United States Patent [19]

Zweigle

[11] **3,905,151**

[45] **Sept. 16, 1975**

[54] **VELOCIPEDE NOISEMAKER**

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[52] **U.S. Cl.** ..... **46/174;** 46/175 R; 46/189

[51] **Int. Cl.²** **A63H 5/00**

[58] **Field of Search** ..... 46/174, 175, 189, 191; 40/125 H, 125 F

[56] **References Cited**

UNITED STATES PATENTS

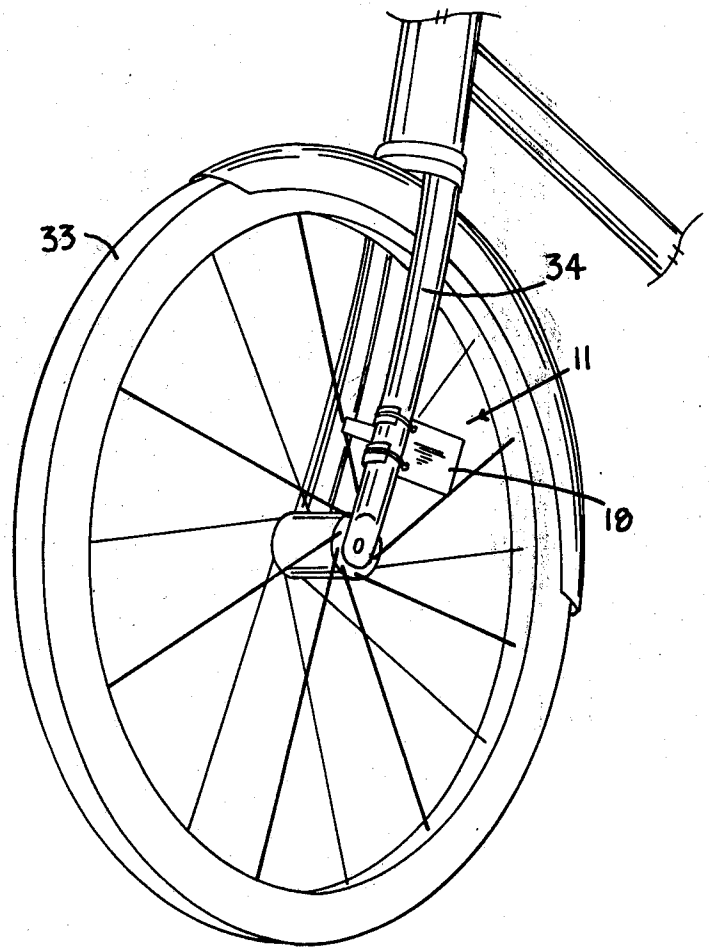
2,736,136	2/1956	Modlin	46/175 R
2,940,215	6/1960	Munro	46/175 R

Primary Examiner—Louis G. Mancene
Assistant Examiner—Robert F. Cutting

[57] **ABSTRACT**

A noisemaker for attachment to the frame of a velocipede. A reed engages the spokes of a wheel and is held in place by fingers which partially encircle the frame. The fingers are held in place by a connector such as cord, wire or rubber bands.

