

Feb. 6, 1951

M. H. HOLLINGSWORTH

2,540,394

DIRECTION AND SAFETY SIGNAL FOR MOTORCYCLES

Filed Oct. 1, 1948

2 Sheets-Sheet 1

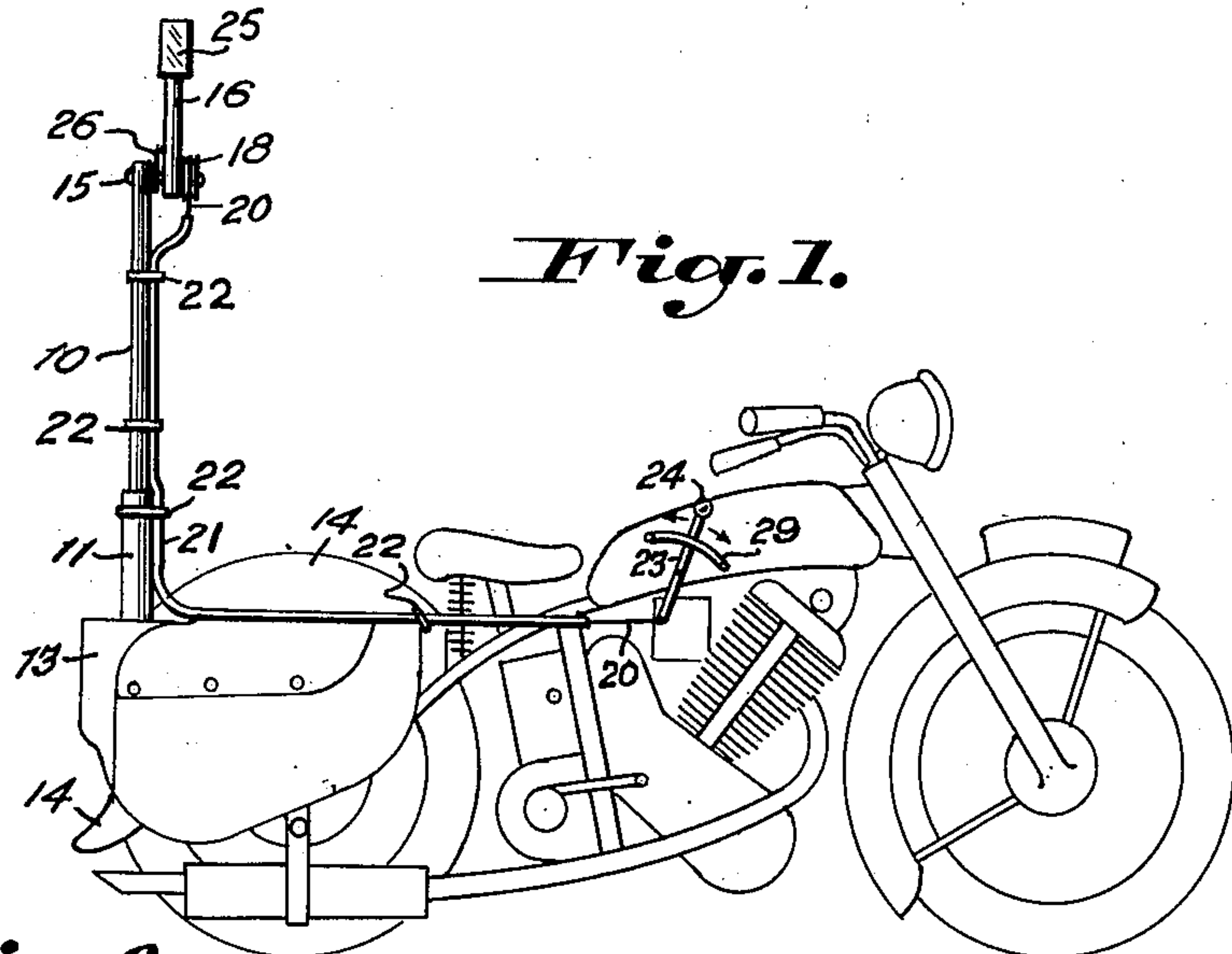


Fig. 1.

