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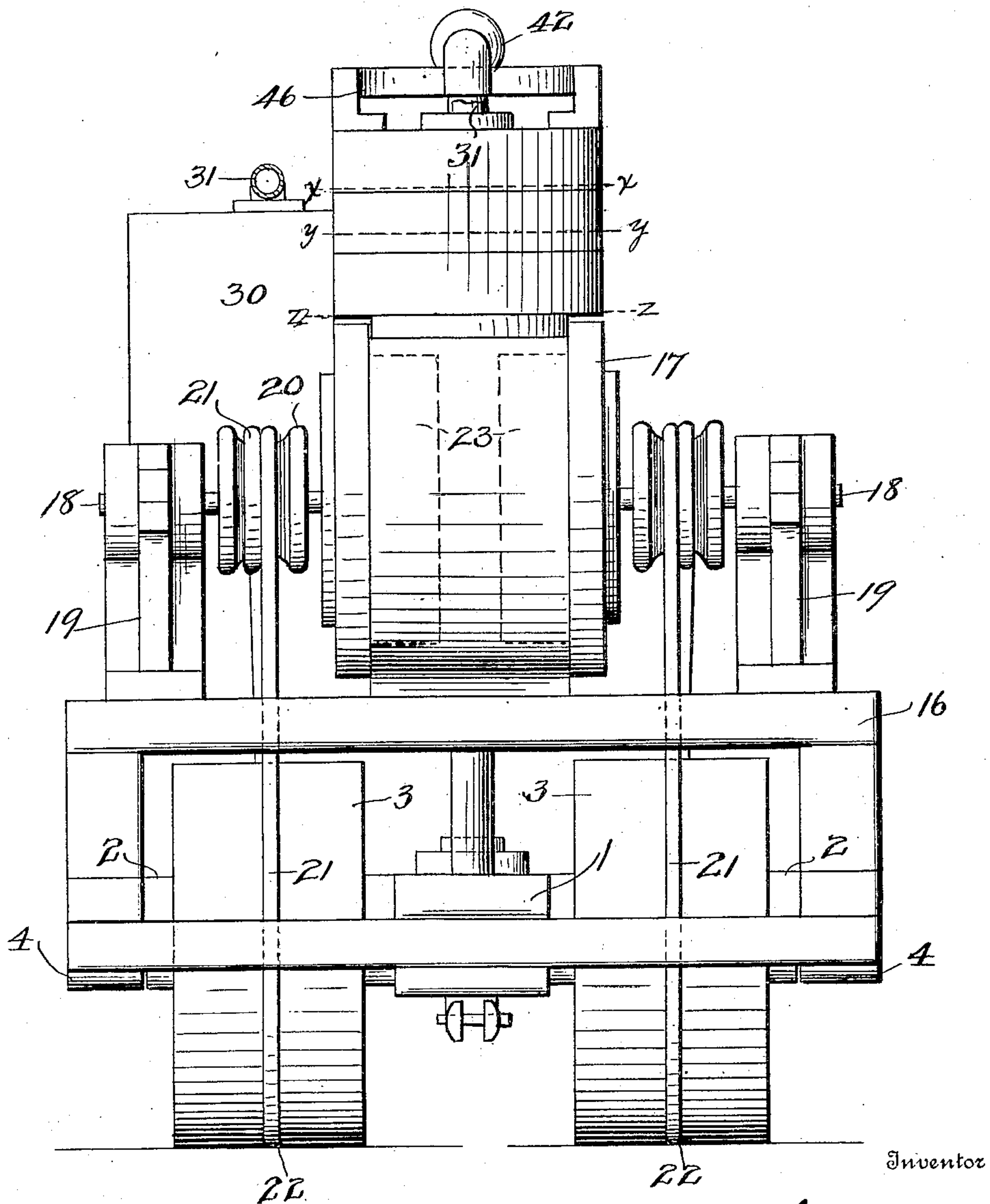
PATENTED MAY 19, 1908.

J. SCIPE.  
ROTARY ENGINE.

APPLICATION FILED JUNE 26, 1906.