9 Claims, 5 Drawing Figures



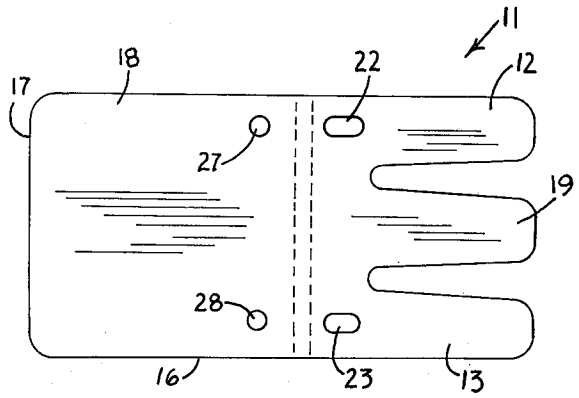


FIG. I

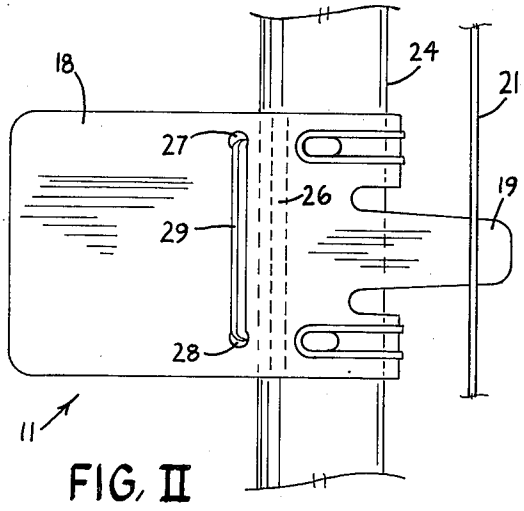


FIG. II

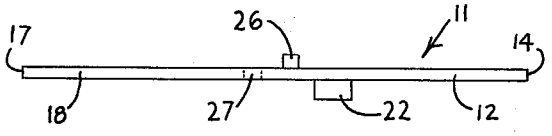


FIG. III

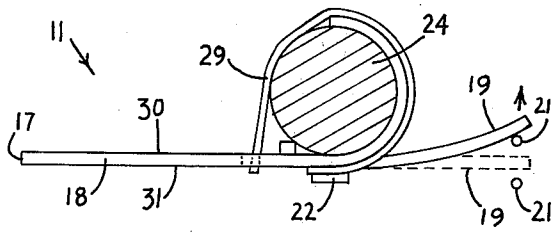


FIG. IV

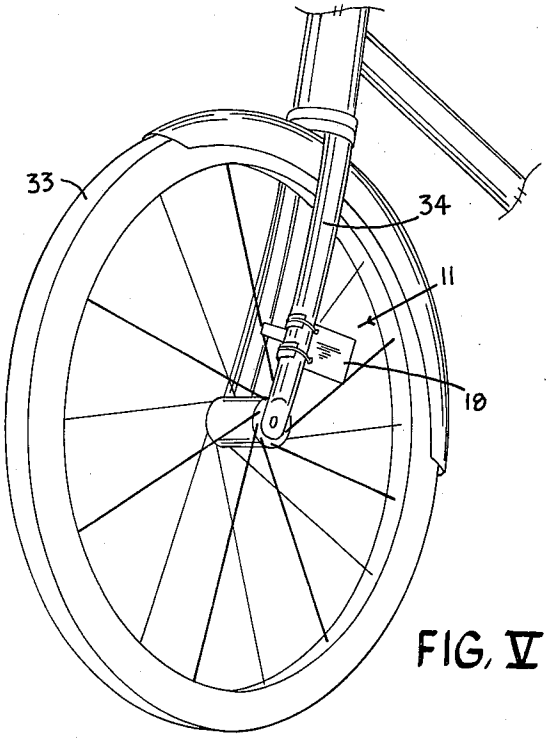


FIG. V

VELOCIPEDE NOISEMAKER

BACKGROUND

A primary object of this invention is to provide a noise making attachment mounted on the frame of a velocipede adjacent one of the spoked wheels.

Much of the prior art such as U.S. Pat. Nos. **2,940,215, 2,894,357, 2,624,156,** and **2,736,136** use elaborate methods of attaching a noise making device to the frame of a velocipede. In U.S. Pat. Nos. such as **-136, -357,** and **-156,** the elements used to connect the device to the frame of the velocipede are separate from the noise making reed. Some of these devices, like the prior art, are difficult to apply. Examples of these difficult to apply devices are illustrated in U.S. Pat. Nos. **-156** and **-357.** Therefore, an object of this invention is to provide a noise making device which can be attached to the frame of a velocipede which requires no special tools such as wrenches, screw drivers or the like.

Other devices such as that illustrated in the U.S. Pat. No. **-215** use a relatively insecure method of attachment of a device to the frame of a velocipede. The invention, on the other hand, uses a very simple but secure means of attachment which even a child can master in the application of the noise making device to the velocipede.

Further, much of the prior art is complicated in design. An illustration of this complication in design is noted in U.S. Pat. No. **3,097,447** and U.S. Pat. No. **2,874,514.** The invention, on the other hand, is a simple, flexible planar casting which is simple to manufacture and apply. It is not formed from complicated shapes. In spite of this the invention embodies all of the advantages of a sounding board in a design which is uncomplicated, easy to attach and easy to manufacture.

Other features and advantages of the invention will become apparent from reference to the drawings in which:

FIG. **1** is a plan view of a noise making device in accordance with the present invention;

FIG. **2** is a plan view of the noisemaker applied to a frame of a velocipede;

FIG. **3** is a front view of a noise making device in accordance with the present invention;

FIG. **4** is a front view of a noise making device applied to the frame of a velocipede; and

FIG. **5** is a perspective view illustrating the method of attachment of the noise making device to the frame of a velocipede.

