

(No Model.)

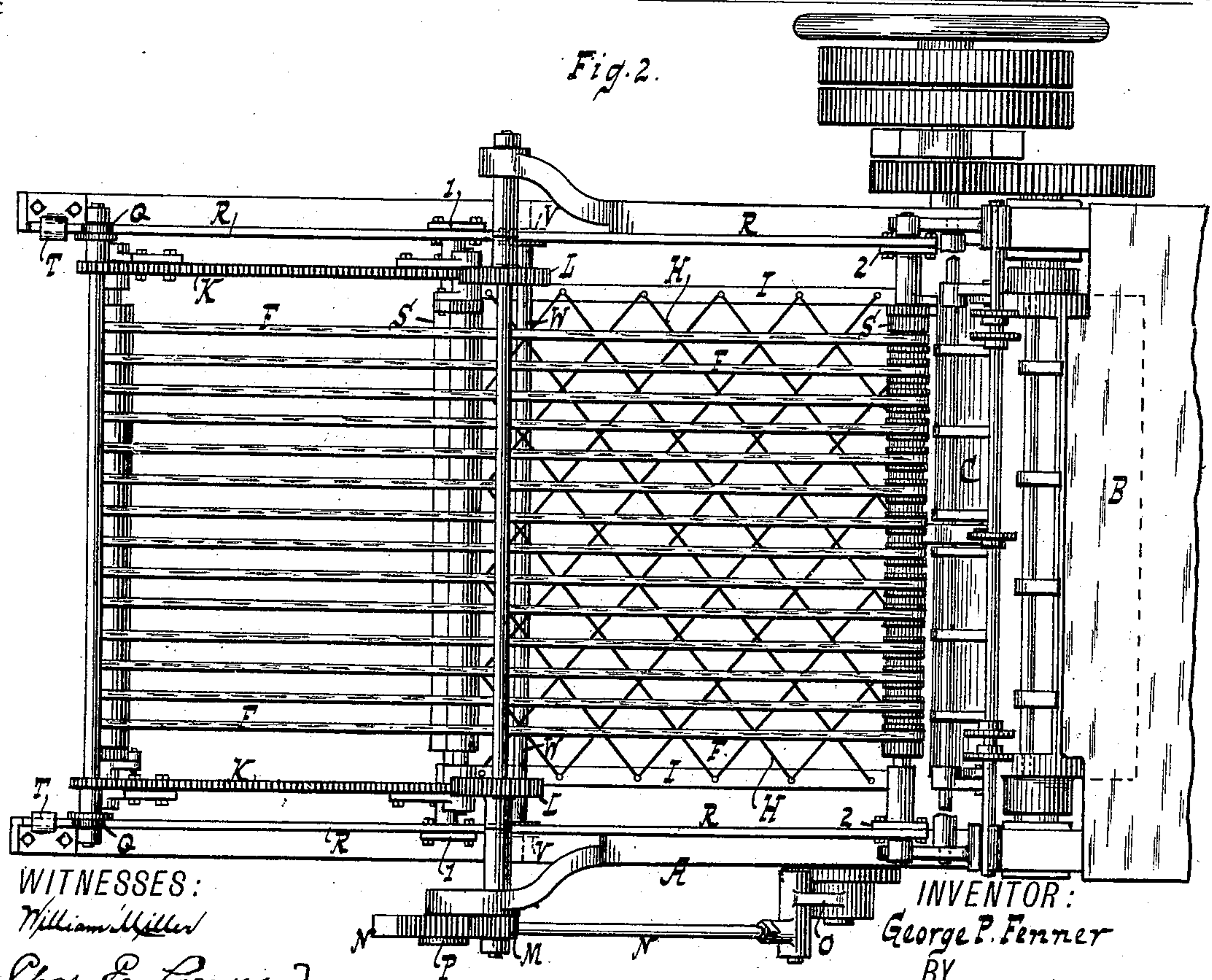