2 SHEETS—SHEET 1.

*Fig. 1.*



Witnesses

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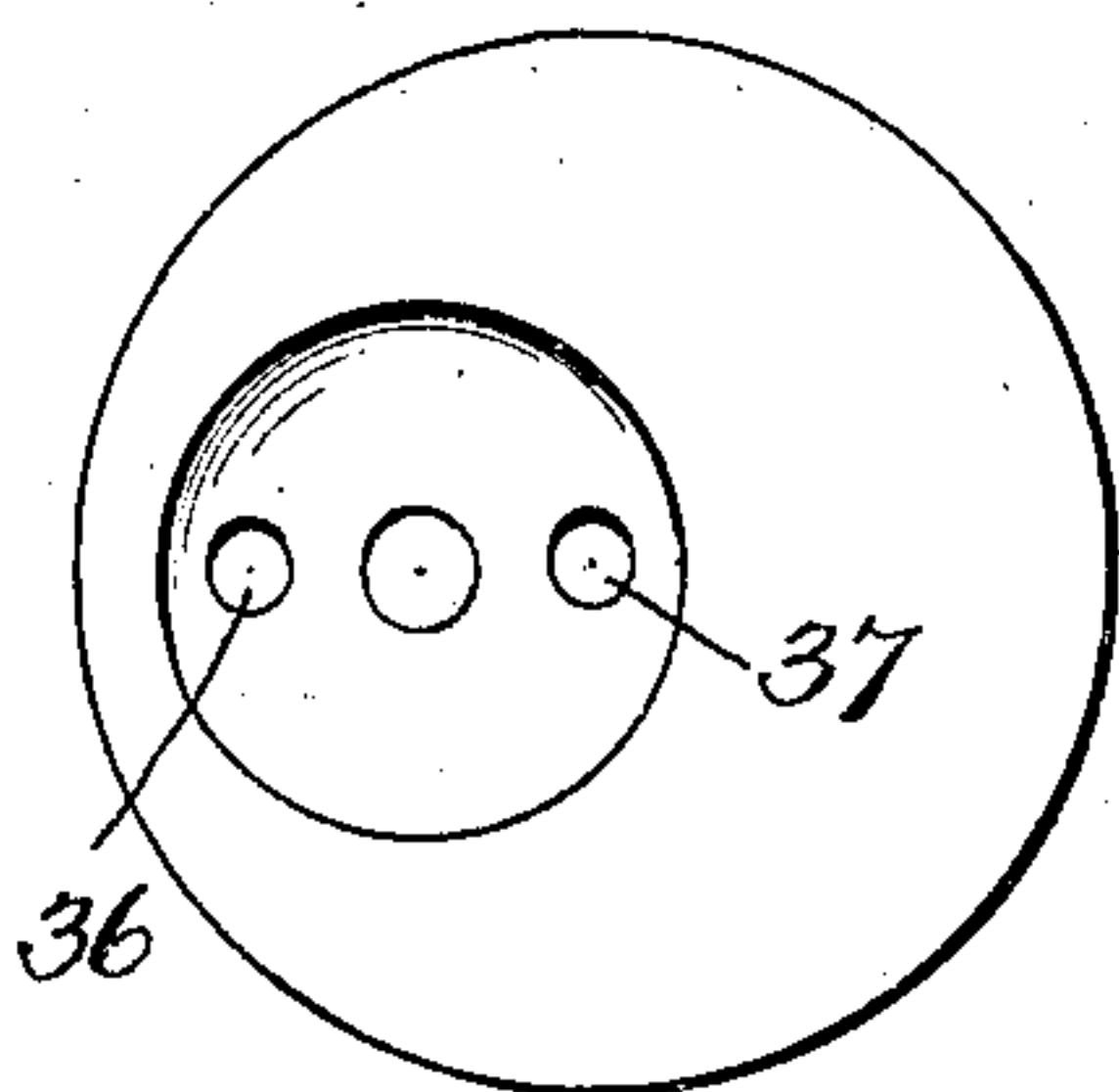
