L. COATALEN.

VALVE GEAR.

APPLICATION FILED NOV. 20, 1917.

1,306,949.

Patented June 17, 1919.

Fig. 2.

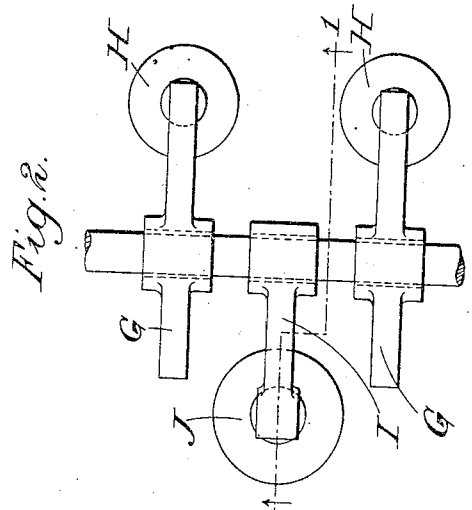
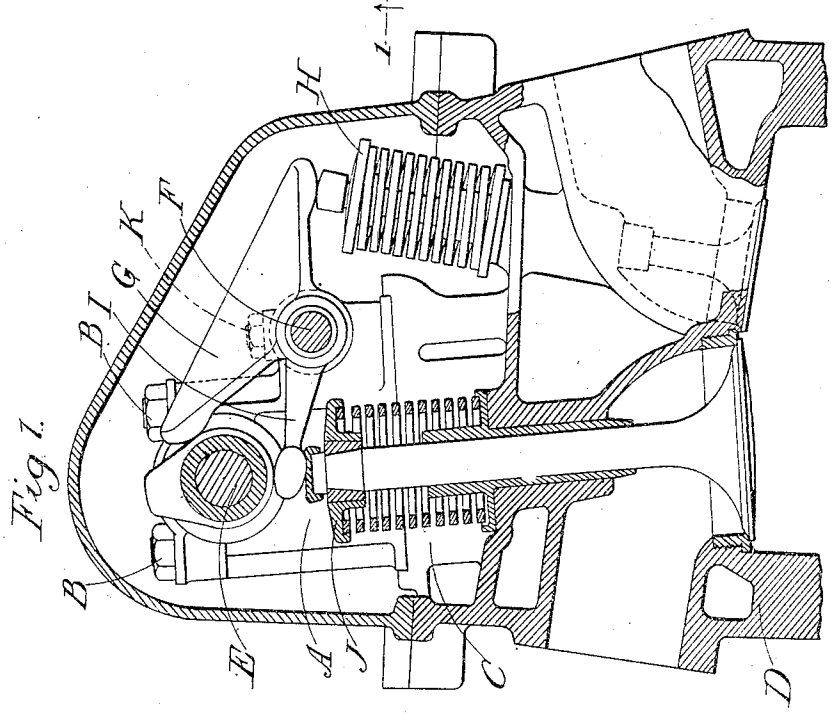


Fig. 1.



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UNITED STATES PATENT OFFICE.

LOUIS COATALEN, OF WOLVERHAMPTON, ENGLAND, ASSIGNOR OF ONE-HALF TO SUNBEAM MOTOR CAR COMPANY LIMITED, OF WOLVERHAMPTON, ENGLAND.

VALVE-GEAR.

1,306,949. Specification of Letters Patent. Patented June 17, 1919.

Application filed November 20, 1917. Serial No. 203,033.

To all whom it may concern:

Be it known that I, LOUIS COATALEN, a subject of the King of England, residing at Wolverhampton, in Staffordshire, England, have invented certain new and useful Improvements in Valve-Gears, of which the following is a specification.

This invention has for its object to provide a simple and light mechanism for operating valves carried in the head of the cylinders.

According to this invention, brackets are provided which are adapted to be connected to the head of the cylinder and can carry the cam shaft and valve-rocker spindle. Thus the cam shaft, brackets and the spindle with the rockers can be assembled and then be fitted and removed as a unit.

Referring to the accompanying drawing:—

Figure 1 is a partial section through the cam shaft and valve-rocker spindle on the line 1—1 in Fig. 2, and

Fig. 2 is a plan of the valve-rocker spindle with three rockers.

A is one of a pair of brackets—preferably of aluminium—connected by two studs B to a seating C on the cylinder D. The pair of brackets are placed one on each side of the cylinder head and support a cam shaft E and valve-rocker spindle F. The valve-rocker spindle carries two rockers G to operate exhaust valves H, and one rocker I to operate the inlet valve J; the three rockers being rocked respectively by three cams on the cam shaft E. In order to hold the bracket securely to the cylinder, a third stud K passes through the extension of the bracket which carries the valve-rocker spindle, and it also passes through the spindle itself.

The spindle and cam shaft may be hollow and be coupled together so that oil may be supplied to the interior to lubricate the rockers and wherever desired.

What I claim as my invention and desire to secure by Letters Patent is:—

In a valve gear having one inlet and two exhaust valves the combination of a cylinder head, brackets connected thereto having a main portion and an extension of less height than the main portion, a cam shaft mounted in the main portion of the brackets, a rocker spindle mounted in the extension of the brackets, bolts for holding the main portion to the cylinder head, bolts for holding the rocker spindle fixed in the extension, said bolts also serving to hold the brackets to the cylinder head, two rockers mounted on the rocker spindle to operate the exhaust valves and one rocker mounted on the rocker spindle to operate the inlet valve, said last mentioned rocker being arranged in a different angular position from the exhaust valve rockers and extending to a point between the cam shaft and said inlet valve, the exhaust valve rockers extending at an inclination and terminating alongside the cam shaft and cams on the cam shaft for operating the rockers, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS COATALEN.

Witnesses:
W. W. ILIFF,
C. M. JONES.