

(No Model.)

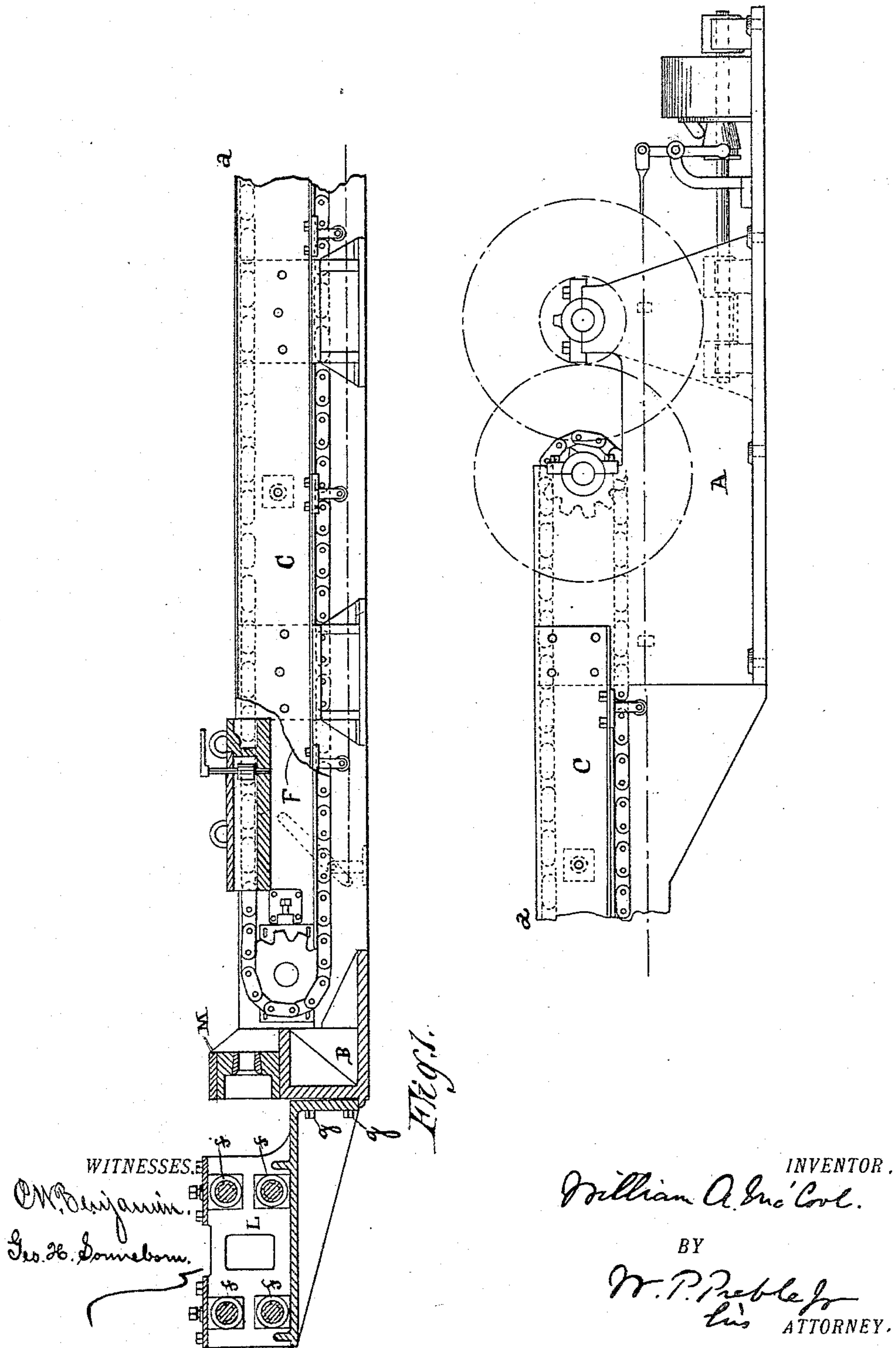
2 Sheets—Sheet 1.

W. A. McCool.

MACHINE FOR DRAWING METALS.

No. 388,782.

Patented Aug. 28, 1888.



(No Model.)