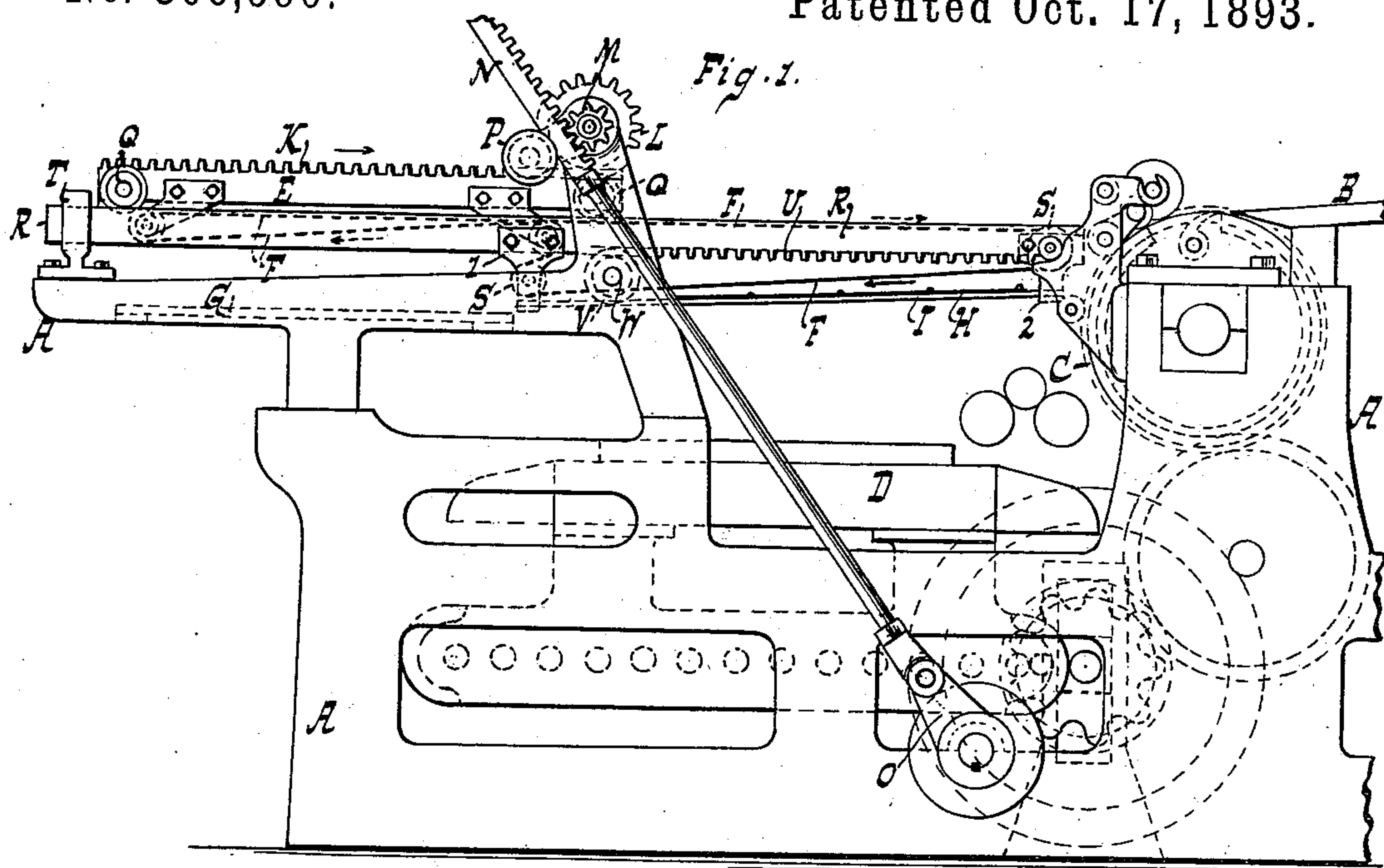
3 Sheets—Sheet 1.