Fig. 6.

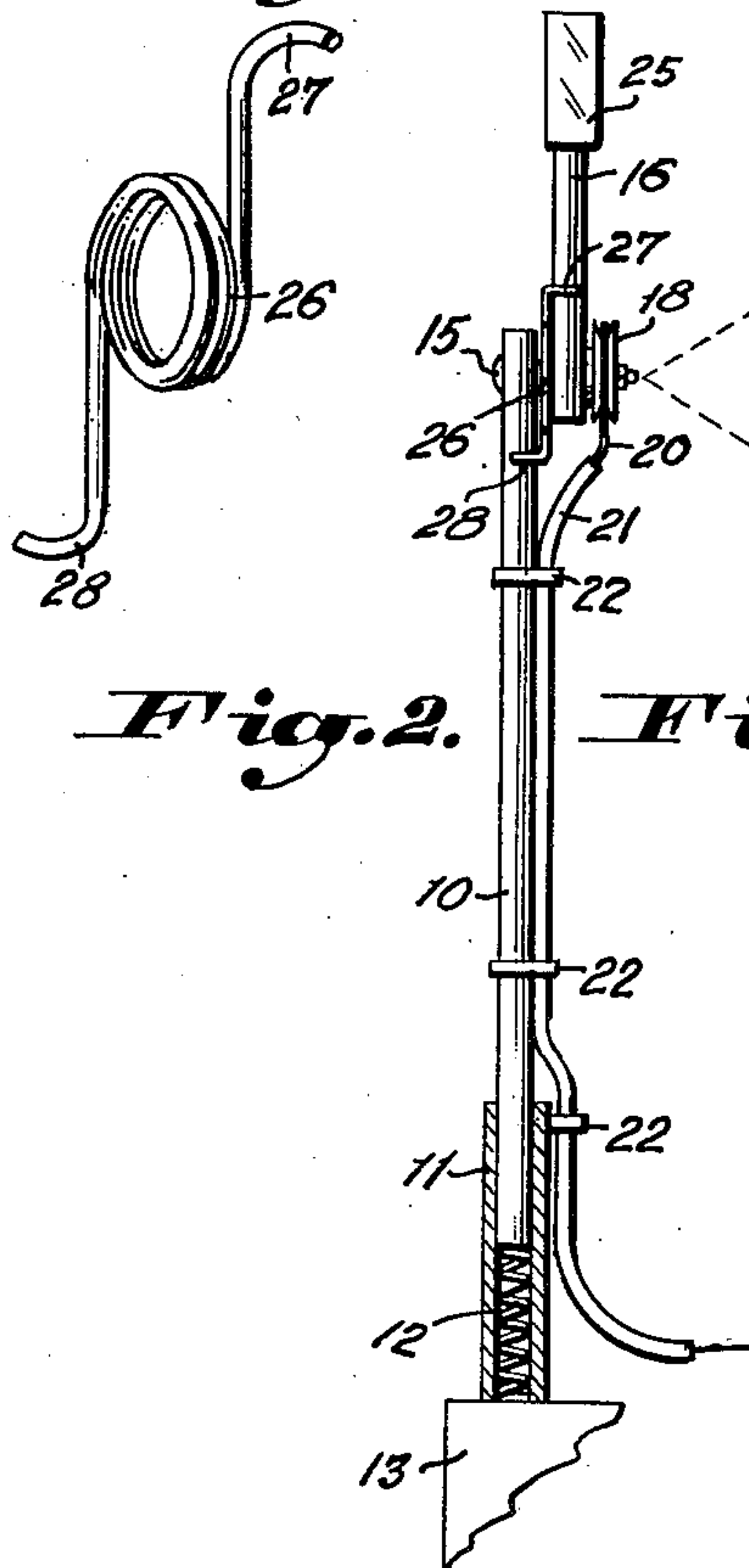


Fig. 2.

