

M. T. ANDERSON.  
INTERNAL COMBUSTION ENGINE.  
APPLICATION FILED AUG. 9, 1910.

983,109.

Patented Jan. 31, 1911.

Fig. 1

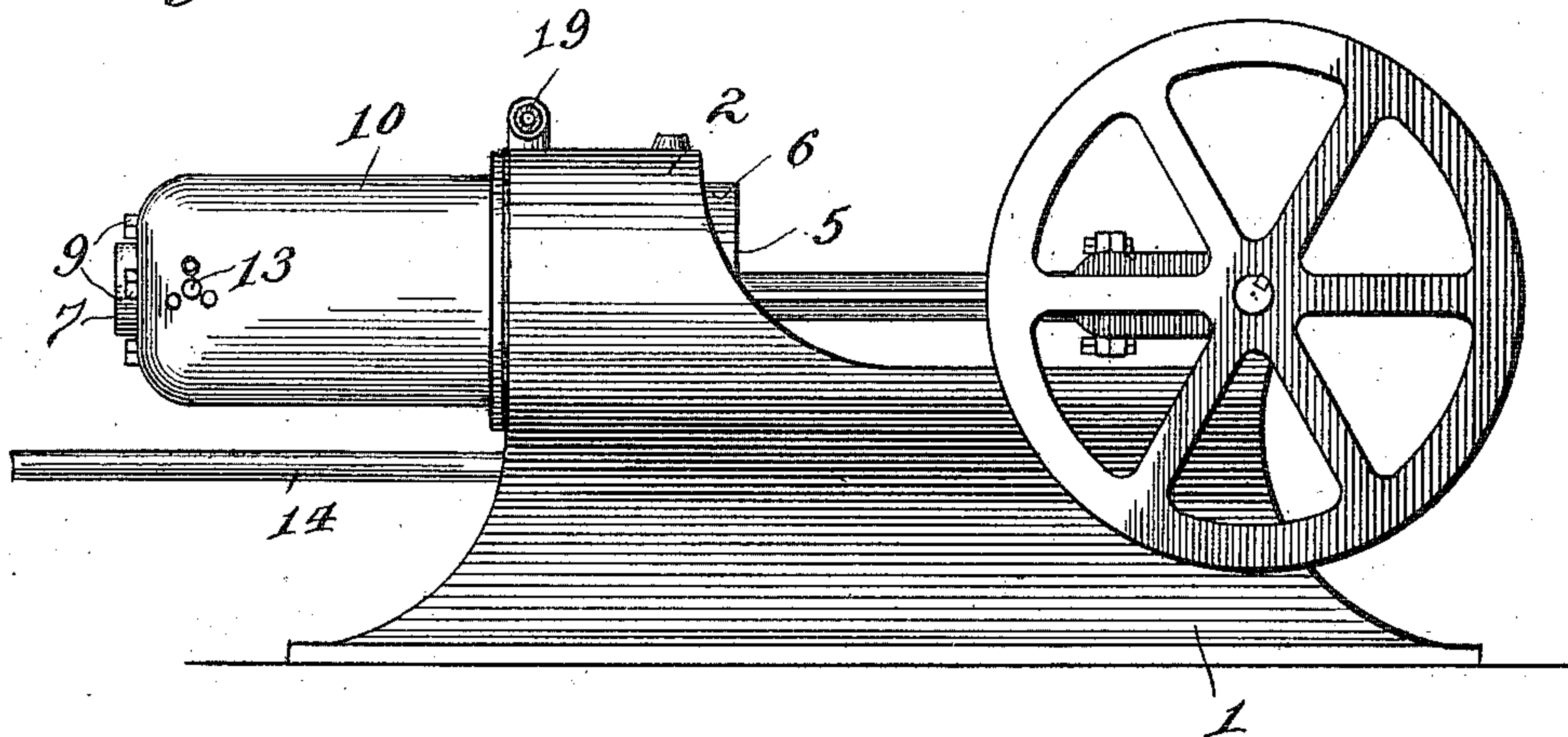


Fig. 2.

