

C. H. MORGAN.
Reel for Wire-Rod Rolling-Mills.

No. 224,787.

Patented Feb. 24, 1880.

FIG. 1.

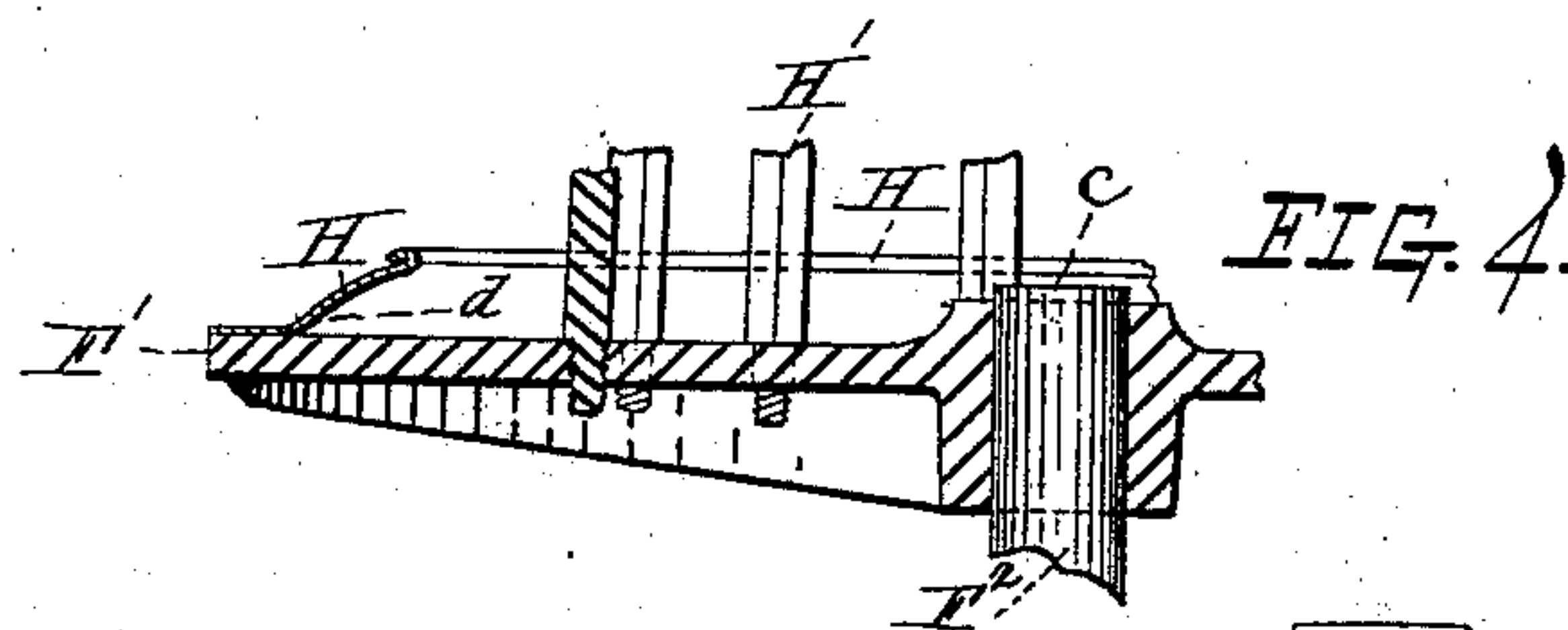
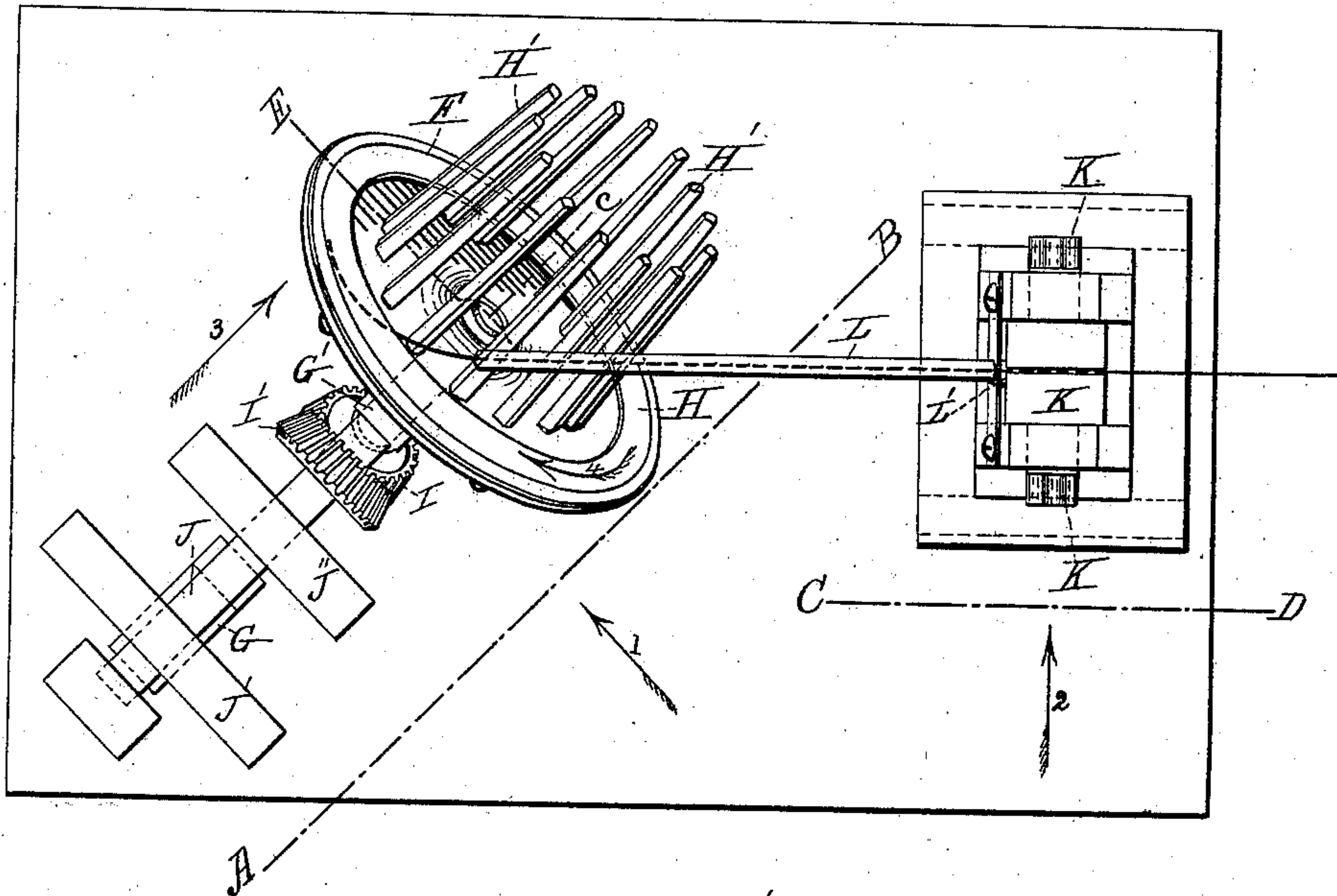