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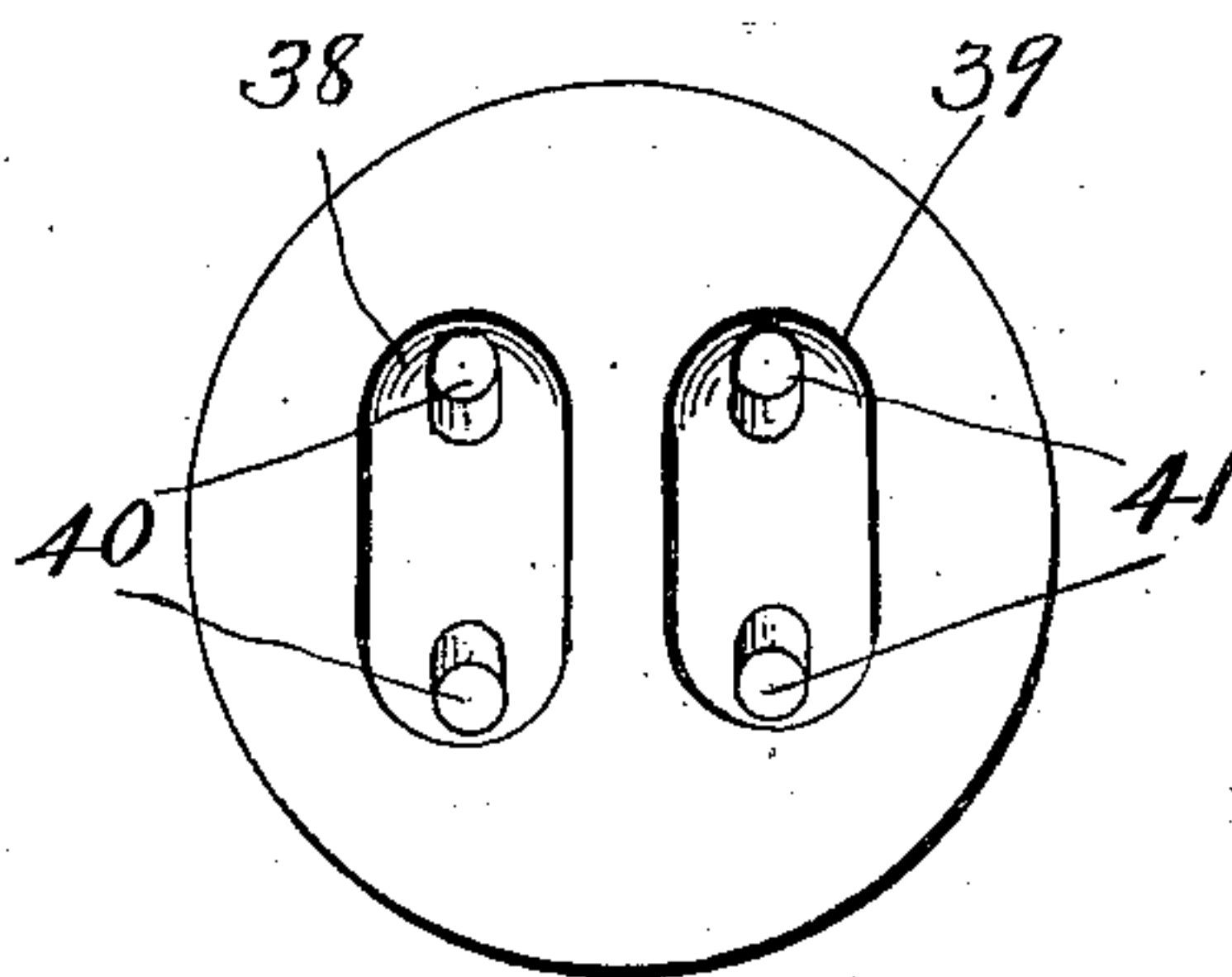
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2 SHEETS—SHEET 2.