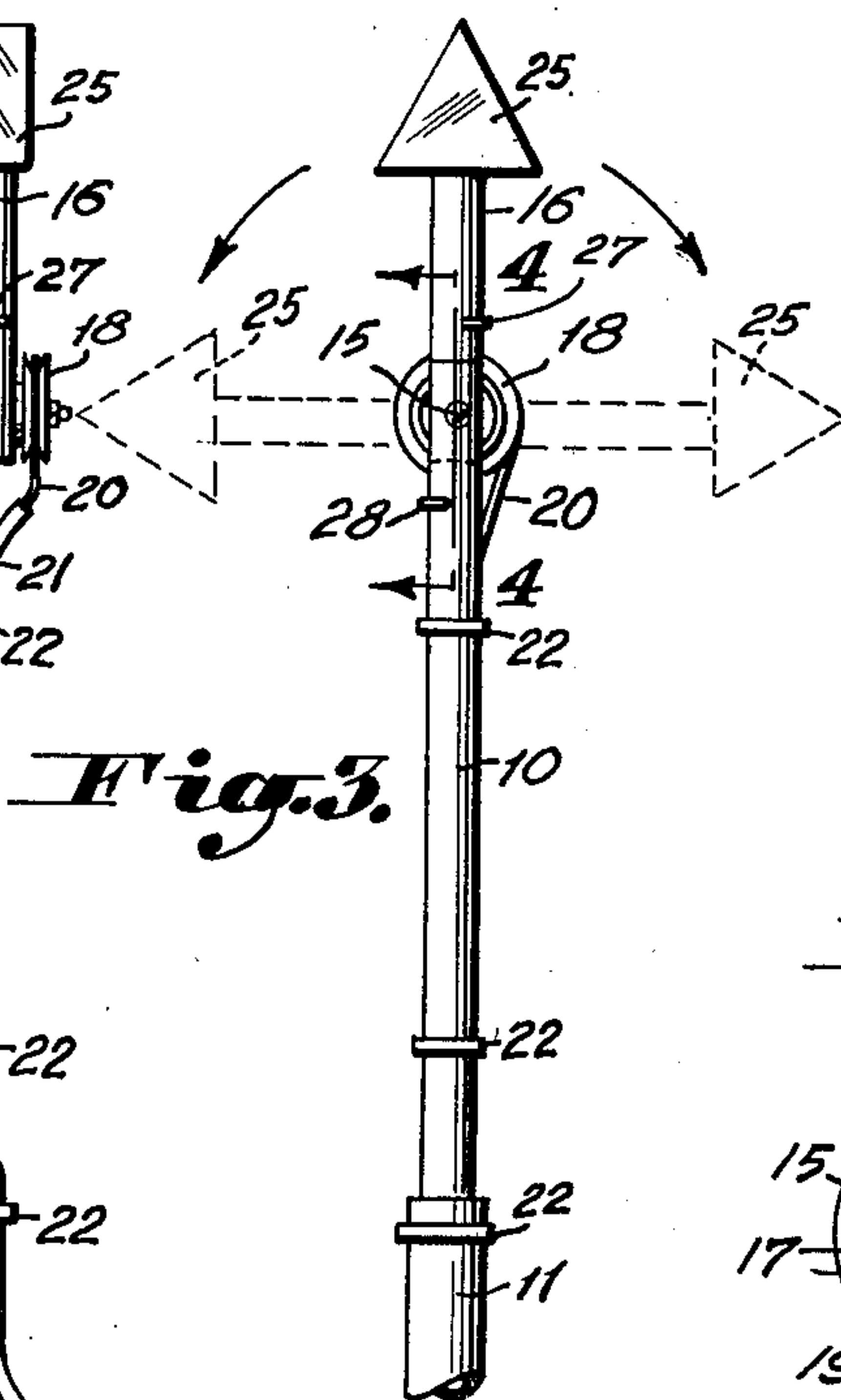


Fig. 3.

Fig. 4.