Refer first to FIG. **1** of the drawings which illustrates a plan view of the noisemaker **11.** The noisemaker **11,** as illustrated in a preferred embodiment, is generally rectangular in shape and has first and second fingers **12** and **13** respectively. These fingers **12** and **13** extend from a first end **14** of the noisemaker body **16** and are formed by substantially parallel slots ending from the first end **14** above the noisemaker **11.**

A second end **17** of the noisemaker **11** is a sounding board **18** which amplifies the noise which is generated by reed **19.** Reed **19** is better illustrated in FIG. **2** of the drawings where it is shown in contact with a spoke **21** of a spoked wheel **33** of a velocipede. As the spoke **21** moves past the reed **19,** it engages the outer end of the reed **19** and bends the reed **19** and releases it for successive contact with the following spoke to generate sound which is amplified by sounding board **18.**

Refer again to FIG. **1** of the drawings in which tabs **22** and **23** are illustrated on a front or first side of the body **16.** These tabs **22** and **23** are substantially aligned with the longitudinal axis of fingers **12** and **13** respectively. The tabs **22** and **23** extend from the first side **31** of the body **16,** as illustrated in FIG. **3** of the drawings. The tabs **22** and **23** can be elongated as illustrated in FIG. **1** or they may be simply cylindrical or take a similar shape. What is important is that they extend far enough from the first side **31** of the body **16** so that a connecting element can be secured to the tabs **22** and **23** in order to attach the noisemaker **11** to the frame **24** of a velocipede.

The noisemaker **11** also contains a stop means or rib **26** on the body **16** opposite tabs **22** and **23** which acts as a stop means for positioning the noisemaker **11** on the frame **24.** The function of this rib **26** is best illustrated in FIG. **4** of the drawings where it is shown engaging frame **24** to prevent the attached noisemaker **11** from slipping around the frame **24.** A preferred embodiment utilizing this rib **26** is illustrated in FIGS. **1** and **2** where the rib **26** is shown to extend from edge to edge of the body **16** and is positioned perpendicular to the longitudinal axis of the noisemaker **11.** The rib **26** is shown to be continuous rib extending from edge to edge of the noisemaker body **16;** however, this is not necessary. The rib **26** could terminate short of the edges of the noisemaker **11,** and it need not be continuous throughout its length. Added strength is achieved, however, if the rib **26** is a continuous rib.

Refer again to FIG. **1** of the drawings which further illustrates apertures **27** and **28** which are located in the body **16** of the noisemaker **11.** The apertures **27** and **28** are located in the sounding board **18** and beyond the location of rib **26.** These apertures may be located almost anywhere in or near the sounding board **18** of the body **16,** but preferably they are located just beyond the rib **26** and substantially in alignment with tabs **22** and **23** respectively. These apertures **27** and **28** cooperate with the fingers **12** and **13** and with tabs **22** and **23** respectively to form a means for attaching the noisemaker **11** to the frame **24** of the velocipede.

The best illustration of the method of attaching the noisemaker **11** to the frame **24** of a velocipede is illustrated by reference to FIGS. **2** and **4** of the drawings. The noisemaker **11** is positioned so that the body **16** is substantially perpendicular to the spokes **21** of the velocipede wheel **33.** The reed **19** is extended into the path of the rotating spoke **21** so that it will engage the spoke **21.**

Each of the fingers **12** and **13** is then wrapped about the frame **24** of the velocipede. The frame **24** need have no special shape. It can be circular in cross section, elliptical in cross section, or take some irregular shape. The fingers **12** and **13** are sufficiently flexible to be wrapped about the frame **24** so that the frame **24** is at least partially encircled as illustrated in FIG. **4** of the drawings. Since fingers **12** and **13** must be wrapped to the extent illustrated, and since the reed **19** must be capable of repeated flexing, the material used to make the noisemaker **11** is preferably a plastic material such as nylon. There are other plastics that work equally well and also a thin metal sheet might be used to make the noisemaker **11.** The preferred material, however, is a nylon type plastic because of the fact that the noise-

maker 11 may be simply cast with all of the various shapes heretofore described.

After the fingers 12 and 13 are wrapped about the frame 24, one end of a rubber band 29 may be placed over tab 22 and extended along the longitudinal axis of finger 12 to encircle the frame 24 as illustrated in FIG. 4 of the drawings. The unconnected end of the rubber band 29 is then threaded through aperture 27 from the back side 30 of the noisemaker 11. Thereafter, the rubber band 29 extends along the front surface 31 of the noisemaker 11 and is threaded through aperture 28. The loose end of the rubber band 29 is then directed along substantially the longitudinal axis of finger 13 in a direction opposite to that it took in its placement around finger 12 until the free end of the rubber band 29 is looped over tab 23.