G. P. FENNER.

SHEET DELIVERY APPARATUS.

No. 506,990.

Patented Oct. 17, 1893.



WITNESSES:

William Miller

Chas. E. Porsgen

INVENTOR:

George P. Fenner

BY

Haupt & Haupt

ATTORNEYS.

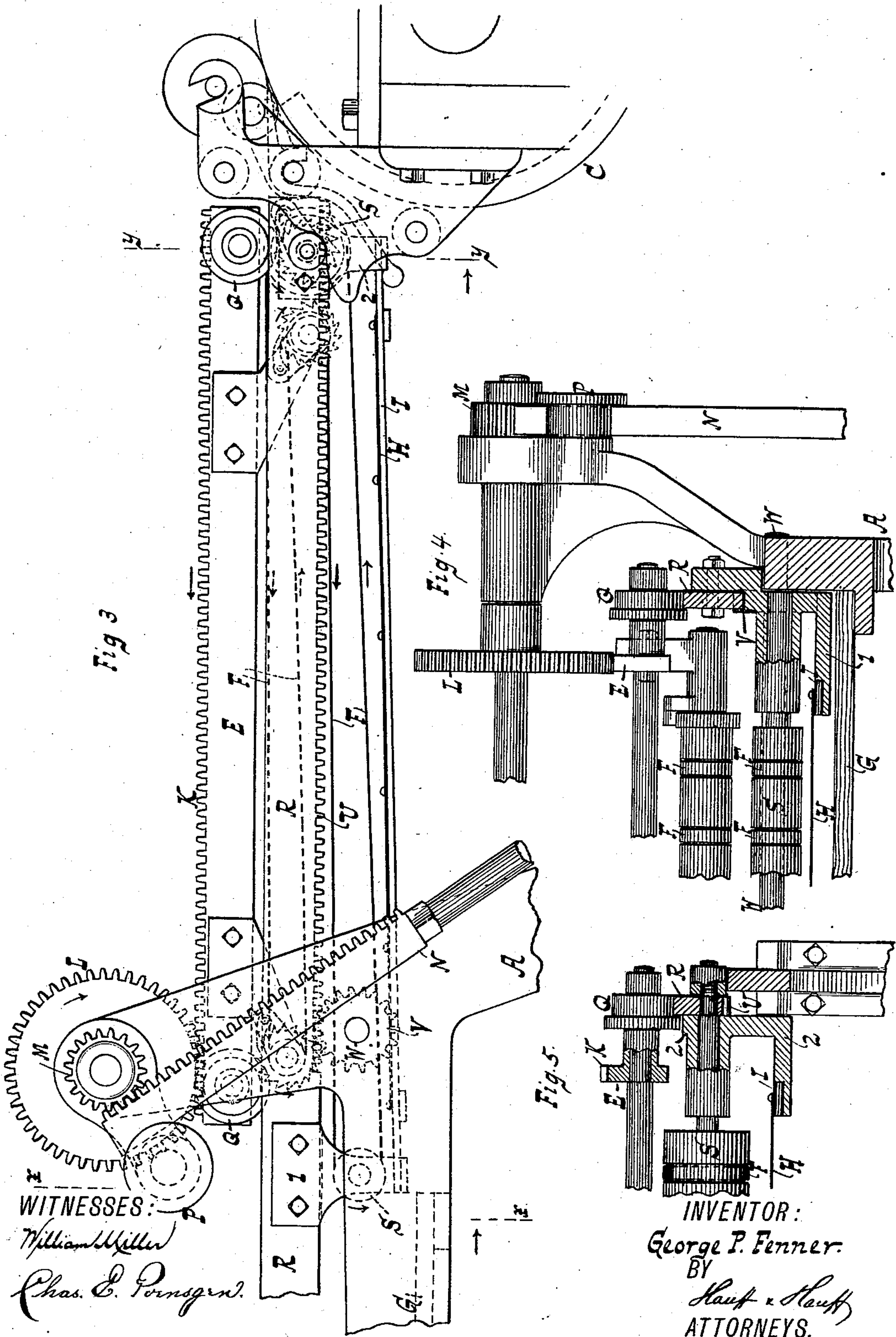
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3 Sheets—Sheet 2.