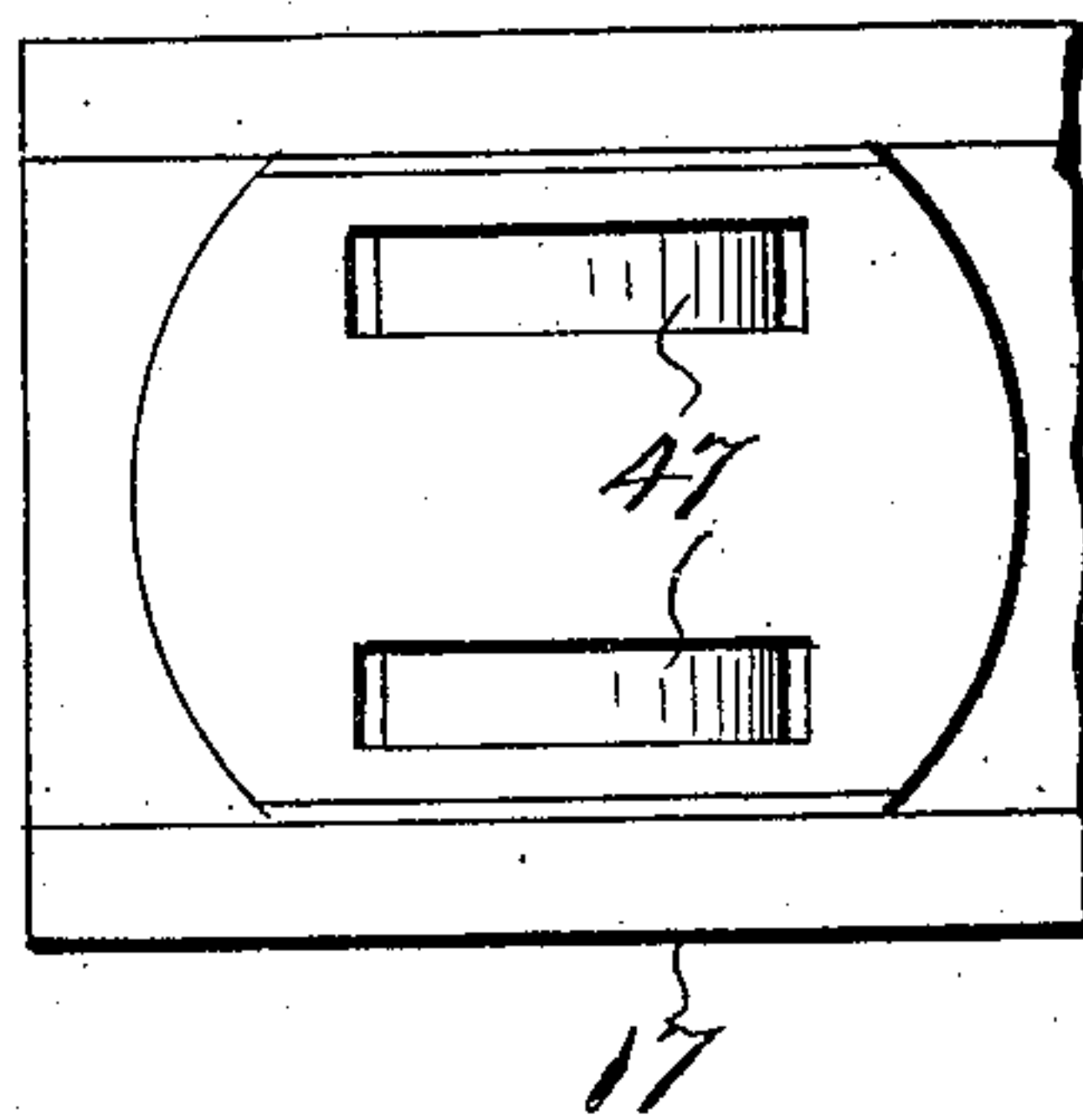
*Fig. 3.*



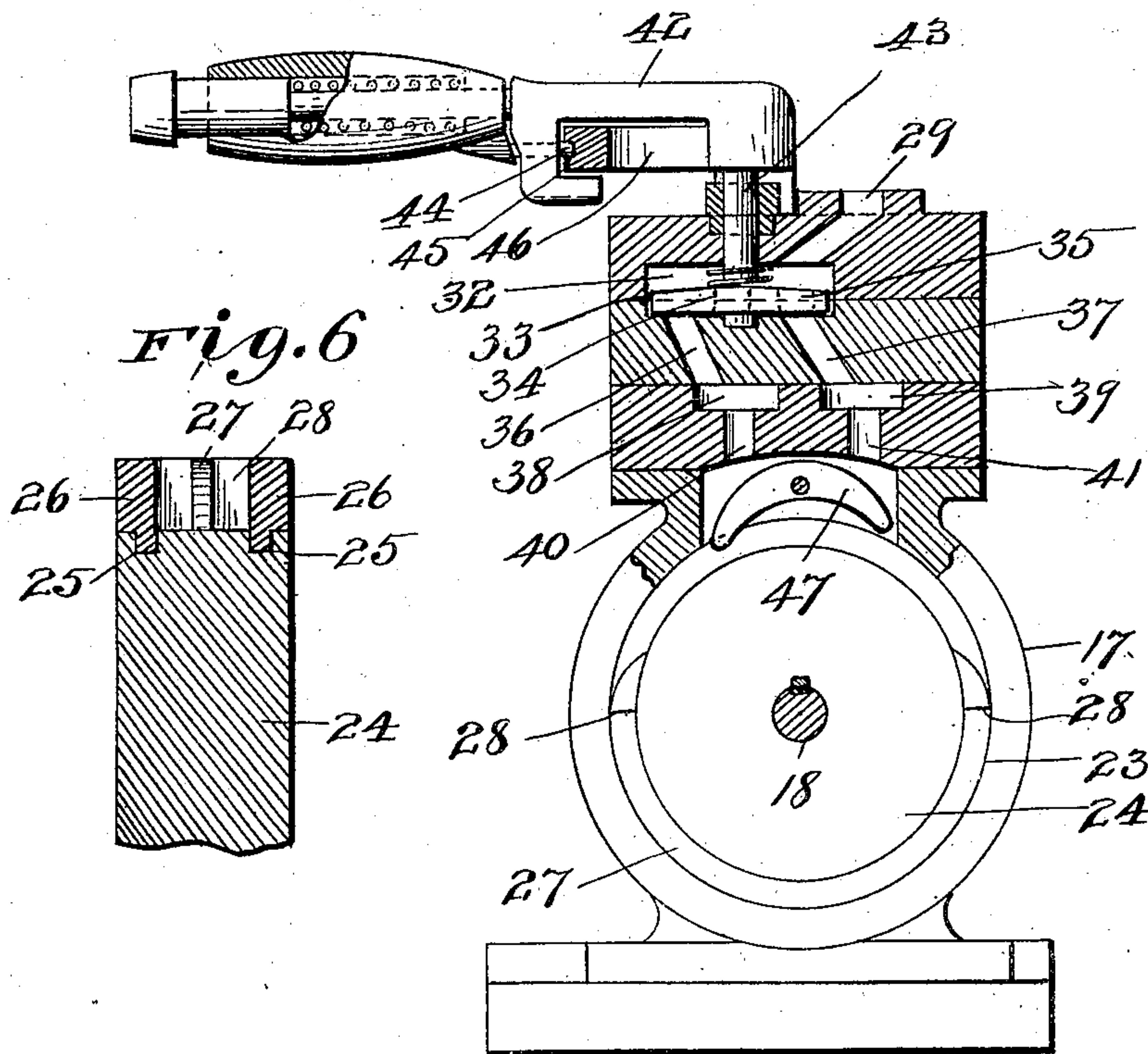
*Fig. 4.*



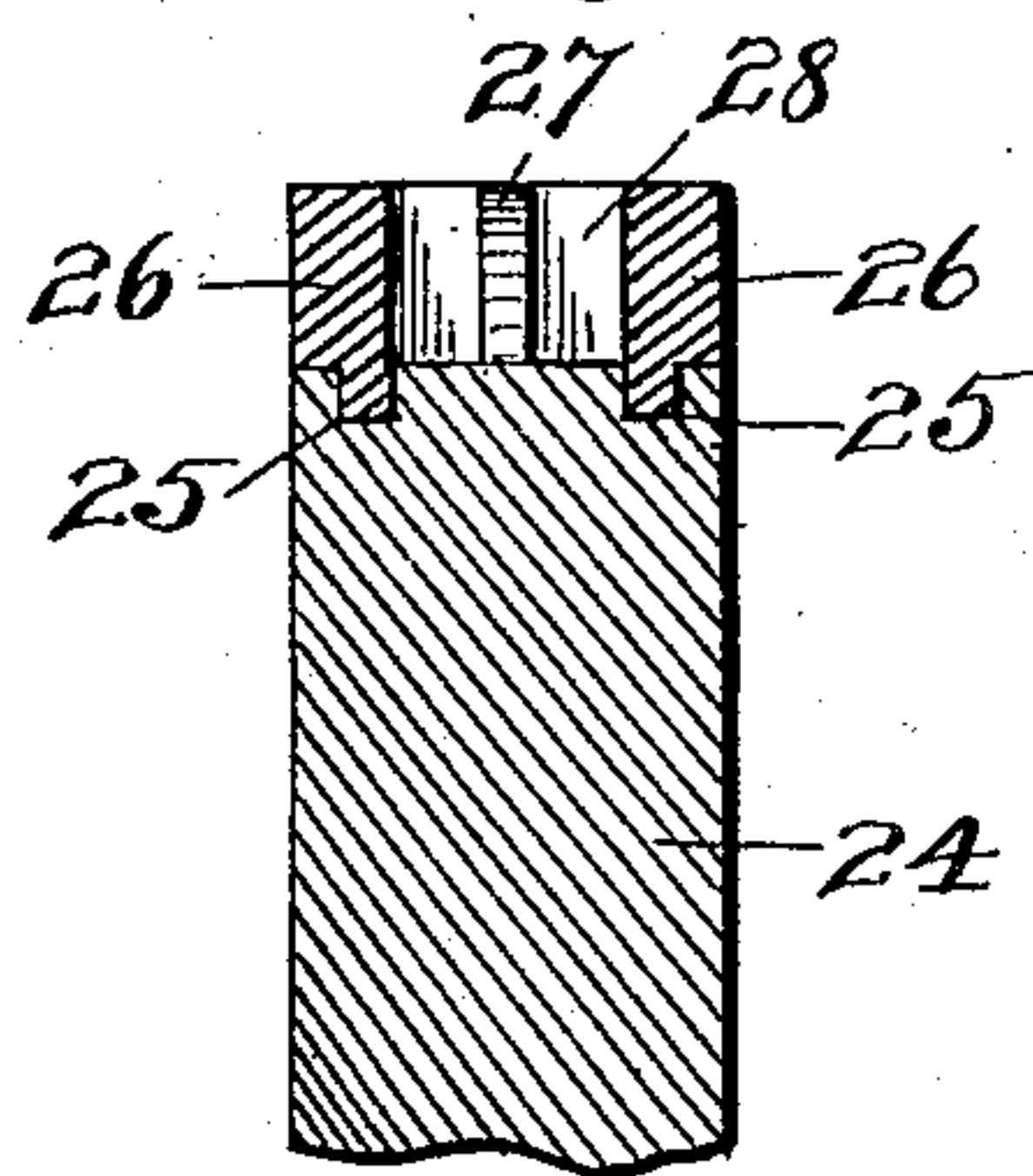
*Fig. 5.*



*Fig. 2.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

JOHN SCIPE, OF DUNN TOWNSHIP, OTTERTAIL COUNTY, MINNESOTA.

## ROTARY ENGINE.

No. 888,043.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed June 26, 1906. Serial No. 323,511.

*To all whom it may concern:*

Be it known that I, JOHN SCIPE, a citizen of the United States, residing at Dunn township, in the county of Ottertail and State of Minnesota, have invented certain new and useful Improvements in Rotary-Engines, of which the following is a specification.