FIG. 2.

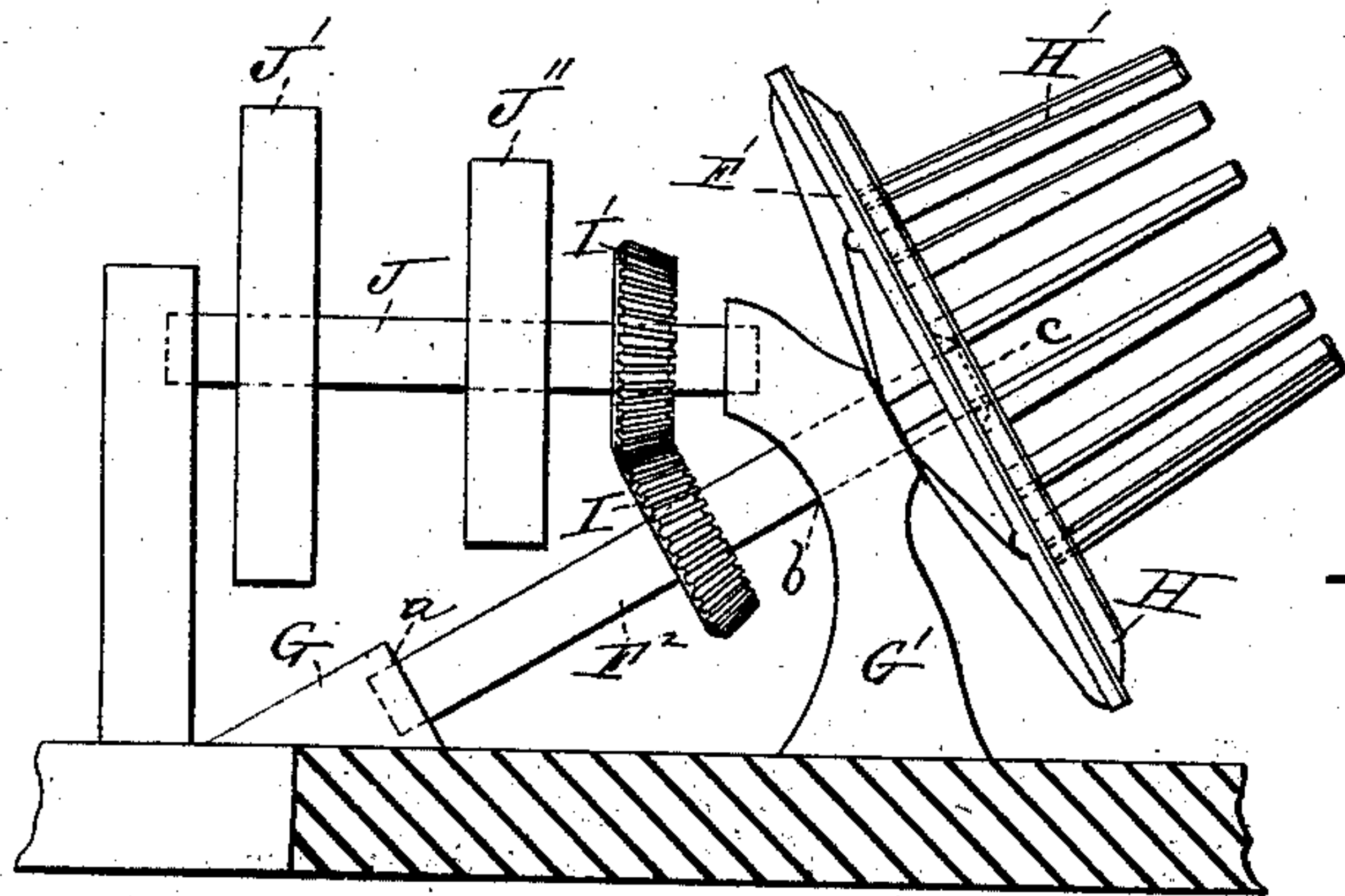
