

G. ENRICO.
COMBUSTION MOTOR.
APPLICATION FILED MAR. 13, 1906.

930,056.

Patented Aug. 3, 1909.

Fig. 1

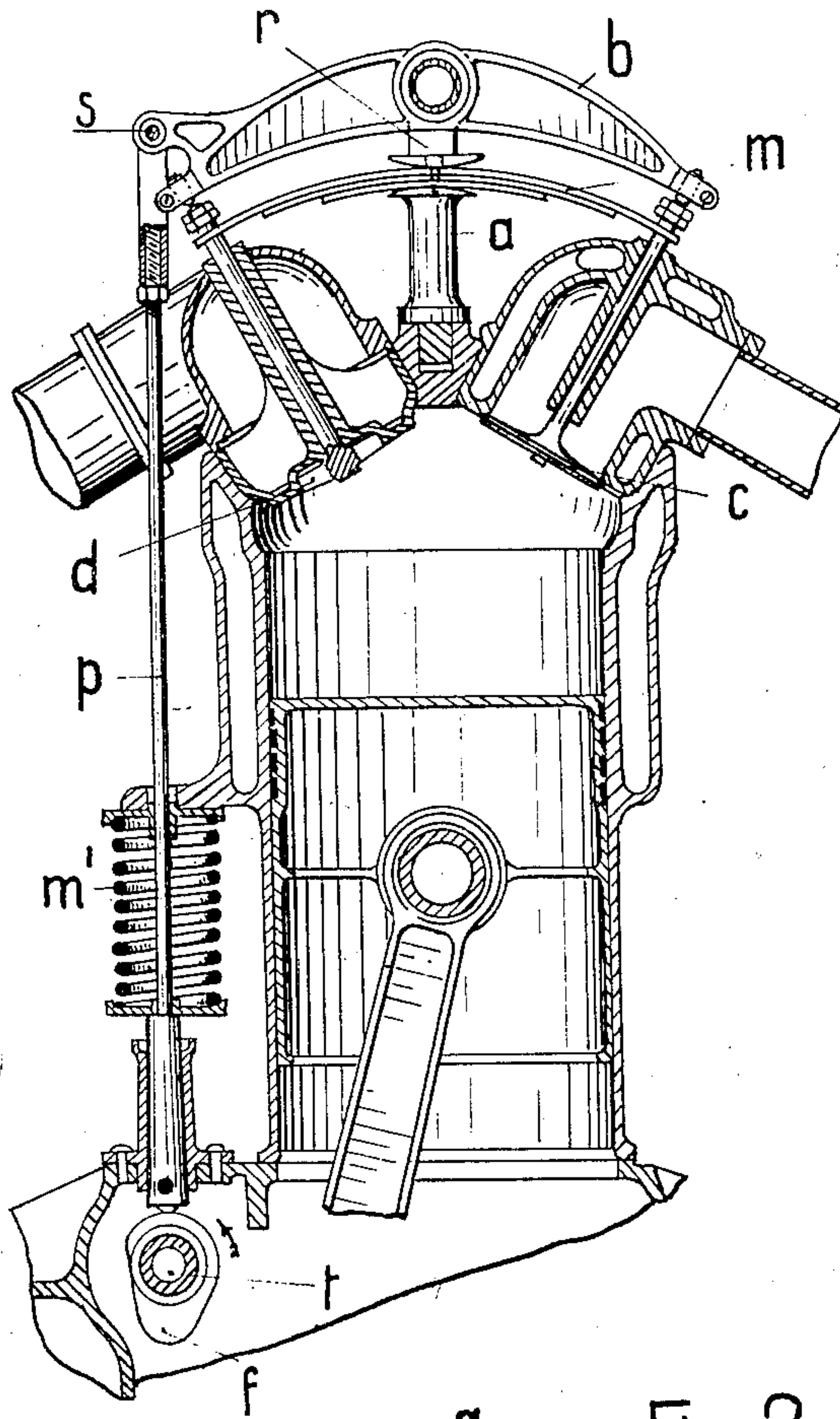
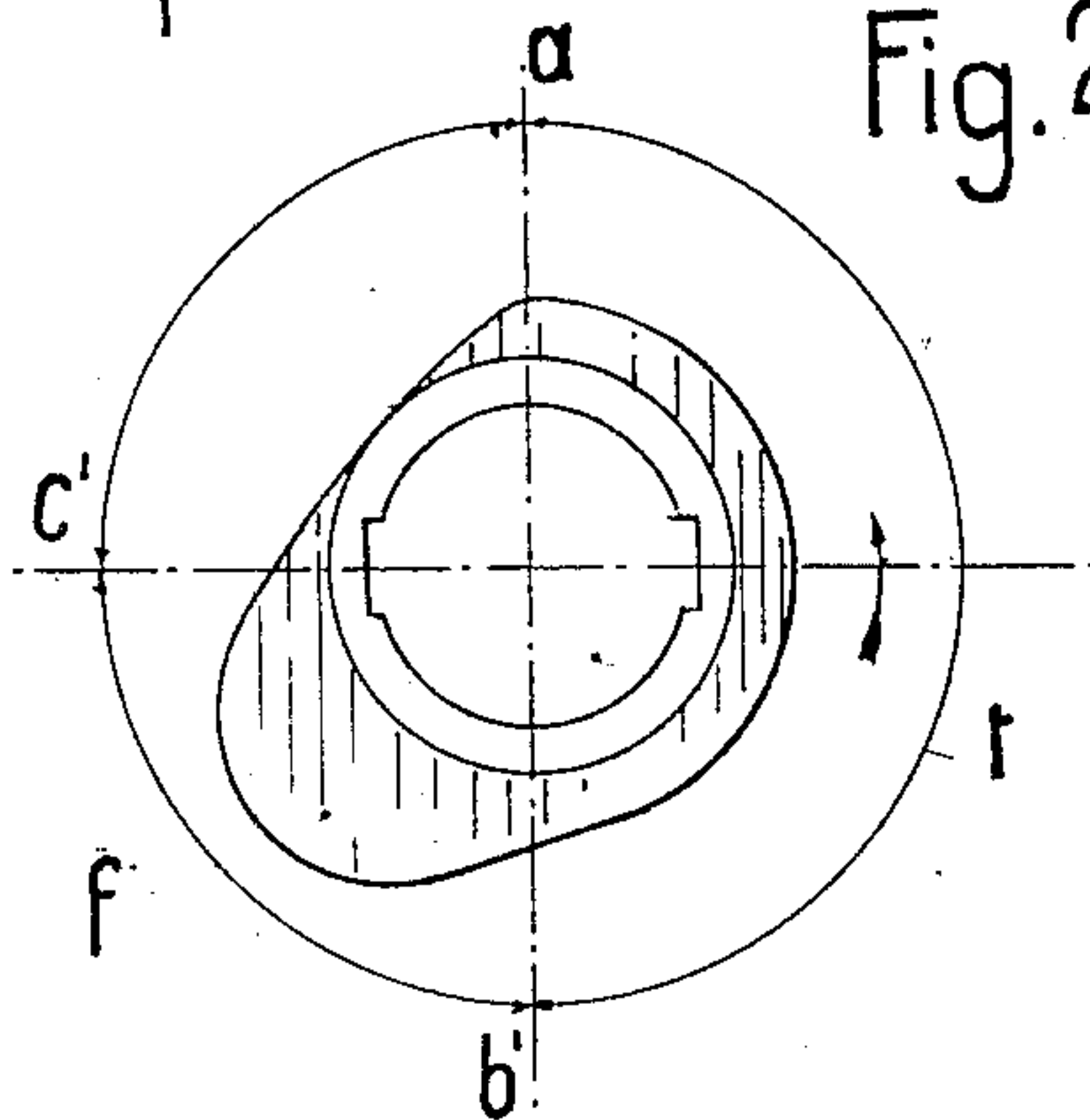


