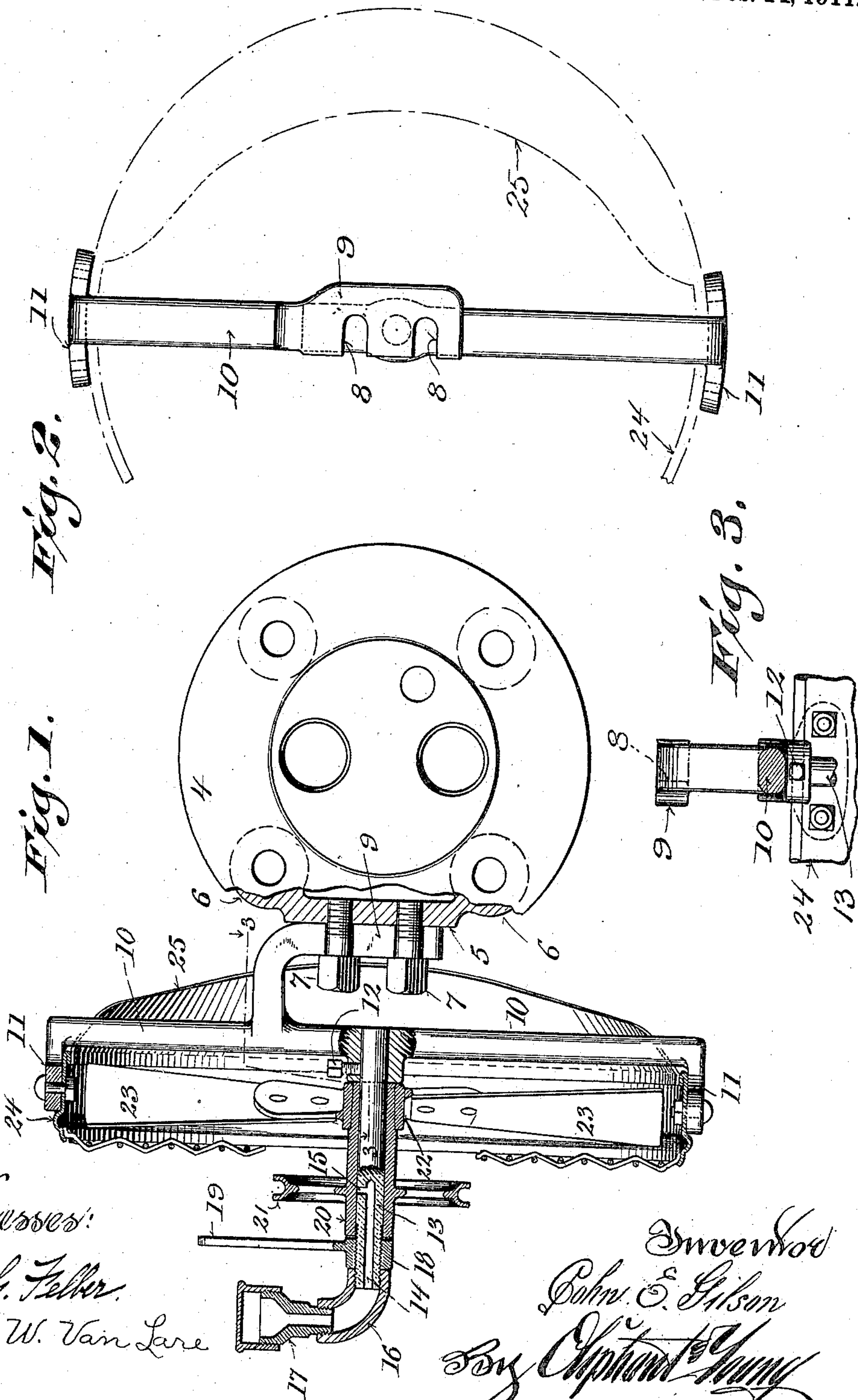


984,208.

J. E. GILSON.  
FAN ATTACHMENT.  
APPLICATION FILED JUNE 14, 1909.

Patented Feb. 14, 1911.



Witnesses:  
George H. Feller.  
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# UNITED STATES PATENT OFFICE.

JOHN E. GILSON, OF PORT WASHINGTON, WISCONSIN, ASSIGNOR TO GILSON MANUFACTURING COMPANY, OF PORT WASHINGTON, WISCONSIN.

## FAN ATTACHMENT.

984,208.

Specification of Letters Patent. Patented Feb. 14, 1911.

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*To all whom it may concern:*

Be it known that I, JOHN E. GILSON, a citizen of the United States, and resident of Port Washington, in the county of Ozaukee and State of Wisconsin, have invented certain new and useful Improvements in Fan Attachments; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is hereinafter particularly set forth with reference to the accompanying drawings and pointed out in claims, its object being to improve the apparatus set forth in Patent No. 875,991 of January 7, 1908.

