

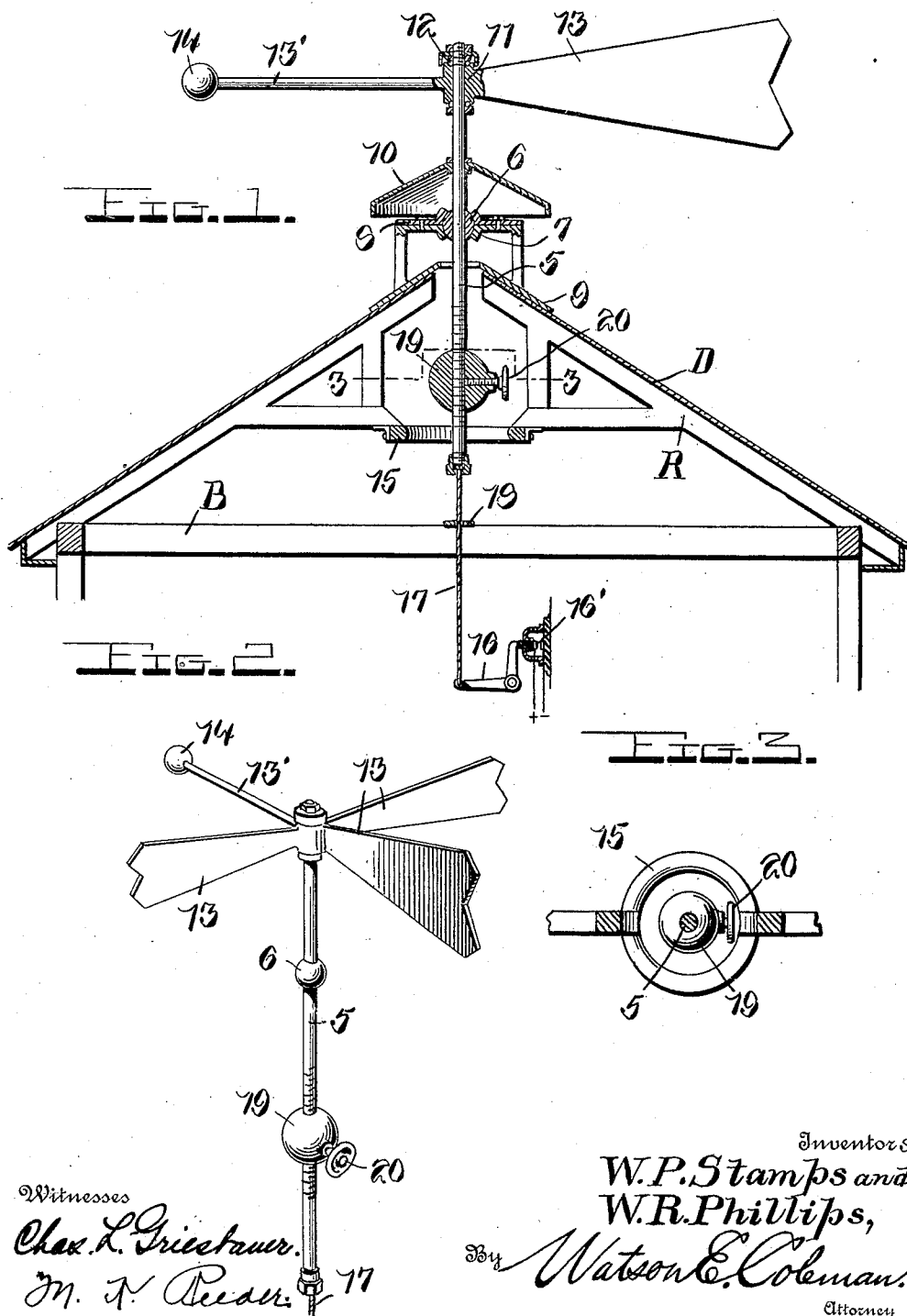
W. P. STAMPS & W. R. PHILLIPS.

ALARM DEVICE.

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988,395.

Patented Apr. 4, 1911.



Witnesses

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988,395.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM P. STAMPS, of Milvid, Liberty county, and WILLIAM R. PHILLIPS, of Munday, Knox county, Texas, citizens of the United States, have invented certain new and useful Improvements in Alarm Devices, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to an improved alarm device and has for its object to provide a simple and novel alarm for warning the inhabitants of a dwelling or other building of the approach of a wind storm.

15 A further object of our invention is to provide a wind actuated, electrically operated alarm, and adjustable means for regulating the wind velocity which is necessary to operate the alarm.

20 With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

25 Figure 1 is a vertical section through the roof of a dwelling and parts of the alarm device illustrating the preferred embodiment of the invention; Fig. 2 is a detail perspective view of the wind shaft and adjustable weight; and Fig. 3 is a section taken on the line 3—3 of Fig. 1.

30 Referring more particularly to the drawing D indicates the roof of a dwelling and R the rafters which support the same upon the transverse beams B.

35 A vertically disposed oscillatory shaft 5 extends above and below the roof of the dwelling as clearly shown in Fig. 1. This shaft is formed intermediate of its ends with a spherical enlargement 6 which is mounted in a socket 7 provided on the inner ends of the arms 8 which are formed upon the saddle plate 9, said plate being secured to the roof upon opposite sides of the rod 5 in any preferred manner. A hood 10 is secured upon the rod or shaft 5 and extends over the ball and socket joint just described to protect the same from the accumulations of dust.

