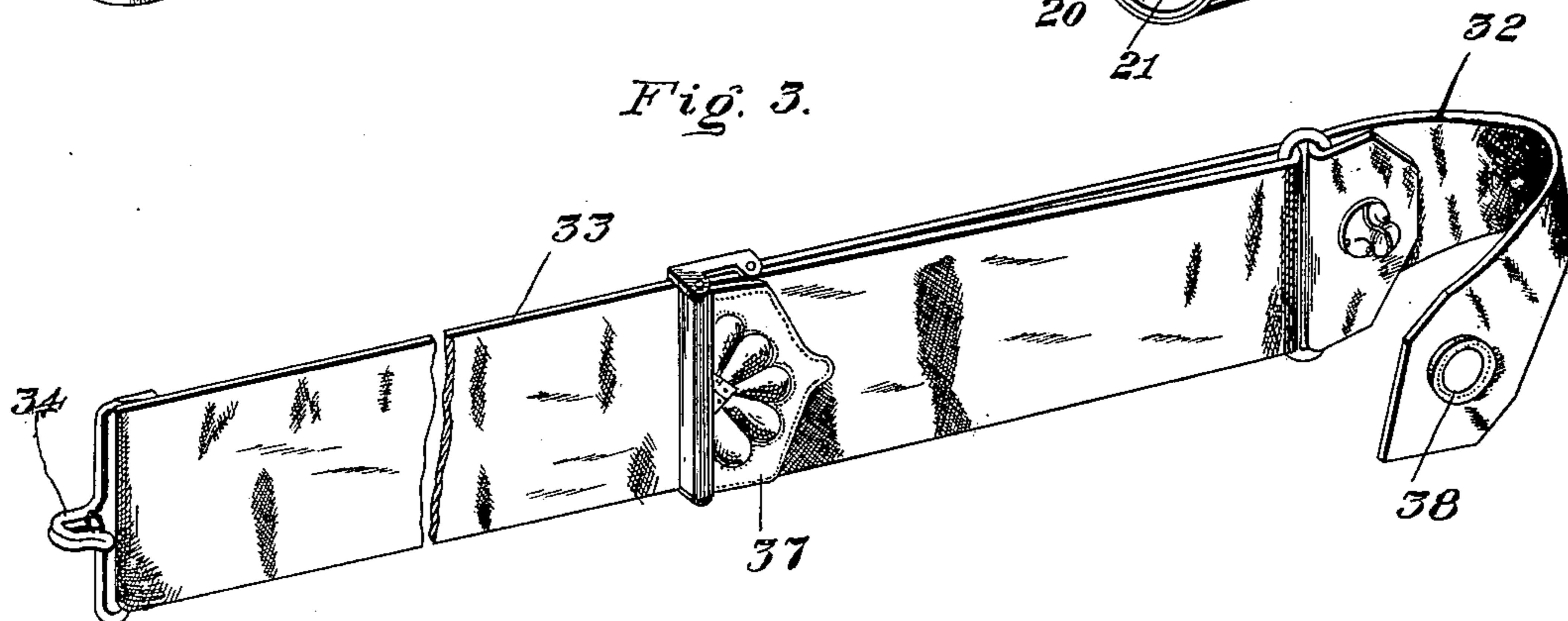


Fig. 3.



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UNITED STATES PATENT OFFICE.

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GUARD FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 626,145, dated May 30, 1899.

Application filed November 26, 1897. Renewed December 10, 1898. Serial No. 698,896. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN CHAPMAN CRANE, a citizen of the United States, residing at Montesano, in the county of Chehalis and State of Washington, have invented certain new and useful Improvements in Guards for Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to guards for bicycles to prevent contact with the moving parts thereof; and it consists, essentially, of a thin sheet-metal guard applied over the rear upper portion of the drive-sprocket and adjustably supported in proper position on the adjacent portions of the frame, and also of an upper chain-guard constructed of yielding material having adjusting means in connection therewith.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

The object of the invention is to provide simple and effective means for preventing trousers or dress-skirts from contacting with the movable parts of a bicycle, the devices being of such nature as to make them readily applicable to machines now in use without materially changing the construction and arrangement of the several parts and may be as readily disconnected when desired, and thereby avoid the necessity of using clamps or trousers-holders or other devices now commonly employed to shield and protect garments or clothing from contact with the running-gear of a bicycle.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a bicycle, showing the improved device applied in proper position thereon. Fig. 2 is a detail perspective view of the drive-sprocket guard shown disconnected and looking at the side thereof opposite to that illustrated by Fig. 1. Fig. 3 is a detail perspective view of the chain-guard.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a portion of a bicy-

cle-frame, which in the present instance includes a drive-sprocket 2, a rear sprocket 3, a rear fork 4, a backstay 5, and a diagonal 6, together with the chain 7, engaging the sprocket-wheels 2 and 3, as in the ordinary and well-known forms of construction.

