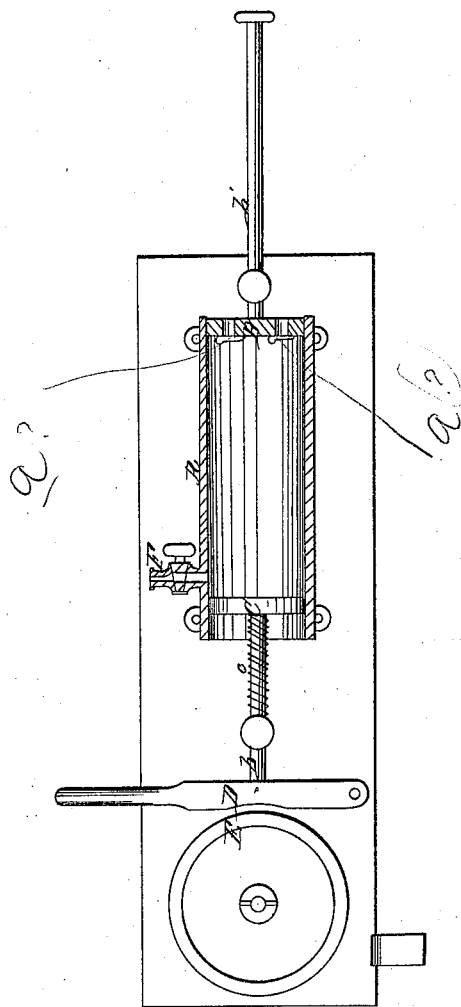


B. Mackerly
Governor.

Nº 55,134.

Patented May 29, 1866.



Witnesses.

J. B. Clington
Wm. Brown

Inventor.

B. Mackerly
Per Munnell
Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN MACKERLEY, OF PAINT, OHIO.

IMPROVEMENT IN ATMOSPHERIC GOVERNORS.

Specification forming part of Letters Patent No. 55,134, dated May 29, 1866.

To all whom it may concern:

Be it known that I, BENJAMIN MACKERLEY, of Paint, in the county of Highland and State of Ohio, have invented a new and Improved Atmospheric Governor; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The drawing represents a longitudinal central section of this invention.

This invention relates to a governor in which by the compression of the atmospheric air in a cylinder or suitable receiver a brake is applied, and by these means the speed of a motor of any desired description, but particularly such driven by animal power, can be regulated with the greatest ease and accuracy.

A represents a cylinder, which is bored out to receive two pistons, B C. The piston B is the pump-piston, and it connects with some part of the motor in such a manner that a reciprocating motion is imparted to it. It is provided with one or more air-valves, *a*, which open inward, so that the same on the back stroke of the piston admits air into the cylinder, and on the forward stroke said air is prevented to escape.

The piston C connects by its rod *b* with a brake, D, which stands in close proximity to the pulley E, mounted on the shaft, by which

the power of the motor is transmitted to the working machines. A suitable spring, *c*, has a tendency to force the piston C back to such a position that the brake D does not come in contact with the pulley E.

F is an air-cock, by which the effect of the governor can be regulated. If this air-cock is open, or partly open, and the piston B moves slowly, the air compressed by the same in the cylinder A has time to escape through the air-cock F, and the piston C remains stationary; but if the speed of the piston B increases, or if the air-cock is nearly or entirely closed, the air compressed in the cylinder A forces the piston C out against the power of the spring *c*, and the brake is applied. As soon as the speed of the piston B decreases the spring *c* forces the piston C back to its original position and the brake is taken off.

It is obvious that instead of the spring *c* a weight might be used to carry the piston C back.

What I claim as new, and desire to secure by Letters Patent, is—

An atmospheric governor composed of a cylinder, A, with two pistons, B C, and brake D, arranged substantially as and for the purpose described.

BENJAMIN MACKERLEY.

Witnesses:

H. W. HARVEY,
F. C. HIXSON.