2 Sheets—Sheet 2.

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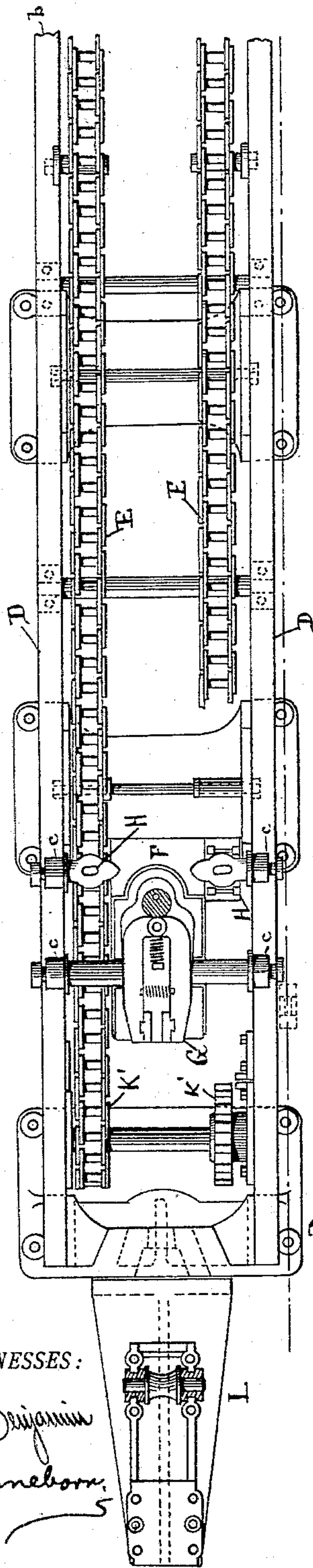
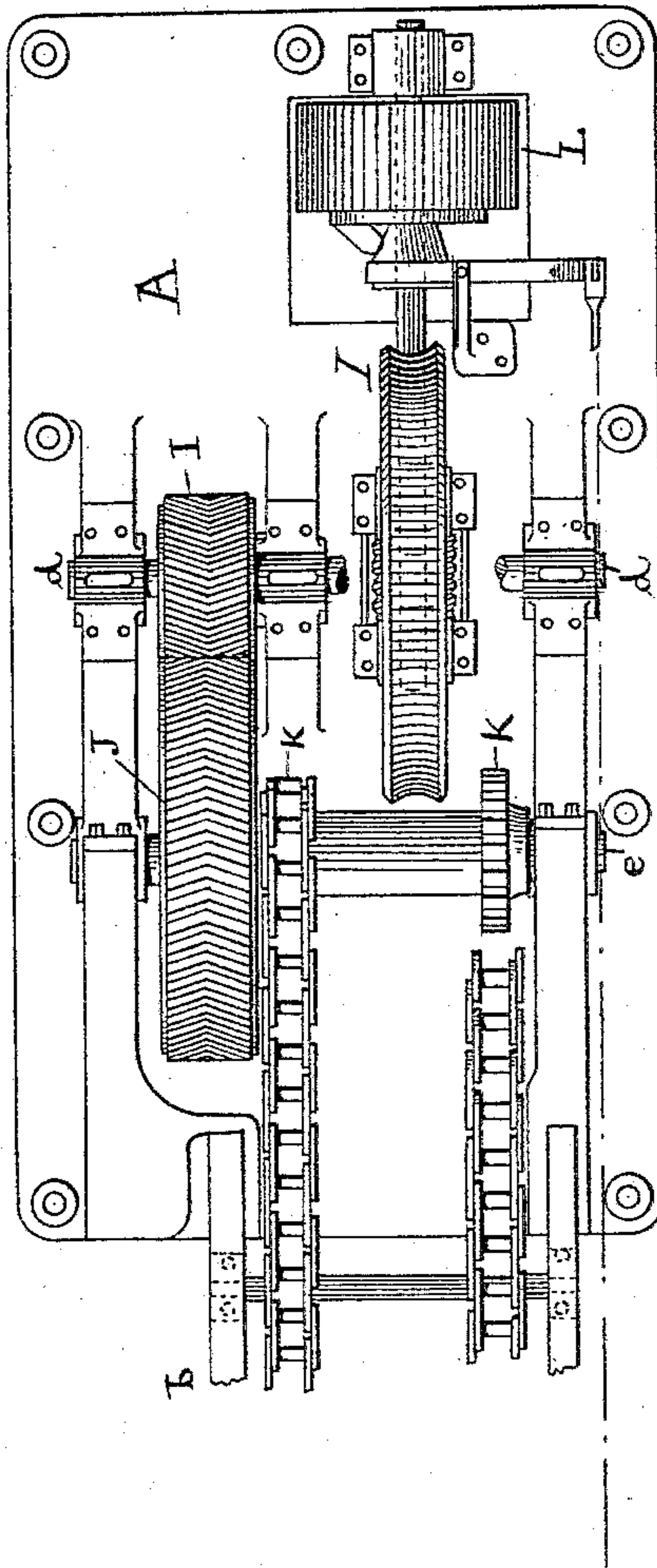