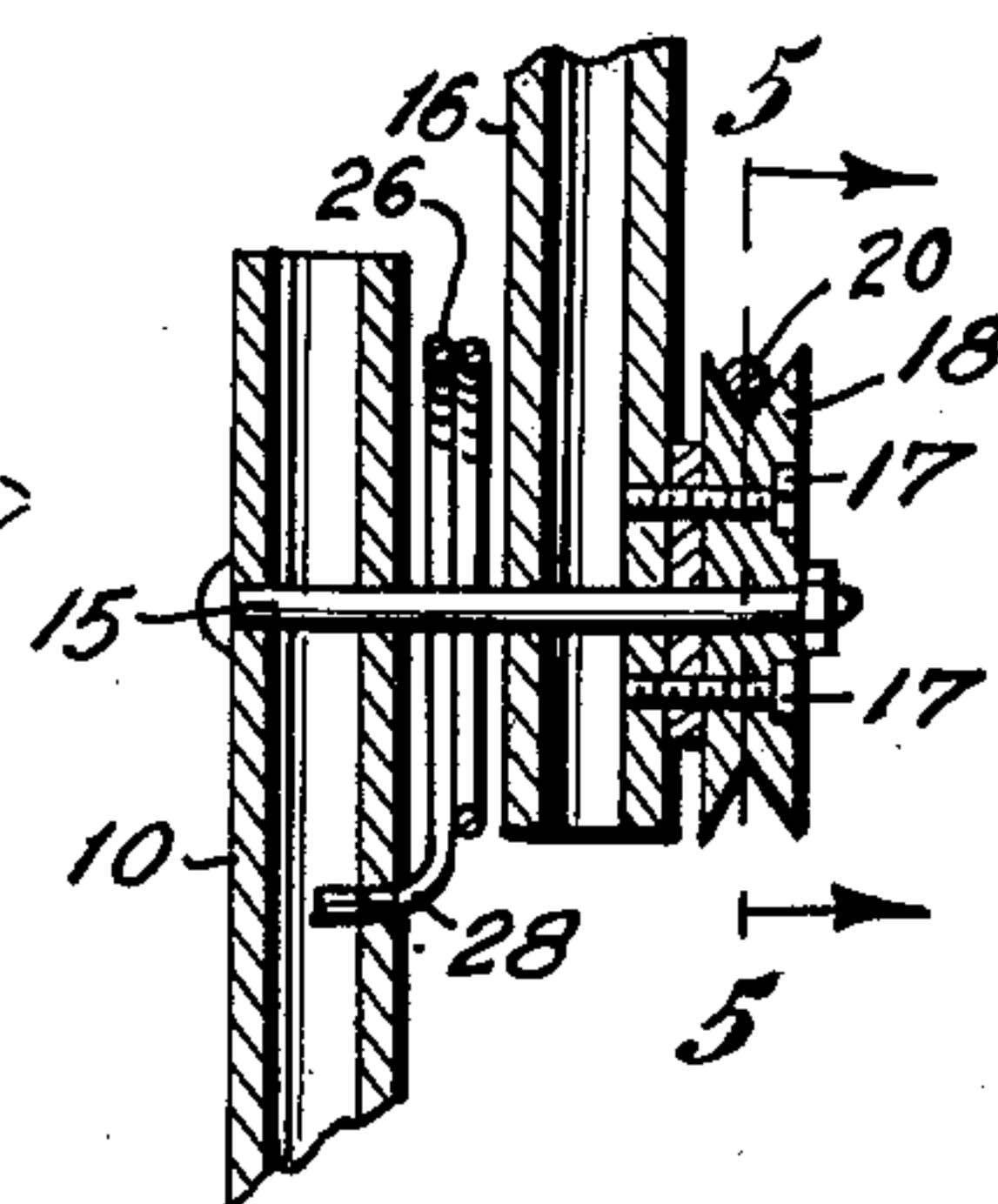
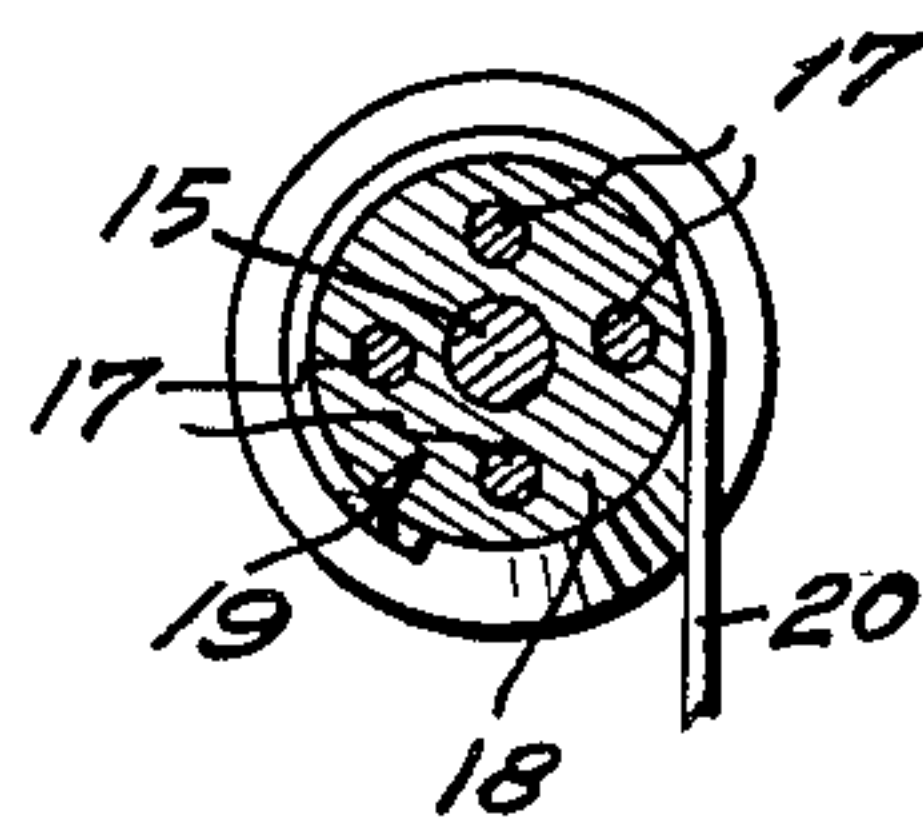