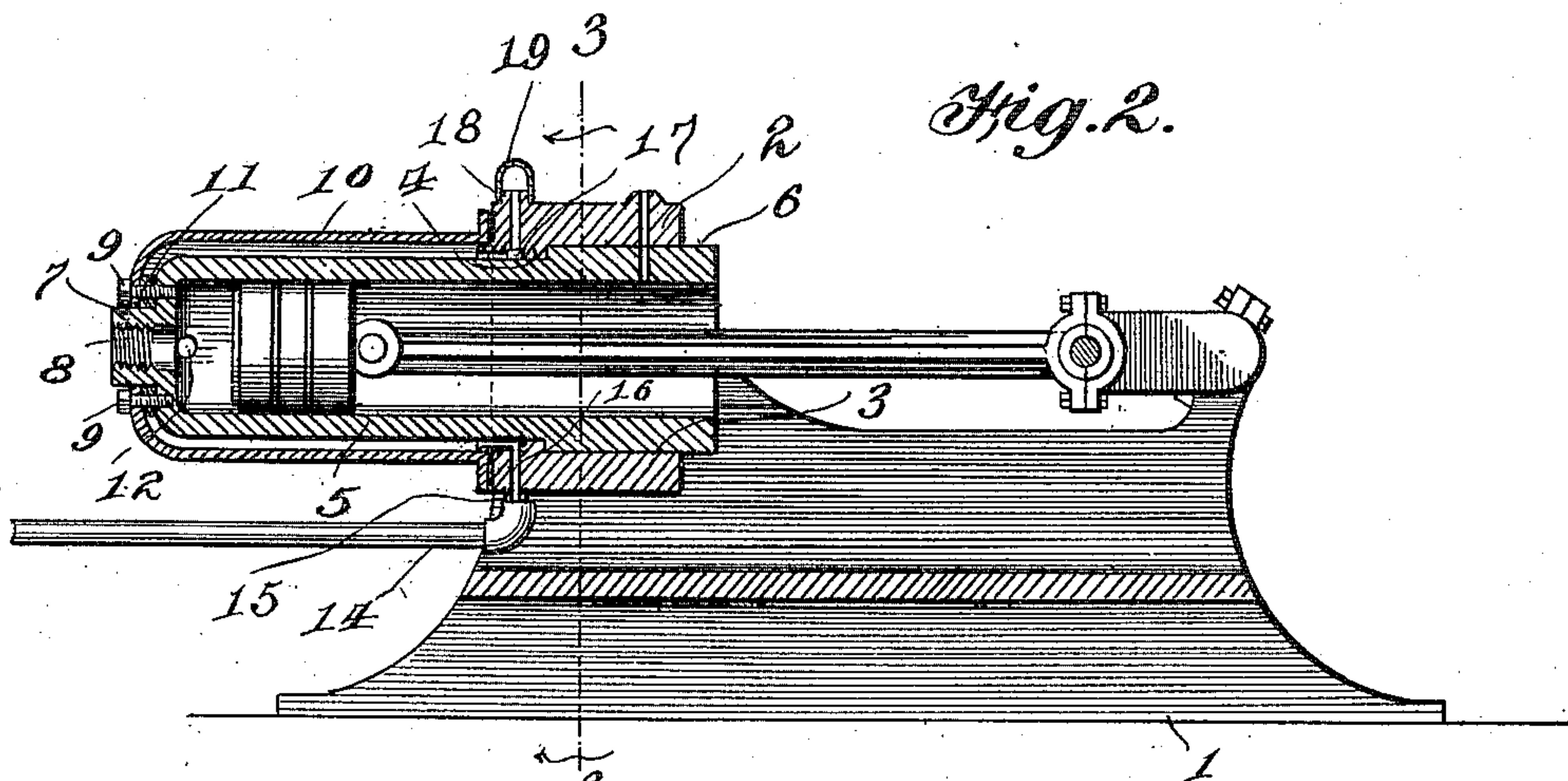
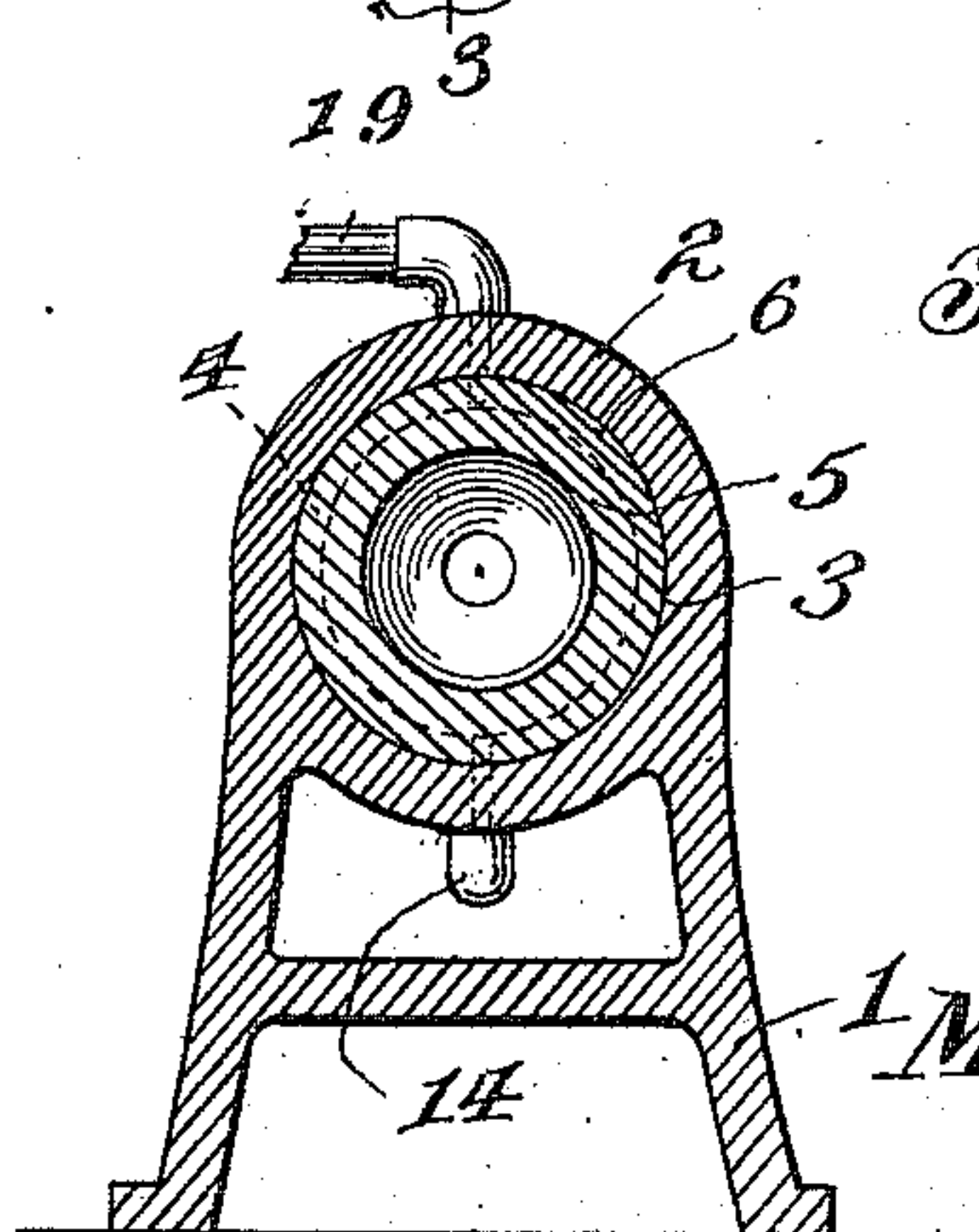