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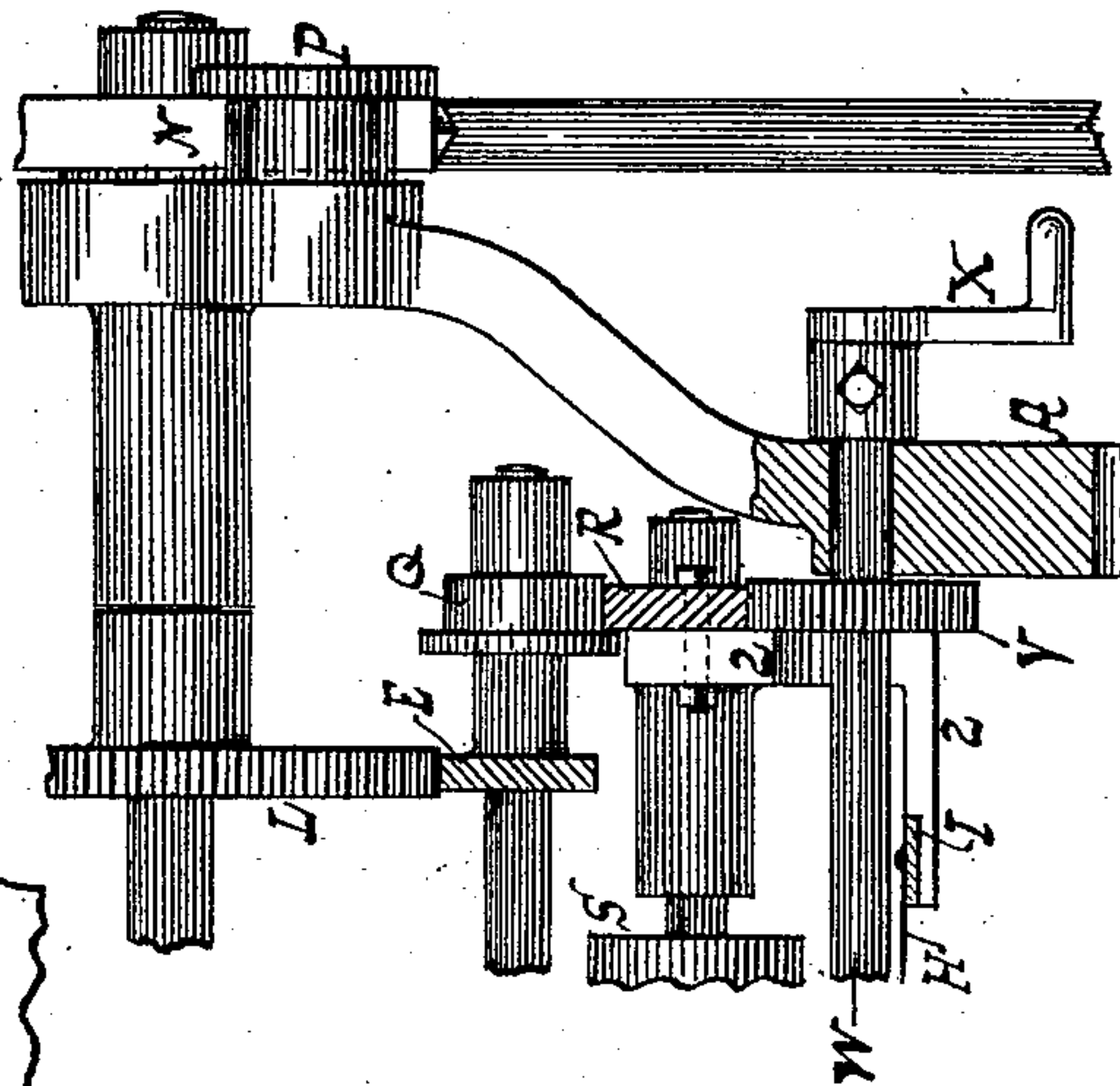
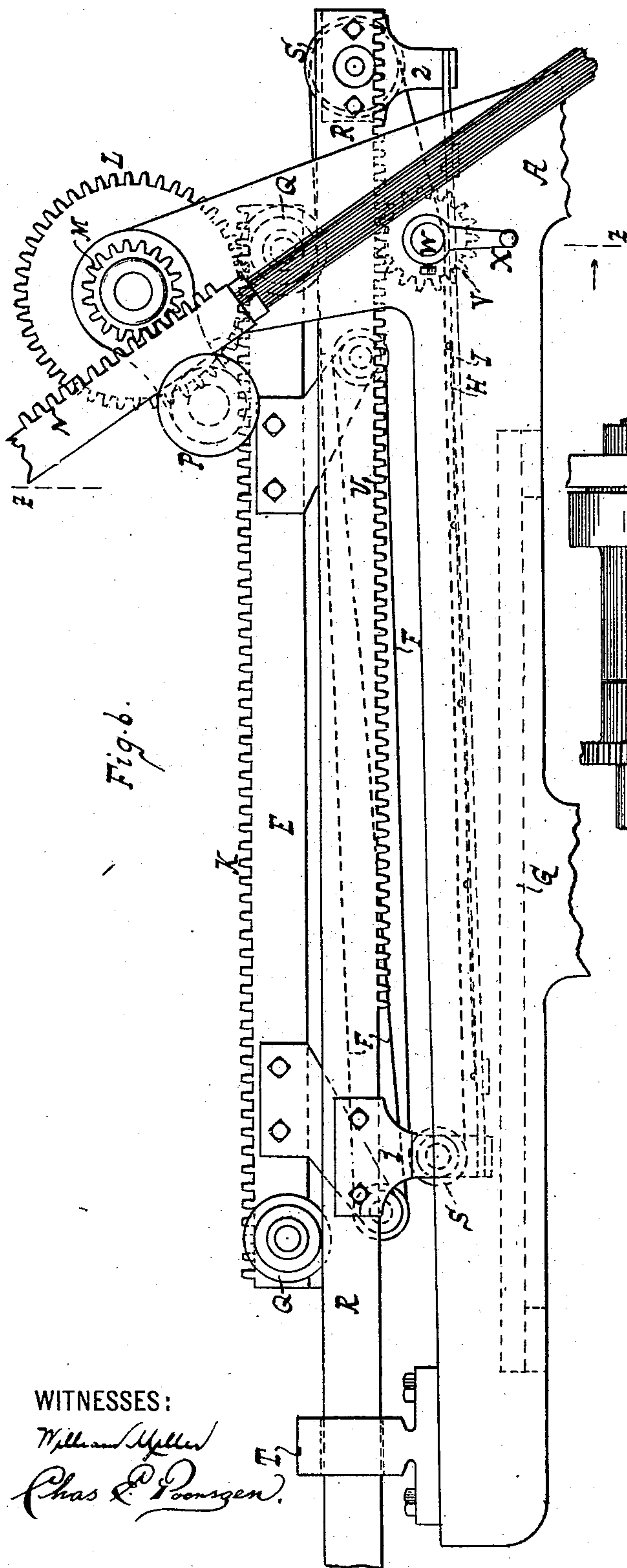
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3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