Fig. 5.



Inventor

Maurice H. Hollingsworth

By

Patrick D. Beavers

Attorney

Feb. 6, 1951

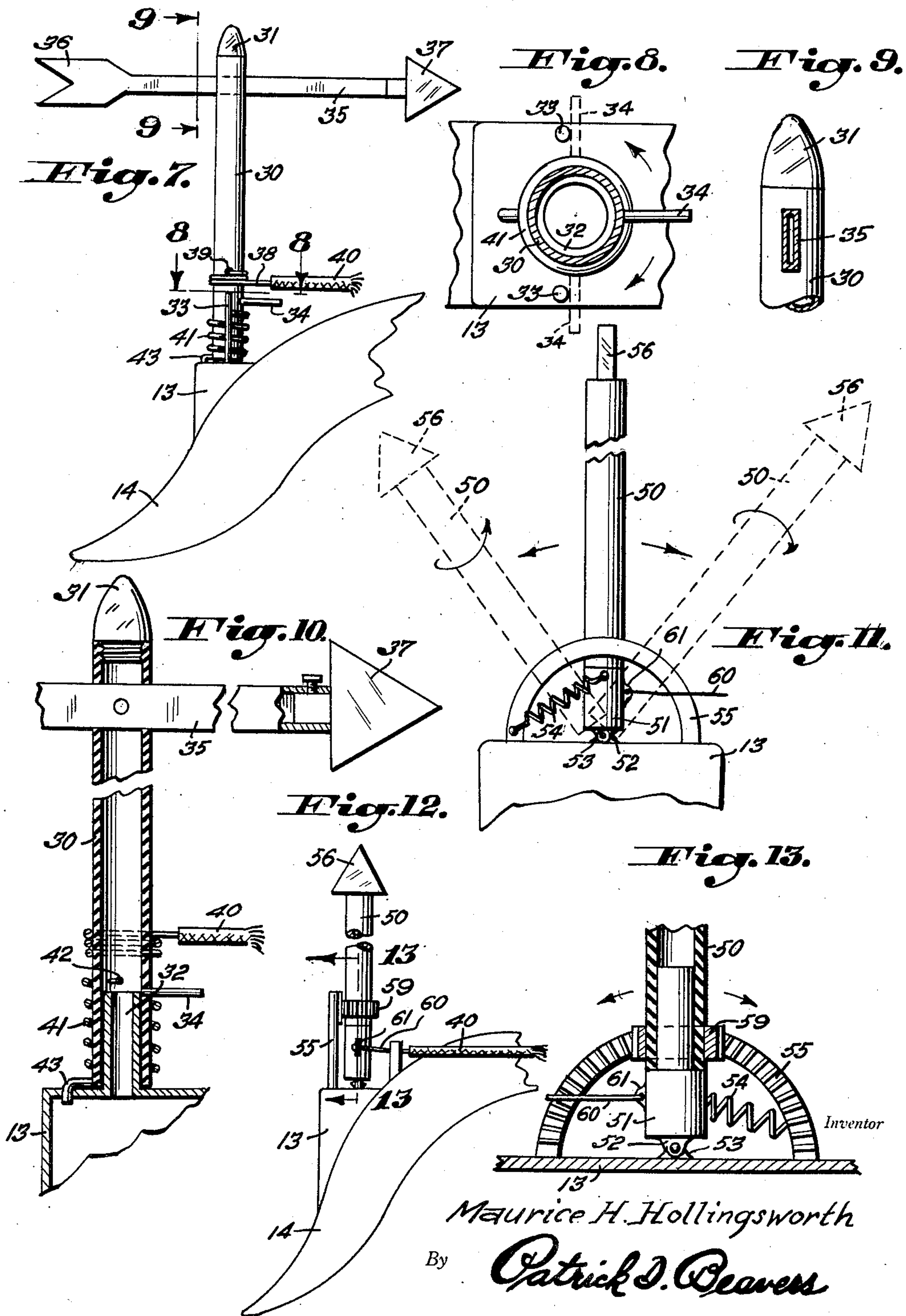
M. H. HOLLINGSWORTH

2,540,394

DIRECTION AND SAFETY SIGNAL FOR MOTORCYCLES

Filed Oct. 1, 1948

2 Sheets-Sheet 2



Maurice H. Hollingsworth
By Patrick D. Beavers

Attorney.

UNITED STATES PATENT OFFICE

2,540,394

DIRECTION AND SAFETY SIGNAL FOR MOTORCYCLES

Maurice H. Hollingsworth, Corpus Christi, Tex.

Application October 1, 1948, Serial No. 52,195

1 Claim. (Cl. 116—52)

1

The present invention relates to direction and safety signals for motorcycles and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

It is an object of the present invention to provide a combined direction and safety signal for motorcycles.

Another object of the invention is to provide a signal for motorcycles which will be visible in all horizontal directions.

Another object of the invention is the provision of an illuminated direction indicator for motorcycles which is simple in operation and easily controlled from a position convenient to the operator.

Another object of the invention is the provision of novel means for mounting a directional indicator.

Another object of the invention is the provision of a device of the character set forth which is so constructed as to afford a maximum of safety to the operator of a motorcycle in the event of a collision.

A further object of the invention is the provision of a directional indicator having an arrow forming a part of the invention and novel means for selectively rotating the arrow from a remote position to indicate to following traffic the direction of an intended turn.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

Figure 1 is a side elevational view of an embodiment of the invention mounted upon a motorcycle,

Figure 2 is an enlarged fragmentary side elevational view, partly in section, of the invention shown in Figure 1,

Figure 3 is a fragmentary rear elevational view thereof,

Figure 4 is an enlarged sectional view taken along line 4—4 of Figure 3,

Figure 5 is a sectional view taken along line 5—5 of Figure 4,

Figure 6 is a perspective view of an element of the invention shown in Figures 1 to 5, inclusive,

Figure 7 is a side elevational view of a modified form of the invention,

Figure 8 is an enlarged sectional view taken along line 8—8 of Figure 7,

Figure 9 is an enlarged sectional view taken along line 9—9 of Figure 7,

Figure 10 is an enlarged vertical sectional view,

2

partly in elevation, of the device shown in Figure 7,

Figure 11 is a rear elevational view of a further modification of the invention,

Figure 12 is a reduced side elevational view of Figure 11, and

Figure 13 is an enlarged sectional view taken along line 13—13 of Figure 12.