My invention relates to traction engines especially adapted for use on farms for propelling plows, cultivators, etc., and has for its object the provision of an engine of the type stated in which the drive shaft is secured directly to the pistons of a rotary steam engine, said engine and valve gear thereon being of novel construction.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1, is a view of a farm engine with my improved rotary engine mounted thereon, Fig. 2, a vertical sectional view of the rotary engine, Fig. 3, a horizontal sectional view on the line  $x-x$  of Fig. 1. Fig. 4, a similar view on the line  $y-y$  of Fig. 1, Fig. 5, a similar view on the line  $z-z$  of Fig. 1, and Fig. 6, a fragmental sectional view of one of the engine pistons.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

1 indicates the platform of my improved engine having the rear portion cut away as shown at 2 for the drive wheels 3 journaled in boxes 4 secured under the platform.

16 represents a platform at the rear of the engine, over drive wheels 3, on which is mounted the motor 17 for driving shaft 18 journaled in boxes 19.

Pulleys 20 are keyed on shaft 18 and 21 indicate drive cables geared to said pulleys and in circumferential grooves 22 in drive wheels 3. It will be obvious that instead of cables 21 chains or other flexible elements may be substituted as desired, it being considered unnecessary to illustrate such obvious changes.

The motor 17 is of the rotary steam engine type and consists of twin cylinders 23 in each of which are rotatably mounted pistons 24 keyed to shaft 18. Pistons 24 are each formed with circumferential grooves 25 adjacent to each edge in which fit packing rings 26 while 27 indicates a projection extending half-way around the piston between the packing rings 26 the ends thereof forming the

heads 28 against which the steam acts when the motor is in operation.

29 indicates the inlet port for the admission of steam to the cylinders 23, the steam being supplied by a suitable boiler 30 secured on platform 1 and connected with the port 29 by means of pipe 31. Port 29 connects with valve chamber 32 in which is rotatably mounted disk 33 having holes 34 and 35 therein adapted to register with ports 36 and 37 in the bottom of chamber 32. Ports 36 and 37 communicate with chambers 38 and 39 respectively from which chambers extend ports 40 and 41 which open into cylinders 23, the ports 36 and 40 and chamber 38 being utilized when the machine is driven in a forward direction, while ports 37 and 41 and chamber 39 are utilized when it is desired to back the machine.

It will be understood that the course of the steam to the cylinders 23 is controlled by the position of disks 33. When the hole 34 therein registers with port 36 the steam is admitted to drive the machine forwardly while when hole 35 registers with port 37 the machine is backed. When the disk is turned so that neither of the holes therein register with one of the ports the steam is cut off from the cylinders entirely. The position of disk 33 is controlled by lever arm 42 secured to stem 43 on said disk, said lever having slidably mounted thereon a spring-actuated catch 44 which engages notches 45 in segmental rack 46.

47 represents pivoted steam guides having their ends opposite the delivery ends of ports 40 and 41 which swing against the pistons 24 under the impulse of the steam to direct the steam against the heads 28 to cause the pistons to rotate in the direction desired.

48 represents clips secured to platform 16 by means of bolts 49 secured in slots 50 therein and having rollers or pulleys 51 journaled therein that engage cables 21 and act as tighteners to hold said cables to their work.

Having thus described my invention what I claim is—

A rotary steam engine comprising a casing having two cylinders, a rotatable piston in each cylinder, each of said pistons having a projection thereon extending half way around the piston and forming propelling heads at each end, a valve mechanism for controlling the passage to said chambers having an inlet port opening to the chamber

a disk rotatably mounted in the bottom of  
said chamber and having steam passages  
therethrough, outlet ports in the bottom of  
the chamber adapted to register with the  
5 steam passages in the disk, other chambers  
in communication with said outlet ports,  
steam ways for conveying the steam from  
the last named chambers to the engine cyl-  
inders, and steam guides pivotally secured to

the engine casing to direct the steam from 10  
the valve mechanism aforesaid against the  
propeller heads above set forth.

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

JOHN SCIPE.

Witnesses:

B. PHILLIPS

GUY A. PHILLIPS.