

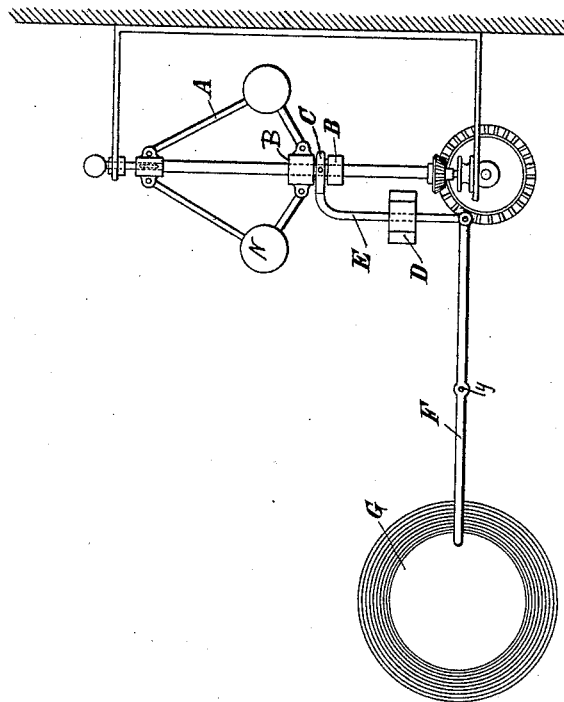
(No Model.)

E. LACHMANN.

RECORDER OF SPEED OF GOVERNORS OF MOTIVE POWER ENGINES.

No. 526,321.

Patented Sept. 18, 1894.



Attest  
F. L. Maddison

Inventor  
Emil Lachmann  
by Miss Spear  
ATTY.

# UNITED STATES PATENT OFFICE.

EMIL LACHMANN, OF BERLIN, GERMANY.

RECORDER OF SPEED OF GOVERNORS OF MOTIVE-POWER ENGINES.

SPECIFICATION forming part of Letters Patent No. 526,321, dated September 18, 1894.

Application filed January 31, 1894. Serial No. 498,650. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL LACHMANN, of 19 Kaiser-Wilhelmstrasse, Berlin, in the Kingdom of Prussia, German Empire, have invented a new and useful Apparatus for Recording the Speed of Governors of Motive-Power Engines, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a speed recording apparatus which graphically records all the positions of the governor during a determined period of time. The said apparatus is shown in elevation in the accompanying drawing.

15 A rod E (guided in a ring or guideway D parallel to the axis of the governor) engages by means of a fork C in the collar formed in the sleeve B to which the governor balls X carried on the arms A (of any motive power 20 engine thus governed) are attached so that the upward or downward movement of the sleeve B caused by the action of said governor balls X is thereby imparted to the fork C and rod E carrying same. The other end of the 25 rod E operates one end of a lever F which is mounted to turn on a fixed pin *y* and is arranged at right angles to the vertical axis of the governor balls. The other end of the lever F carries a pencil which works on a disk 30 G which is provided with paper and is divided to a scale and is kept in rotary motion (at any desired speed) by means of clockwork. The lever F for the end thereof carrying the pencil will assume various positions relatively to the 35 center or to the circumference of the disk G according as the movable sleeve B of the gov-

ernor is moved into its various positions up or down with the result that the continued motion or shifting of the governor will cause the pencil to draw a curve corresponding to 40 the position of the arms A and thereby indicate the speed of the governor. From this curved or other line thus drawn on the disk G all variations in the speed of said governor can be seen and can be readily computed by 45 the proper mathematical methods and calculations.

By the term "pencil" I wish it to be understood that I mean and intend thereby to refer to any suitable marking instrument or 50 appliance capable of being used to delineate the desired record on the disk G.

What I claim, and desire to secure by Letters Patent of the United States is—

In combination, the governor with its shaft, 55 the sliding sleeve B on said shaft, the rotary disk G having a scale on its face, the pivoted lever F having its free end movable over the face of the disk, the connection between the pivoted lever F and the sliding sleeve comprising the sliding bar extending parallel 60 with the governor shaft and having a laterally bent forked end engaging the sliding sleeve B and the guide D through which the said bar E slides, substantially as described. 65

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EMIL LACHMANN.

Witnesses:

PAUL FISCHER,  
HANS BAUERLEIN.