Generally there is provided a combined safety signal and direction indicator for motorcycles comprising a vertically extending pole adapted to be mounted upon the rear of a motorcycle preferably to that portion of the rear fender adapted to hold the conventional license plate.

The pole is preferably formed of rubber which will remain normally rigid but which is yieldable in the event of a collision with other objects.

Atop the pole, which in some instances is above the height of an operator seated in the motorcycle saddle, there is pivotally mounted an illuminated arm, preferably in the form of an arrow, and there is provided means for selectively moving the arm to the right or to the left from a control lever mounted conveniently to the operator.

Spring means is provided for returning the arm to a normal vertical position. In a modified form of the invention, the pole is shortened and is provided with a normally forwardly pointed arrow adjacent the illuminated top of the pole and the arrow itself is also illuminated.

Means is provided whereby the operator may move the pole itself to right or left and at the same time automatically turn the pole to display the arrow in such manner that it points to the right or to the left as the case may be. A further modification of the invention discloses a vertically extending pole having an illuminated arrow of the kind just described adjacent the top of the pole and means for turning the pole upon its axis whereby to display the arrow selectively to the right or to the left.

Referring now more particularly to the drawings, there is shown therein in Figures 1 to 6, inclusive, one form of the invention in which a vertically extending hollow pole 10 formed of rubber of a consistency which will normally remain in the position shown but which will yield upon encountering another object and which pole is mounted in a socket 11 having a coil spring 12 in the bottom thereof and which socket is affixed to the license plate portion 13 of the rear fender 14 of a motorcycle.

Adjacent the top of the pole 10 there is provided a horizontally extending axle 15. A hollow arm 16 is pivotally mounted upon the axle 15 and

3

has affixed forwardly thereof, by means of screws 17 or the like a pulley 18 to which is affixed by means of a nail 19 or the like one end of a cable 20. The cable 20 extends through a cable housing 21 along the side of the pole 10 and socket 11 and is held thereto by means of clamps 22. It then extends forwardly and is affixed to the lower end of a lever 23 which is provided with an operating handle 24 at its upper end.

The free end of the arm 16 is provided with a transparent lamp housing 25 and a coil spring 26 encircles the axle 15 between the pole 10 and the arm 16 and is provided with an integrally formed hook 27 which bears against the arm 16 and a like integrally formed hook 28 which bears against the pole 10.

In the operation of this form of the invention it will be apparent that, if the motorcycle operator desires to indicate a turn to the right, he will draw the handle 24 rearwardly. This action will cause the lower portion of the lever 23 to move forwardly thereby imparting a movement to the cable 20 which will cause the pulley 18 to rotate in a clockwise direction as viewed in Figure 5 and thereby cause the arm 16 to move to the right as viewed from the rear of the motorcycle. To return the arm to normal upward position, it is necessary only to allow the handle to return midway of a bar 29 which is provided with suitable latch notches (not shown). The spring 26 is so constructed that it will normally urge the arm 16 to indicate a turn to the left as viewed from the rear of the motorcycle. Hence, releasing the handle 24 and allowing the same to move forwardly will allow the spring 26 to so move the arm 16. It will be understood that in this and the modified forms of the invention to be hereinafter described a suitable lamp will be provided within the housing 25 and that connecting wires may be disposed within the hollow portions of the arm 16 and pole 10.

In the form of the invention shown in Figures 7 to 10, inclusive, there is provided a vertically extending arm 30 formed of rubber as aforesaid and provided at its upper end with a lamp housing 31 and which is revolubly mounted upon a vertical cylindrical extension 32 of the license plate portion 13 of a motorcycle rear fender.

At either side of the pole 30 there is provided a vertically extending stop member 33 which stop members are mounted in the top of the portion 13 and the pole is provided with a forwardly extending pin 34. Adjacent the upper end of the pole 30 there is mounted a normally forwardly extending arm 35 which is in the form of an arrow and provided with a tail portion 36 and a head portion 37, which latter is formed of transparent material and provides a housing for an electric lamp (not shown).