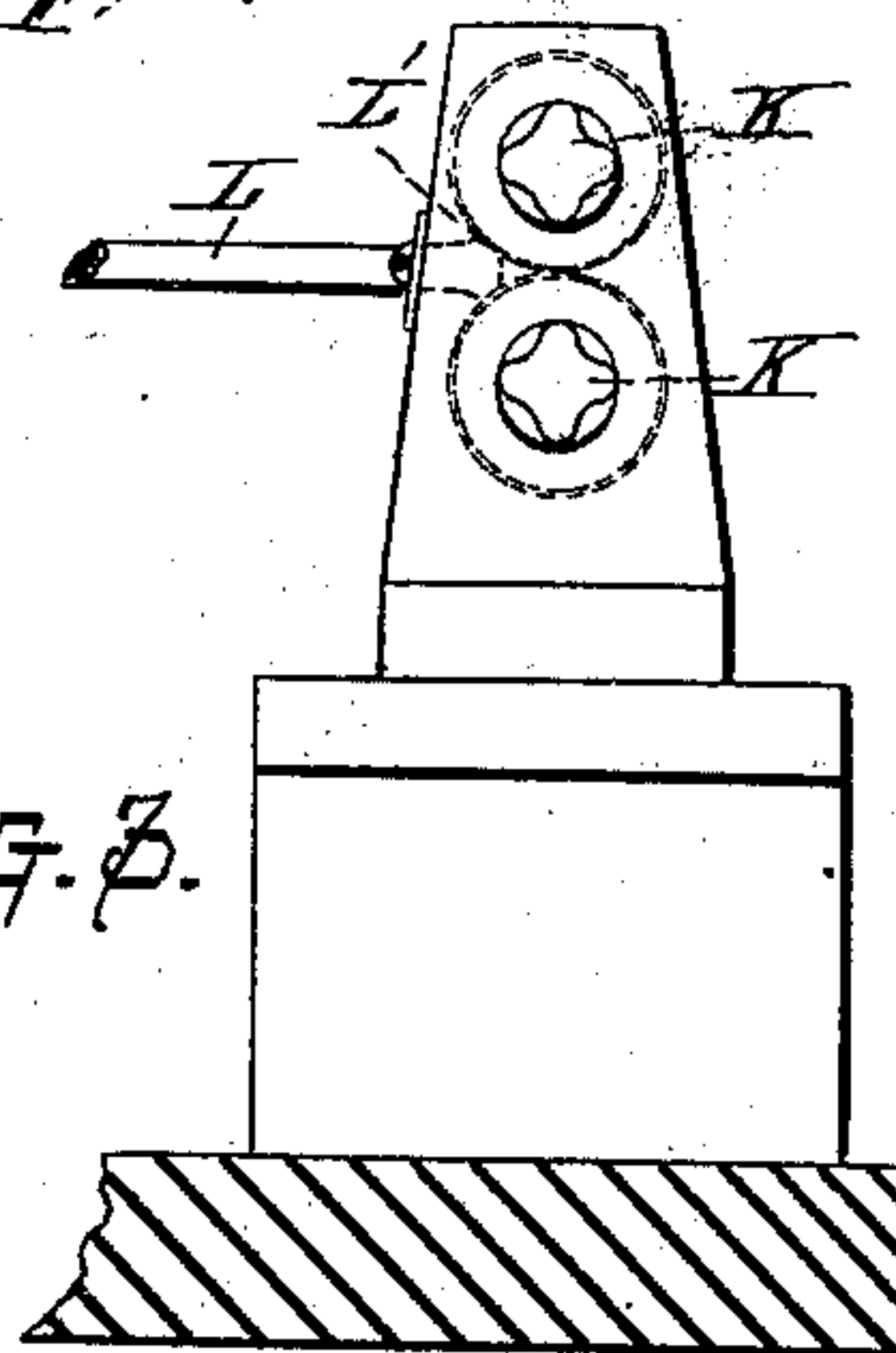