Figure 1 of the drawings represents a partly sectional end view of my improved apparatus in connection with the cylinder of an internal-combustion engine; Fig. 2, an inner side elevation of a fan-case supporting bracket constituting part of said apparatus, the fan-case being indicated by dotted lines in this view, and Fig. 3, a plan view of the bracket partly in horizontal section on the planes indicated by lines 3—3 in Fig. 1, a fragment of the fan-casing being included in this view.

Referring by numeral to the drawings, 4 indicates the head of the cylinder of an internal-combustion engine, the inner side of said head being shown. A web 5 between a pair of outer bosses 6 of the cylinder-head is engaged by bolts 7, and these bolts also engage notches 8 in an arm 9 that is offset from one side of a bar 10, between the ends of the same and adjacent to the center thereof, the notched portion of the arm being parallel to the bar. The other side of the bar is provided with end flanges 11 that extend at right-angles to the same and said bar and the arm 9 constitute a bracket that is preferably a one piece casting. Because of the notches in the arm, the bracket may be readily placed or displaced, with reference to the cylinder-web 5, without removal of the bolts 7, it only being necessary to turn these bolts out far enough to obtain a clearance for said arm sufficient to permit of said notches therein being engaged with the aforesaid bolts or disengaged therefrom.

The outer side of the bar 10 of the bracket is provided midway of its ends with a boss, and detachably secured in the boss, by a set-bolt 12, is an arbor 13 having a bore 14 and a port 15 leading from the bore. In

screw-thread connection with the bore-end of the arbor is a stop in the form of a union 16 in like connection with a lubricant-cup 17 having a removable cap, and a lock-nut 18 on said end of said arbor, in opposition to said stop, is provided with a lever-arm 19 to permit of its adjustment without the aid of a wrench.

Loose on the arbor, back of the lock-nut, is the hub 20 of a driving-pulley 21, and rigidly secured on the pulley-hub, by driving-fit or otherwise, is a screw-propeller 22 having vanes 23 fastened to its blades to therewith constitute a rotary fan for which a suitable casing is bolted or otherwise rigidly secured to the end flanges 11 of the bracket-bar aforesaid. The fan-casing herein shown is similar to the one disclosed in the patent aforesaid or in other words it consists of an annular band 24 concentric to the fan and having a segmental hood extension 25 in rear of the aforesaid bracket, said extension constituting an inwardly inclined deflector, the angle of which is sufficient to direct some air from said fan directly against the cylinder head of the engine or toward the fan-axis, the remainder of the air being directed toward said cylinder lengthwise of same.

An outer protective screen of suitable wire-mesh netting is shown in connection with the band 24 of the fan-casing, and said screen is provided with a central opening through which to pass the driving-pulley 21 when the apparatus herein specified is being assembled.

The peculiar bracket aforesaid effectually prevents displacement of the fan-casing and fan incidental to vibration, and the general construction and arrangement of the various parts of the entire apparatus is advantageous in every particular.

I claim:

1. In a fan-attachment, a bracket consisting of a bar having an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; a casing in rigid connection with the ends of the bar, an arbor in similar connection with said bar to extend from the other side thereof central of the casing, and a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing.



2. In a fan-attachment, a bracket consisting of a bar having an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being provided with notches for the engagement of bolts by which to secure the bracket to a support; a casing in rigid connection with the ends of the bar, an arbor in similar connection with said bar to extend from the other side thereof central of the casing; and a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing.

3. In a fan-attachment, a bracket consisting of a bar having end flanges at right-angles thereto and provided with an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; a casing in rigid connection with said flanges of the bar, an arbor in similar connection with said bar to extend from the other side thereof central of the casing, and a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing.

4. In a fan-attachment, a bracket consisting of a bar having a central boss upon one of its sides and an arm offset from its other side between its ends adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; an arbor and means for rigidly securing the same in detachable engagement with said boss, a casing in rigid connection with the ends of said bar, and a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing.

5. In a fan-attachment, a bracket consisting of a bar having an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; a casing in rigid connection with the

ends of the bar, an arbor in similar connection with said bar to extend from the other side thereof central of the casing, a driving-pulley having its hub loose on the arbor, and a fan fast on the pulley hub within said casing.

6. In a fan-attachment, a bracket consisting of a bar having an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; a casing in rigid connection with the ends of the bar, an arbor in similar connection with said bar to extend from the other side thereof central of the casing, a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing; a stop on the outer end of said arbor, and a nut threaded on the aforesaid arbor between the stop and the hub of the pulley.

7. In a fan-attachment, a bracket consisting of a bar having an arm offset from one side thereof between its ends and adjacent to its center, a portion of the arm parallel to the bar being for connection with a support; a casing comprising an annular band, in rigid connection with the ends of the bar, and a centrally open wire-mesh screen fastened to the band; an arbor in similar connection with said bar to extend therefrom through the central opening of said screen, and a combined driving-pulley and fan loose on the arbor, the fan being rotative within said casing.

In testimony that I claim the foregoing I have hereunto set my hand at Port Washington in the county of Ozaukee and State of Wisconsin in the presence of two witnesses.

JOHN E. GILSON.

Witnesses:

T. A. BOERNER,  
A. J. BOERGER.