Fig. 2.



WITNESSES:

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INVENTOR.

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BY

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UNITED STATES PATENT OFFICE.

WILLIAM A. McCOOL, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR TO
THE HARTMAN STEEL COMPANY, (LIMITED,) OF SAME PLACE.

MACHINE FOR DRAWING METALS.

SPECIFICATION forming part of Letters Patent No. 383,782, dated August 28, 1888.

Application filed January 28, 1888. Serial No. 262,212. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. McCOOL, a citizen of the United States, and a resident of Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Drawing Metals, of which the following is a specification.

The object of my invention is to provide a machine for drawing metals in which the center of the die, the grip, and the center of each and every pin in the two chains is on a direct line with draft, the draft being a center one, thus making it full, even, and uniform on the working parts of the machine.

One form of my improved machine is shown in the accompanying drawings, in which—

Figure 1 is a side elevation shown in two portions broken away at *a*. Fig. 2 is a top plan shown in two portions broken away at *b*.

Same letters indicate similar parts in the different drawings.

A is a supporting-frame for the driving mechanism. B is the stand which supports the die. Between A and B runs a box or tunnel, C, on top of which is the track D, and through which pass the two drawing-chains E E upon their return motion. The carriage F, mounted upon rollers *c c*, carries the grip G, and is adapted to roll along the track D when it is drawn by the chains E E, into one of whose links the hooks or pins H are dropped.

The driving mechanism consists of a suitable set of interlocking gear, I, mounted upon a suitable shaft, *d*, journaled in the frame A, receiving motion from a source of power (not shown) and communicating it to the main wheel J and the shaft *d*, upon which is mounted a cog-wheel, K, the projections of which in their revolution engage the successive links of the chains in the manner usual to chain pumps and gear. Similar wheels, K', at the other end of the tunnel C, serve to hold the chains continually taut. The entering guide L contains four rollers, *f f*, suitably mounted therein, and between these rollers

the metal is passed from the die, and thence into the grip. The guide is supported by being screwed to the support B by bolts *g g*, and a die, M, of any desired character, is made stationary on the top of said support just in front of the entering guide and on a line with the grip. The grip is substantially of the form shown in my Letters Patent, No. 364,126, granted May 31, 1887, to which patent I refer for its construction and operation.

The operation of my improved drawing-machine will, I think, be obvious without further explanation to all who are familiar with drawing-machines, and especially with my Letters Patent above mentioned. The line of draft being strictly the center one, and each and every part used in producing the drawing motion being on a direct line with the draft, the center of the die, the grip, the center of each and every pin in the two chains, &c., so that when the strain of pulling a bar of metal takes place they make the pull even and alike on all the working parts of the machine.

I claim—

1. A drawing-machine for drawing metals, which consists of two drawing-chains, one on each side of the carriage which supports the grip, mechanism for imparting steady and uniform motion to said chains, and pins or other devices for connecting said carriage with each of said chains, substantially as and for the purpose described.

2. The above-described drawing-machine, provided with a die, a grip, and two chains for imparting motion to said grip, so combined and arranged that the center of the die, the grip, and the center of each and every pin in the two chains is on a direct line with draft, as herein described, and for the purpose specified.

W. A. McCOOL.

Witnesses:

J. F. MERRIMAN,
JOHN REEVES.