GEORGE P. FENNER, OF NEW LONDON, CONNECTICUT.

SHEET-DELIVERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 506,990, dated October 17, 1893.

Application filed May 8, 1893. Serial No. 473,488. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. FENNER, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented new and useful Improvements in Sheet-Delivery Apparatus, of which the following is a specification.

This invention relates to an improvement in sheet delivery apparatus and the invention consists in the novel features pointed out in the following specification and claims and illustrated in the annexed drawings in which—

Figure 1 is a side elevation of the sheet delivery apparatus in a printing press. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a side elevation of a tape carriage. Fig. 4 is a section along *xx* Fig. 3. Fig. 5 is a section along *yy* Fig. 3. Fig. 6 is an enlarged side elevation showing the tape-carriage and removable crank, the carriage being in its outward position; and Fig. 7 is a detail sectional view taken on the line *z-z*, Fig. 6.

In the drawings the letter A indicates a frame or support. The sheet being fed off delivery board B and taken by grippers on impression cylinder C is carried between the latter and the type bed D after which the tape carriage E by its tapes F carries the sheet to a receiving board or table G. The operation of these devices may be of any suitable kind as for example that shown in United States Patent No. 324,245, granted to me August 11, 1885. In case a tape F should break and fall down onto a moving part of the device an entanglement or annoyance may result to avoid which I arrange a catch or screen in proximity to the tapes. The screen is readily formed by wires or strands H stretched in a frame or supports I. When a tape breaks or falls it lands on the catch or screen H I so as not to come into contact with any working part of the machine.

The carriage E is provided with a rack K engaged by a gear or driving wheel L connected to or actuated by gear M driven by the rack or rod N actuated by crank O. A roller P keeps the rack in gear with the wheel

M so that the reciprocations of said rack cause the rack K and carriage E to travel back and forth. The carriage E has wheels Q running on the way or tracks R, loosely or slidably supported in the brackets T and on the gears V. The arms or brackets T extend or rise from frame A and the gears V have their shafts W journaled in frame A. During the operation of the carriage the track or way R is stationary but by running or sliding the track R in the arms T away from impression cylinder C the track R with the carriage E thereon can be run out of the machine as in repairing or cleaning.

The track R can be readily run out of its seat by means of racks U on the under side of the track or rails R, said racks being engaged by the gears V which are fast on shaft W but which can be suitably revolved as by a crank or like device X, Figs. 6 and 7, attached to one end of shaft W so as to run the rails R away from impression cylinder C or out of the machine.

When the carriage E is in the position shown in Fig. 1, the tracks R to which are fastened brackets 1 and 2 can be moved out toward the front of press by gears V without in any manner affecting the carriage E. In this operation the rollers S in brackets 1 and 2 constitute a carriage precisely similar to carriage E and can be readily reciprocated under said carriage E. These brackets 1 and 2 are made to support the screen or catch frame H I as seen.

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

1. The combination with an impression cylinder of a type bed, a tape carriage, a removable track or way for the carriage and a catch or screen placed in proximity to the tapes substantially as described.

2. The combination with an impression cylinder, a type bed, a tape carriage and a tape catch or screen of a loosely supported track or way for the carriage, said way having a rack, and a gear V made to engage the rack for running the track off its support substantially as described.

3. The combination with an impression cyl-

inder, a type bed and a tape carriage of a
tape catch or screen, said carriage being pro-
vided with a rack, a gear wheel L made to
engage the carriage rack and a crank actu-
5 ated rod or rack N for oscillating the gear and
carriage substantially as described.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing
witnesses.

GEORGE P. FENNER.

Witnesses:

WILFRED D. WELLS,
WALTER E. SPICER.