Thus positioned, the rubber band 29 will be observed to force, because of its resiliency, both fingers 12 and 13 to at least partially encircle the frame 24 to hold the noisemaker 11 in contact with frame 24 and position reed 19 in the path of rotation of velocipede spoke 21.

Rib 26 engages surface 32 of the frame 24 and prevents the entire noisemaker 11 from being rotated about the frame 24 as the spoke strikes the reed 19 and bends it, as illustrated in FIG. 4 of the drawings. Again it is noted that this rib 26 preferably extends perpendicular to the longitudinal axis of the noisemaker 11 which thereby positions the noisemaker 11 with its longitudinal axis perpendicular to the axis of the frame 24. The reed 19 likewise is perpendicular to the rotating spoke 21 when positioned in this manner.

The noted configuration in FIG. 4 of the drawings illustrates the reed 19 in the unflexed position, and the solid drawing shows the reed 19 in the flexed position as it is about to disengage spoke 21. Sounding board 18 is vibrated as the reed 19 disengages spoke 21, thereby amplifying and enhancing the noise making qualities of the noisemaker 11.

A cord might be used in place of rubber band 29 in order to secure the device to the frame 24. If a cord is used, the cord can be placed about fingers 12 and 13 respectively and through apertures 27 and 28 respectively, as illustrated for the rubber band. Since the cord is not flexible, it may simply be tied about tab 23 in order to complete a loop to secure the noisemaker 11. A similar method of attachment of the device may be used if wire is chosen as the securing element. A twist in the wire may simply be applied to the wire about tab 23 in order to complete attachment of the noisemaker 11.

FIG. 5 of the drawings illustrates a wheel 33 of a velocipede with the noisemaker 11 attached to a fork 34. As the wheel moves forward, the spokes 21 strike the reed 19 and create a motor-like noise. A single noisemaker 11 might be used on such a fork 34, or a number of such devices may be applied to the fork depending upon the length of the fork or frame. For instance, several noisemakers might be placed on either side of fork 34.

The above description of the invention is merely illustrative of the principles of the invention and many variations might be adopted by those skilled in the art which employ the principles set forth herein. For instance, the apertures 27 and 28 do not have to be exactly aligned with tabs 22 and 23 but may be unaligned with the tabs 22 and 23 and/or they may be misaligned with each other. Alignment with these apertures 27 and 28 is not critical, although a preferred embodiment is illustrated in FIG. 2 of the drawings in which the apertures 27 and 28 are aligned with tabs 22 and 23 along the longitudinal axis of the fingers 12 and 13 respectively.

Further, the body 16 of the noisemaker 11 need not be of uniform thickness throughout as illustrated in FIG. 3 of the drawings. The reed and finger portion of the noisemaker 11 might be thicker or thinner than the sounding board 18 of the noisemaker 11, thereby creating different sounds and different degrees of flexibility depending upon, of course, the choice of material from which the noisemaker 11 is made. These and other variations might be made to the noisemaker without departing from the spirit and scope of the invention.

What is claimed is:

1. A noisemaking device adapted to be attached to a velocipede support adjacent a spoked wheel which comprises a substantially planar sheet of flexible material forming a body, said body having first and second fingers, a reed extending from a first end of said body and formed by substantially parallel slots extending from said first end and terminating near the center of said body, said reed being intermediate said fingers, first and second tabs extending from a first side of said body and aligned with the longitudinal axis of said first and second fingers respectively, said body having first and second apertures in said body, stop means on a second side of said body beyond the terminations of said slots and positioned between said tabs and apertures and a connecting element attached to said first and second tabs and engaging said first and second fingers and extending through said first and second apertures to form said first and second fingers about said support to secure said noisemaking device to said velocipede and hold said reed in position to contact spokes of said spoked wheel.

2. The structure as defined in claim 1 in which said stop means is a rib which extends perpendicular to the longitudinal axis of said body and is located near the center of said body and on the side of the body in contact with the velocipede support.

3. The structure as defined in claim 1 in which the connecting element is made of a non-stretchable material.

4. The structure as defined in claim 1 in which the connecting element is made of a stretchable material.

5. The structure as defined in claim 1 in which the connecting element is a rubber band.

6. The structure as defined in claim 1 in which the body is a plastic material.

7. The structure as defined in claim 2 in which a sounding board and reed are perpendicular to the spoke of the velocipede.

8. The structure as defined in claim 1 in which the fingers are equal in length to said reed.

9. The structure as defined in claim 1 in which the fingers only partially encircle the velocipede support.

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