

(No Model.)

A. BÄCK.

GOVERNOR FOR STEAM ENGINES.

No. 261,980.

Patented Aug. 1, 1882.

Fig. 1.

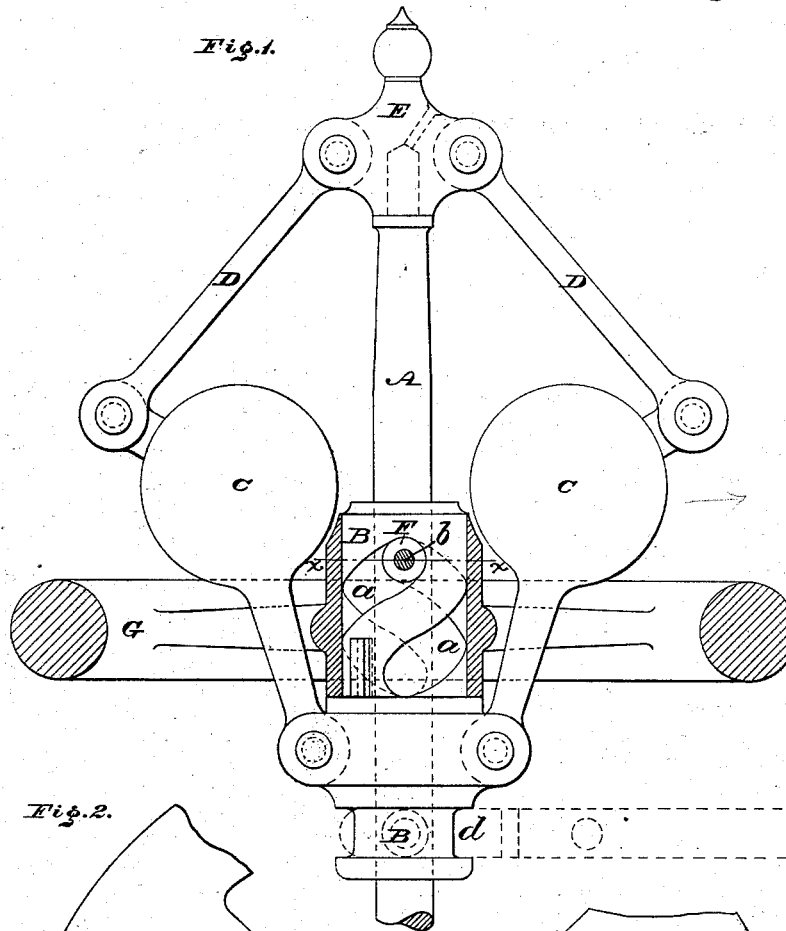
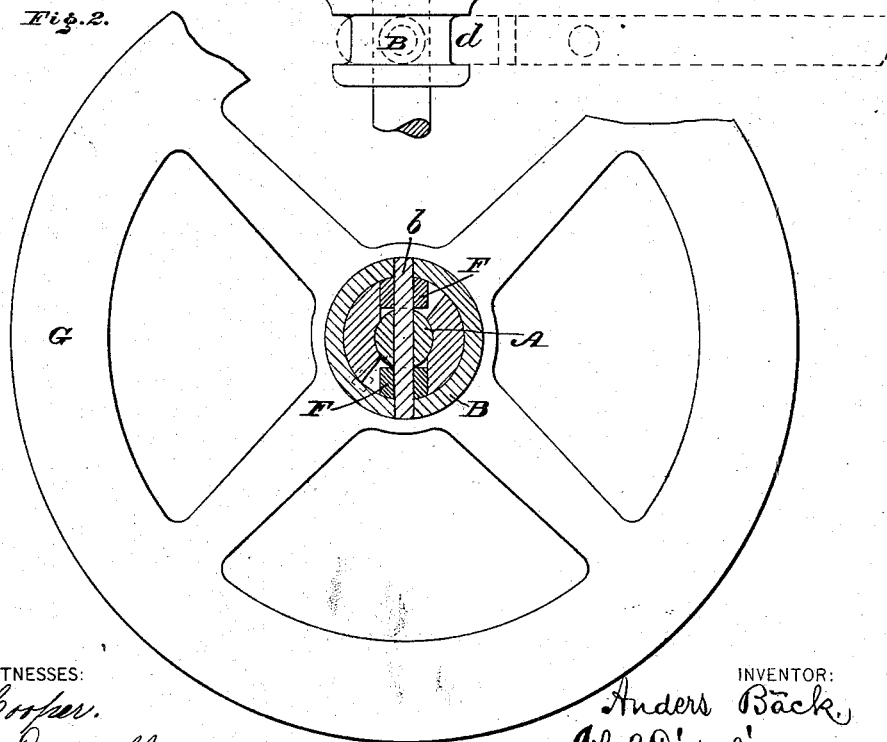