Fig. 3.



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# UNITED STATES PATENT OFFICE.

MARTIN T. ANDERSON, OF LAKELAND, FLORIDA.

INTERNAL-COMBUSTION ENGINE.

983,109.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed August 9, 1910. Serial No. 576,299.

*To all whom it may concern:*

Be it known that I, MARTIN T. ANDERSON, a citizen of the United States, residing at Lakeland, in the county of Polk and State of Florida, have invented new and useful Improvements in Internal-Combustion Engines, of which the following is a specification.

This invention relates to internal combustion engines and the object of the invention is to provide an improved engine bed and means for mounting the cylinder thereon whereby the cylinder together with its water jacket may be readily removed from the bed for any suitable purpose.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:

Figure 1 is a side elevation. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse vertical section on the line 3—3 of Fig. 2.

Referring more particularly to the drawing 1 represents the engine bed which has one portion thereof raised to provide a cylinder supporting standard 2 which is centrally bored as at 3 and provided with an annular rib or shoulder 4. The cylinder is shown at 5 and has an enlarged band 6 surrounding its inner end which engages the shoulder 4 and limits its outward movement. The shoulder 4 also takes up the thrust of the force of the explosion. The outer end of the cylinder is provided with an outwardly projecting collar 7 which is apertured at 8 to permit the passage of the spark plug and has extending at intervals around its circumference the stud bolts 9 which pass through suitable apertures in the outer end of the water jacket 10. This water jacket is apertured as at 11 to permit the passage of the spark plug and has its inner end adapted to engage and abut against the outer face of the mounting standard 2. When the lag screws are tightened up, the cylinder is pulled outwardly so as to bring the band 6 against the shoulder 4 and the casing or water jacket 10 is forced into engagement with the outer face of the standard 2 thereby making a tight joint between these parts and one which may be readily disconnected so as to remove the cylinder from the engine bed. Suitable open-

ings 12 and 13 are provided in the cylinder and jacket respectively for the passage of the valves.

A water feed pipe 14 is connected to a nipple 15 projecting from the outer face of the standard, said nipple leading into a port 16 which communicates at its opposite end with the space between the water jacket and the cylinder. A similar port 17 is formed at the upper end of the standard and communicates with a nipple 18 which is connected to an outlet pipe 19.

Having thus described the invention, what is claimed is—

1. In combination, an engine bed having an aperture therein, a cylinder passed through said aperture, means to limit the movement of the cylinder, a water jacket surrounding said cylinder and engaging said bed, and means connecting the water jacket and cylinder for forcing the water jacket into engagement with the engine bed and for holding the cylinder in engagement with the limiting means.

2. In combination, an engine bed having an aperture therein, an annular collar arranged in said aperture, a cylinder mounted in said aperture and having a band to engage said collar, a water jacket surrounding the cylinder and engaging the engine bed, and bolts for connecting the water jacket and cylinder which force the latter into engagement with the collar and hold the water jacket in engagement with the engine bed.

3. In combination, an engine bed having an aperture therein, an annular collar arranged in said aperture, a cylinder mounted in said aperture and having a band to engage said collar, a water jacket surrounding the cylinder and engaging the engine bed, and bolts for connecting the water jacket and cylinder which force the latter into engagement with the collar and hold the water jacket in engagement with the engine bed, together with inlet and outlet ports formed in the engine bed and communicating with the space between the water jacket and cylinder.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN T. ANDERSON.

Witnesses:

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