A cable 38 is affixed to the pole 30, as indicated at 39, and is wound several turns therearound. The cable 38 extends through a cable housing 40 to a lever convenient to the operator as above described.

A coil spring 41 has its upper end affixed to the pole 30, as shown at 42 and encircles the pole and has its lower end affixed to the portion 13 as shown at 43.

In this form of the invention, it will be seen that the spring 41 will normally hold the pole in such position that the pin 34 will rest against one of the stop members 33 at which time the arrow 35 will be pointed to the left. Movement of the lever 24 will cause the pole 30 to rotate against the action of the spring 41 and it will be apparent that when the pin 34 is pointed in a

4

forward direction, the arrow will likewise be pointed forwardly and that, when the pin bears against the right stop member 33, that the arrow will point to the right as viewed from the rear of the motorcycle.

In the form of the invention shown in Figures 11 to 13, inclusive, there is shown a pole 50 of rubber as heretofore described revolubly mounted in a socket 51 having a dependent dog 52 pivotally connected to an upwardly extending dog 53 upon the portion 13 of the fender 14. A tension spring 54 interconnects the rear of the socket 51 and one end of a segmental gear 55 affixed to the portion 13 at the rear of the pole 50. The spring 54 connects that end of the gear 55 which is at the left when viewed from the rear of the motorcycle.

At the upper end of the pole 50 there is provided a lamp housing 56 in the form of an arrow head. Adjacent the lower end of the pole 50 there is affixed a gear wheel 59 which is engaged with the segmental gear 55. A cable 60 is connected to an ear 61 on the socket 51.

In the operation of this form of the invention, it will be understood that an operating handle will be provided at a point convenient to the driver in the manner aforesaid and that the spring 54 will normally hold the pole 50 in a position to the left of the segmental gear 55 as viewed from the rear of the motorcycle and that the other positions, that is to say the vertical position and the position to the right may be caused by drawing the cable 60 against the action of the spring 54. When the pole 50 in its vertical position, the head 56 will be held in a horizontal position parallel with the longitudinal axis of the motorcycle. Rotation of the same to the left will cause the pole 50 to revolve in a counterclockwise direction as viewed from above and rotation of the socket to the right will cause a clockwise movement of the pole 50 as viewed from above. Thus it will be seen that when the pole 50 is moved to the left that the arrowlike head 56 will point to the left and that when the pole 50 is moved to the right the head 56 will point to the right due to the action of the gear 59 with the segmental gear 55.

In all forms of the invention shown in Figures 7 to 13, inclusive, it will be apparent that the pole may be colored relatively dark on that portion showing to the rear when the same is in normal upright position and that relatively light on its forwardly exposed surface. Hence, when the same is turned to the right or left a strip of the light colored (or light-reflecting, if desired) portion of the pole will be exposed to the rear, thus attracting additional attention to the signal.

While but certain forms of the invention have been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claim.

What is claimed is:

A device of the character described comprising a base, a laterally revoluble member pivotally connected at its lower end to said base, an outwardly extending pin formed integrally with the upper end of the laterally revoluble member, a hollow cylindrical pole encompassing said pin and axially revoluble upon said laterally revoluble member and having an outer and an inner end, a segmental gear mounted upon said base adjacent the inner end of the pole and parallel to

5

the path of travel of said laterally revoluble member, a ring gear formed on the outer side of the inner end of said pole and enmeshed with said segmental gear, a lamp housing carried at the outer end of the pole, a lamp in said housing, and remotely controlled means for oscillating the laterally revoluble member, said means including a spring interconnecting the pole adjacent the lower end thereof and one end of said segmental gear, and a cable affixed to the pole adjacent its lower end and extending to a remote position.

MAURICE H. HOLLINGSWORTH.

6

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,337,405	Kovzovich -----	Apr. 20, 1920
1,392,506	Kiessling -----	Oct. 4, 1921
1,522,388	Quintal -----	Jan. 6, 1926
1,614,766	Aderer -----	Jan. 18, 1927
1,624,236	Hammersley -----	Apr. 12, 1927
1,684,806	Reed -----	Sept. 18, 1928
2,307,798	Kook et al. -----	Jan. 12, 1943