Fig. 2.



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GOVERNOR FOR STEAM-ENGINES.

SPECIFICATION forming part of Letters Patent No. 261,980, dated August 1, 1882.

Application filed October 6, 1881. (No model.) Patented in Sweden March 5, 1880.

To all whom it may concern:

Be it known that I, ANDERS BÄCK, a citizen of Sweden, residing at Korsnäs, in Great Kopparberg, Sweden, have invented a new and useful Improvement in Governors for Steam-Engines, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation, partly sectional, of the governor embodying my invention. Fig. 2 is a horizontal section in line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a governor which works with uniformity and sensitiveness, the construction and operation being hereinafter fully set forth.

Referring to the drawings, A represents a vertical shaft, which is suitably mounted or supported and connected to a proper part of the engine, so as to be rotated thereby.

B represents a sleeve, which is loosely fitted on the shaft A, and has pivoted to it the arms of the pendulum-balls C C, said arms extending vertically, and having the balls C on the upper ends.

To the balls C are pivoted the lower ends of arms D, whose upper ends are pivoted to a cap, E, which latter is supported freely on the top of the shaft A, so that the arms D, pendulum-balls C, and sleeve B are suspended from said cap E.

The wall of the upper part of the sleeve B has formed in it spiral ways *a a*, and the shaft A has secured to it a pin or pins, *b*, on which are mounted rollers F, which are so located that they project into said ways *a a*.

Keyed or otherwise firmly secured to the periphery of the sleeve B is a balance-wheel or weighted arms, G, said wheel, in the present case, being secured to the upper part of the collar, above the place of connection of the pendulum-balls with said sleeve, the spokes of the wheel not interfering with the freedom

of motion of said balls. The sleeve is also formed with a neck, *d*, with which engages the lever of the governor-valve.

It will be seen that the outward movement of the governor-balls raises the sleeve B, and as the latter rotates the walls of the spiral ways *a* ride up the rollers F, thus assisting the elevation of the sleeve, the balance-wheel, furthermore, assisting rotation of the sleeve. By these means the governor will be found to move with ease and regularity and operate sensitively.

I am aware that it is not new to construct two independent grooved sleeves on independent supplementary shafts, one governor-ball being attached to each sleeve. This construction, instead of employing one sleeve and one shaft, uses two sleeves and three shafts, besides two connecting-frames. My construction is much more simple and less expensive than this.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A governor-shaft provided with a lateral pin, in combination with a sleeve which is adapted to move up and down on said shaft, and provided with a spiral way that receives said pin, and a pair of governor-balls attached to said sleeve, and operating substantially as set forth.

2. A governor-shaft provided with a lateral pin, in combination with a sleeve which is adapted to move up and down on said shaft, and provided with a spiral way that receives said pin, a fly-wheel attached to said sleeve, and a pair of governor-balls attached to said sleeve, and operating substantially as set forth.

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

ANDERS BÄCK.

Witnesses:

GUST. HARCLAY SEYRSTAD,
E. A. ZETTERLUND.