The guard for the drive-sprocket comprises a thin sheet-metal plate 8, which may be constructed of sheet-steel or aluminium and has an upper curved extension 9, which overlaps the rear upper portion of the drive-sprocket 2 and extends upwardly from a lower horizontal arm 10, having a slot 11 therein extending longitudinally thereof. The shank of a headed set-screw 12 passes through the slot 11 and, as shown in Fig. 2, engages a depending lip 13 at the outer end of a slotted adjusting-plate 14, and in the slot of said plate an adjusting-screw 15 is mounted and also engages and is clamped to the upper horizontal angular extension 16 of a securing-plate 17, which is also formed with a depending flange 18, connected to the screw 19 of a cylindrical clamp 20, adapted to be fitted over the back fork 4, and having therein a buffing-pad 21, of felt or other analogous material, to prevent injury to said fork. To the upper end of the curved extension 9 a slotted horizontally-disposed plate 22 is movably attached, said plate being similar in construction to the plate 14, and through the slot thereof extends a set-screw 23, which also engages and is adapted to be clamped to a horizontal angular extension 24 of a supporting-plate 25, which has a depending flange 26 connected to the clamping-screw 27 of a second cylindrical clamp 28, adapted to engage the diagonal 6, and also having therein a pad or piece 29, of felt or other analogous buffing material, to prevent injury to the said diagonal. Along the length of the curved extension 9 and adjacent to the upper edge thereof are a series of openings 30, which are adapted to be removably engaged by a hook 31 on the front end of a yielding or elastic web or strap 33, adapted to be stretched over the outer side of the upper portion of the chain 7, and also having at the rear end thereof a tab 32, which removably embraces the back fork 5, as will readily be understood and seen from the accompanying drawings. The web or strap 33 is double throughout a portion of its length

and supplied with an adjusting-buckle 34 by which it may be lengthened or shortened, and the adjustment may also be changed by moving the hook 31 to either one of the apertures 5 or openings 30 in the curved extension 9. The tab 32 is also adapted to be opened and closed for releasing the same from the back fork 5, and for this purpose it is provided with a clasp 38, and it will be seen that by opening the 10 said clasp a disconnection of the said tab from the rear back fork may be readily attained and the web or strap 33 readily removed by then disconnecting the hook 31 from the opening 30 with which it has been in engagement. 15 The said web or strap 33 is held in proper adjusted position through its inherent resiliency or elasticity, and will thereby be prevented from laterally striking the chain through the movement of the machine, and an effectual 20 chain-guard will thus be provided at a comparatively small expense, as it will be seen that materials and devices already in the market can be used in its make-up.

The slotted arm 10, from which the curved 25 extension 9 rises, as well as the adjustable connections of the clamps 20 and 28, makes the wheel-guard easily conformable to different makes of machines and to a variation of the distance from the diagonal 6 and the back 30 fork 4, and after the parts are properly adjusted relative to the devices to which they are applied they will be held in immovable position against rattling, and in taking up a variation in the distance between the diago-

nal 6 and the back fork 4 the set-screw 12 will 35 be moved in the slot 11, and the clamps 20 and 28 will also have their positions changed to accord with such adjustments.

The several parts of the device may be ornamented and plated where desired, and, as 40 previously set forth in the application thereof, it is unnecessary to make any material change or any wise weaken the machine to which they are applied. Variations may be made in the proportions and dimensions, and it is obvi- 45 ously apparent that many minor changes in the details of construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or 50 spirit of the invention.

Having thus described the invention, what is claimed as new is—

A guard for a bicycle comprising a drive-sprocket guard-plate adjustably mounted in 55 position and having a series of openings in the upper portion thereof, a holding device engaging one of said holes or openings, and a web or strap connected at its front end to said holding device and at its rear end to the 60 rear part of the machine, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN CHAPMAN CRANE.

Witnesses:

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