40 Upon the upper end of the shaft 5 the vane 11 is rotatably mounted. Ball bearings 12 are preferably provided therefor so as to permit of its easy rotation in a light wind. 55 This vane comprises a central sleeve portion which is arranged between collars fixed upon

the shaft and from said sleeve portion a plurality of wings 13 are radially extended. As shown in the drawing three such wings are provided two of which extend in diametrically opposite directions. A rod 13' extends oppositely to the other of the wings 13 and has a balance weight 14 fixed upon its extremity, said weight acting to normally maintain the rod or shaft 5 in a perpendicular position. The oscillatory movement of the rod 5 is occasioned by the wind striking at a high velocity upon the wings 13 which will swing or oscillate the shaft 5 between the ends of the arms 8, an opening being provided in the saddle plate 9 to permit of a certain extent of movement of said shaft. To the inner ends of the rafters R an annulus 15 is secured below which the shaft 5 extends. This annulus is adapted to limit the swinging movement of the shaft.

At any convenient point within the house or dwelling a bell crank 16 is arranged. One end of this bell crank carries a contact 16' which is adapted to be engaged with a similar contact to connect an electric circuit and operate a bell, horn or other suitable signal. To the other end of the bell crank 16 one end of a wire, cord or other suitable flexible connection 17 is secured. This flexible connection extends through a guide 18 secured on one of the transverse beams B and has its other end fixed in any suitable manner to the lower end of the shaft or rod 5. It will thus be seen that when the shaft 5 is oscillated by the violence of the wind, the bell crank lever 16 will be moved through the flexible connection 17 to engage the contacts and connect the electric circuit, thus operating the alarm. In this manner the inhabitants of the dwelling may be warned of the approach of heavy wind storms which are liable to inflict considerable damage to life and property.

A weight 1 is longitudinally adjustable upon the rod or shaft 5 and is adapted to be secured in its adjusted position thereon by means of a set screw 20. It will be noted that the shaft 5 is graduated, and these graduations indicate different wind velocities. For instance, when the wind is blowing at a rate of about fifty miles an hour, the weight 19 will be in the position shown in the drawings and this velocity would be necessary to cause the oscillation of the shaft 5 and the operation of the alarm. By moving the weight 19 upwardly upon the shaft, the re-

quired velocity is accordingly decreased, until when the upper end of the weight 19 registers with the uppermost graduation, the rod 5 will be balanced and will not be oscillated by the lightest wind. It will therefore be obvious that by the mere adjustment of the sliding weight, the occupant of the dwelling may regulate the necessary wind velocity to operate the alarm as desired so that he will not be alarmed by slight storms.

From the foregoing it is believed that the construction and operation of our improved alarm device will be obvious. It is extremely simple and highly efficient in practical use. Its cost of manufacture is also extremely low and owing to its simplicity of construction the device will require but little repair after long continued use.

While we have shown the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of many minor modifications without departing from the essential feature or sacrificing any of the advantages of our invention.

Having thus described the invention what is claimed is:—

1. A device of the character described, comprising a shaft mounted for universal pivotal movement intermediate of its ends, a wind vane mounted to rotate on one end of the shaft, alarm operating mechanism, and a flexible connection between said mechanism and the other end of the shaft, substantially as and for the purpose specified.

2. A device of the character described comprising a vertically disposed oscillatory shaft, radiating wings mounted to rotate upon one end of the shaft, a balance weight extending oppositely to one of the wings to normally maintain the shaft in a perpendicular position, alarm operating mechanism, and a flexible connection between said mechanism and the other end of the shaft, substantially as and for the purpose specified.

3. A device of the character described comprising a vertically disposed shaft mounted intermediate of its ends for universal oscillatory movement, a plurality of radiating wings rotatably mounted upon one end of the shaft, a weight adjustable upon the other end of the shaft, alarm operating

mechanism, and a flexible connection between said mechanism and the other end of said shaft, substantially as and for the purpose set forth.

4. A device of the character described comprising a vertically disposed shaft mounted for universal oscillatory movement, means limiting the oscillation of the shaft, a plurality of radiating arms rotatably mounted on one end of the shaft, a weight longitudinally movable on the shaft and adapted to register with graduations marked thereon, a set screw extending through said weight for binding engagement upon the shaft to secure the weight in its adjusted position, an alarm operating mechanism, and a flexible connection between said mechanism and the lower end of the shaft, substantially as and for the purpose set forth.

5. In a device of the character described, the combination with a roof or support, of a saddle plate secured to the roof, opposed arms carried by the saddle plate having socket sections formed on their inner ends, a vertically disposed shaft provided with an enlargement intermediate of its ends mounted between the socket sections to support said shaft for oscillatory movement, said shaft extending above and below the roof or support, a plurality of radiating wings rotatably mounted upon the upper end of the shaft, a balance weight disposed opposite to one of said wings and adapted to normally maintain the shaft in a perpendicular position, means for regulating the resistance to wind velocity whereby a different velocity is necessary to overcome the balance weight and oscillate said shaft, an alarm operating mechanism, and a flexible connection between said mechanism and the lower end of the shaft, substantially as and for the purpose set forth.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM P. STAMPS.
WILLIAM R. PHILLIPS.

Witnesses:

W. H. PINKSTON,
W. A. CAMPBELL.