FIG. 3.



Witnesses-

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UNITED STATES PATENT OFFICE.

CHARLES H. MORGAN, OF WORCESTER, MASSACHUSETTS.

REEL FOR WIRE-ROD-ROLLING MILLS.

SPECIFICATION forming part of Letters Patent No. 224,787, dated February 24, 1880.

Application filed October 31, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. MORGAN, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Reels for Wire-Rod-Rolling Mills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a top or plan view of my said improved reel for wire-rod-rolling mills. Fig. 2 represents a section, (indicated by lines A B, Fig. 1,) looking in the direction of arrow 1, same figure. Fig. 3 represents a section on line C D, Fig. 1, looking in the direction of arrow 2, same figure; and Fig. 4 represents a section on line E, Fig. 1, looking in the direction of arrow 3, same figure, section taken as if reel were in a vertical position.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

In the drawings, the part marked F represents my improved reel, which is composed of a base, F', secured to a driving-shaft, F², which turns in suitable bearings *a b* in stand-pieces G G', convex flange H, secured to the upper center face of the base-piece F', and coiling teeth or arms H', which are fastened in and project from the upper inclined face of base F', said arms or teeth H' being arranged in circular form, with their outer ends slightly inclined toward the center *c* of the base F', as fully indicated in the drawings.

Reel F is propelled or rotated in the direction indicated by arrow 4, and this may be accomplished by means of beveled gears I and I', shaft J, and pulleys J' J'', or in any other convenient and desirable manner.

K K represent the last or finishing set of rolls in a wire-rod-rolling mill, and which rolls may be supported in suitable standards and housings.

L is a guide-pipe having a trumpet or enlarged mouth, L', which is fitted to receive the finished rod as it is delivered by the fin-

ishing-rollers K K, so that said finished wire rod will be conducted through conducting-tube L and its end guided so as to strike under convex flange H of the reel, all as fully indicated in dotted lines, Fig. 1, whereby the finished rod will be carried around and coiled upon the arms H' of the reel in a very secure and compact manner.

It will be observed that the convex flange H, in combination with the base F', performs an important function, since the end of the rod, no matter in what position the reel may be, will always strike in the space *d* between the base F' and the convex flange H. Consequently the end of the rod is not liable to escape the action of the reel.

It will be observed that reel F and its shaft are arranged in an inclined position, and that the motion of the reel is about an axis also inclined from a right angle to the motion of the finished rod as it passes through guiding-tube L, and which relative arrangement of parts, as before indicated, insures the end of the finished rod being caught by the reel-arms, and that, too, without any undue twisting or wrenching of the parts or liability of accidents or imperfect coiling of the finished wire rod. As the arms H' are inclined toward the center of the reel, the coil of wire rod is easily removed from said arms.

Having described my improved reel for wire-rod-rolling mills, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The improved reel herein described, consisting of the base F', having convex flange H and arms H', substantially as and for the purposes set forth.

2. The combination, with the finishing-rolls of a wire-rod-rolling mill, of guiding-tube L, and improved reel, consisting of the base F', having convex flange H and arms H', as and for the purposes set forth.

CHAS. H. MORGAN.

Witnesses:

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