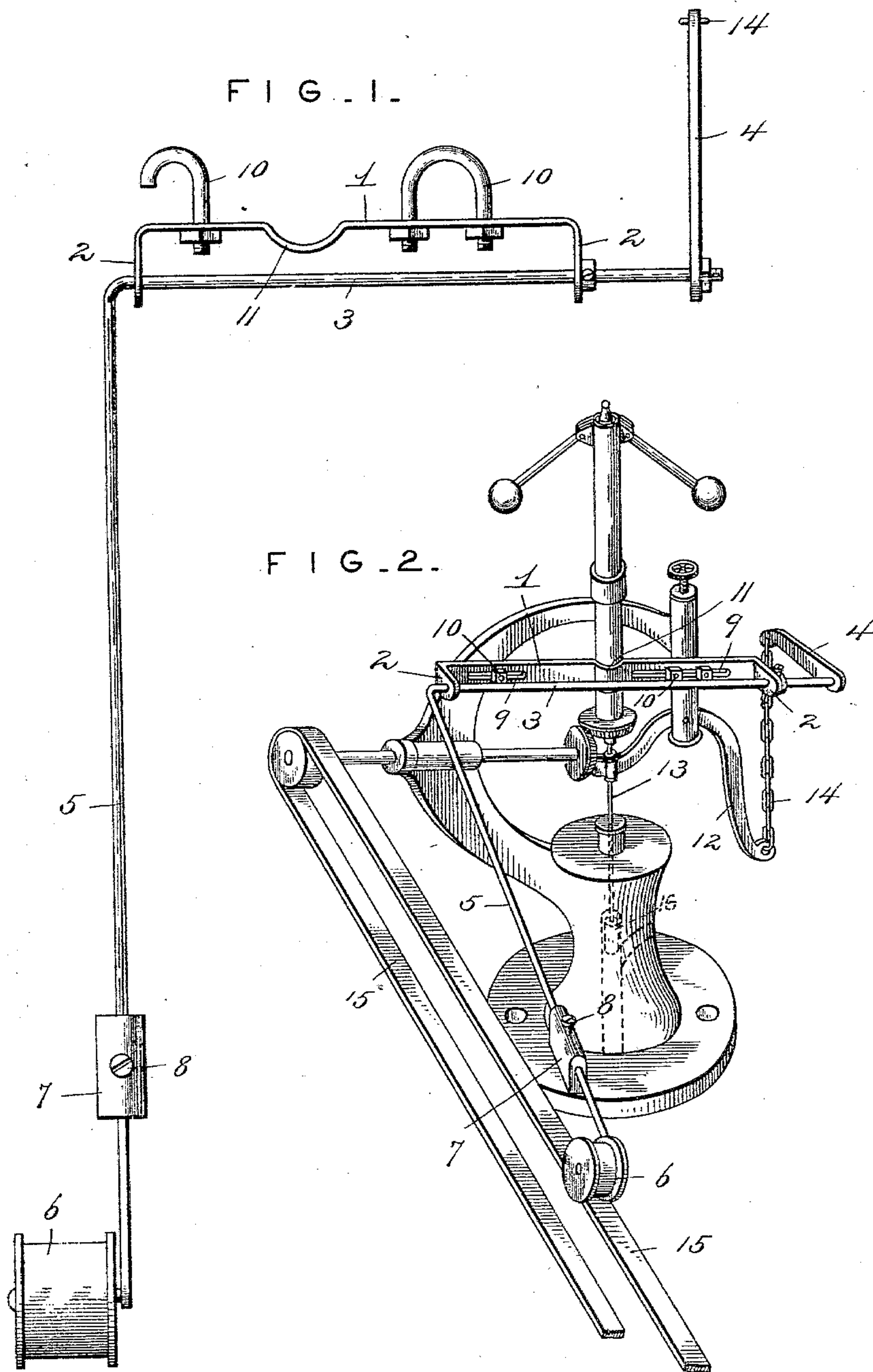


(No Model.)

F. S. WILCOX.
GOVERNOR FOR STEAM ENGINES.

No. 566,640.

Patented Aug. 25, 1896.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

FERDENAND S. WILCOX, OF IOLA, TEXAS.

GOVERNOR FOR STEAM-ENGINES.

SPECIFICATION forming part of Letters Patent No. 566,640, dated August 25, 1896.

Application filed January 18, 1896. Serial No. 576,008. (No model.)

To all whom it may concern:

Be it known that I, FERDENAND S. WILCOX, a citizen of the United States, residing at Iola, in the county of Grimes and State of Texas, have invented a new and useful Governor for Steam-Engines, of which the following is a specification.

This invention aims to provide an improved attachment to be used in connection with a steam-engine governor for shutting off the supply of steam to the engine in the event of the governor-belt breaking or slipping from the pulley, which is operatively connected with the weighted arms of the governor, so as to control the motion of the latter.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a top plan view of the attachment. Fig. 2 is a detail view showing the invention applied.

Similar and corresponding parts will be referred to and designated by the same reference-characters in the following description and the figures of the accompanying drawings.

The governor illustrated is of the usual type and is shown for the purpose of illustrating the application of the invention.

The plate 1 has its end portions 2 bent at about right angles and apertured to receive a rod 3, which is provided at one end with a radius-bar 4 and at its opposite end with a radius-arm 5, bearing a pulley 6 and having an adjustable weight 7, the latter being movable on the arm 5 and secured at the adjusted position by means of a binding-screw 8.

This plate 1 is formed with slots 9 near its ends, and clips or hooked bolts 10 are adapted to operate in the slots 9 and provide means for securing the attachment to the frame of the governor. By having the clips or fastenings 10 adjustably connected with the plate

1 the latter can be secured to different-sized governors and to governor-frames of different makes. The plate 1 is deflected between its ends, as shown at 11, so as to extend around the vertical portion of the governor-frame, in which the shaft carrying the weighted arms is journaled. The lever 12, operatively connected with the valve-stem 13, has attachment with the radius-bar 4 by means of a chain or similar part 14, so that in the event of the arm 5 falling below a normal position the connection 14 will be drawn upon and operate the lever 12, so as to shut off the steam from the engine in the usual way.

The attachment is applied to the governor-frame by means of the clips or fastenings 10 in the manner set forth, and the chain or connection 14 is coupled to the lever 12, and the pulley 6 is supported by the belt 15. Hence in the event of the said belt 15 breaking or slipping from either of its pulleys the arm 5, being unsupported, will gravitate by its superior weight and will cause the connection 14 to move the lever 12, so as to cut off the supply of steam to the engine, thereby stopping the latter.

The chain or connection 14 is sufficiently slack under normal conditions to admit of the valve 16 moving under the action of the governor-arms, so that the speed of the engine may be controlled according to the load. When the belt 15 breaks or slips from either of its supporting-pulleys, the weighted arm 5 will fall and correspondingly elevate the radius-bar 4, which latter, through the connection 14, will lift the outer end of the lever 12 and proportionately lower the inner end of the lever and thereby move the valve 16 downward and cut off the supply of steam, as will be readily understood.

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

The herein shown and described attachment for a steam-engine governor, comprising a plate having its ends bent at approximately right angles and formed with longitudinal slots, a rod mounted in the bent ends of the plate and having a weighted radius-arm at one end bearing a pulley to travel

upon the governor-belt, and having a radius-
bar at its opposite end to be connected with
the cut-off mechanism of the governor, and
clips or fastenings operating in the slots of
5 the said plate, whereby the attachment can
be applied to different makes and sizes of
governors, substantially as specified.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

FERDENAND S. WILCOX.

Witnesses:

I. B. GORDON,
J. W. COLSON.