Fig. 2



WITNESSES:

Ired White
Renett Ruine

INVENTOR:

Giovanni Enrico

By Attorneys,

Arthur C. Hasselbina

UNITED STATES PATENT OFFICE.

GIOVANNI ENRICO, OF TURIN, ITALY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO F. I. A. T. FABBRICA ITALIANA AUTOMOBILI TORINO, OF TURIN, ITALY, A CORPORATION OF ITALY.

COMBUSTION-MOTOR

No. 930,056.

Specification of Letters Patent.

Patented Aug. 3, 1907

Application filed March 13, 1906. Serial No. 305,814.

To all whom it may concern:

Be it known that I, GIOVANNI ENRICO, engineer, a subject of the King of Italy, residing at Corso Dante 35-37, Turin, Italy, have invented certain new and useful Improvements in Combustion-Motors, of which the following is a full, clear, and exact specification.

The objects of the present invention are for commanding the admission and discharge of gases in combustion motors in a simple and efficient manner.

The invention is illustrated in the annexed drawings wherein—

Figure 1 shows a longitudinal section of an ordinary motor embodying the features of the invention and Fig. 2 shows the same on an enlarged scale.

d, c , are the admission and discharge valves respectively located at the top of the cylinder, and bearing against their seats by the action of a bow spring m fixed to column a carried by the cylinder. Upon the standard r fixed to the cylinder is pivoted an oscillating beam b whose ends are flush with the heads c, d , so that the latter bear against their seats when the oscillating beam is in its middle position.

To one end of the oscillating beam b is pivotally connected a stem p guided in corresponding holes and acted upon by a spring m' so that its lower end is pressed to bear against the profile of a cam f . The cam f carried by the revolving stem p , has a profile designed in such a manner that during the compression and combustion period the stem p bears against a segment of a circle $a' b'$ so that the oscillating beam can rest in its middle position. During the period of discharge $b' c'$ the cam shows a rise or a profile of a larger radius so as to push the stem p causing an oscillation of the oscillating beam b so as to

open the discharge valve c . During the period of introduction or aspiration a fall, or a segment of a smaller radius c', a' comes in contact with the stem p and, under the action of spring m' which is stronger than the spring m , the stem p causes the oscillating beam b to oscillate toward the stem of the aspiration valve d which leaves its seat and allows the gases to be admitted. It will thus be seen in the construction shown that the cam has an intermediate face or dwell, a rise adapted to operate one valve, and a fall adapted to operate the other valve, and that a single rod p transmits these movements to both valves.

While I have shown and described one construction of my invention, I do not wish to be limited thereto since the construction may be considerably modified without departing from the invention.

What I claim is:

1. In a combustion motor, an admission valve, a discharge valve, a bow spring tending to seat both said valves, an oscillating beam adapted to bear against the stems of said valves, and a single cam for operating said beam.

2. In a combustion motor, an admission valve, a discharge valve, a bow spring m for said valves, an oscillating beam b adapted to bear against the stems of said valves, a cam f operating said beam through a rod p , and a spring m' of greater strength than spring m for moving said rod p .

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

GIOVANNI ENRICO.

Witnesses:

MARIO CAPUCCIO,
GOTTARDO C. PIRONI.