

(No Model.)

3 Sheets—Sheet 1.

V. C. REGAN.
STARCHING MACHINE.

No. 571,798.

Patented Nov. 24, 1896.

Fig. 1.

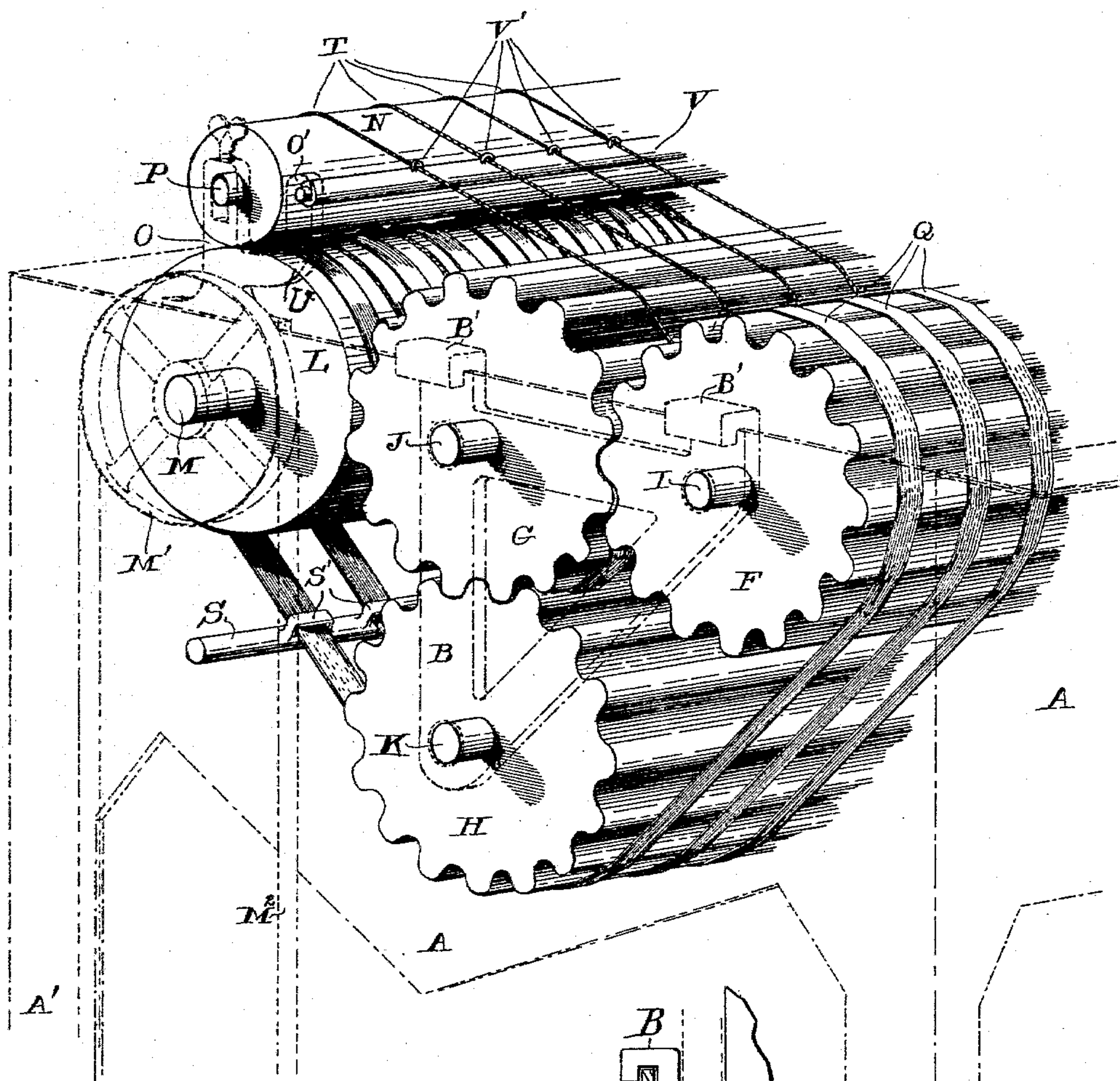
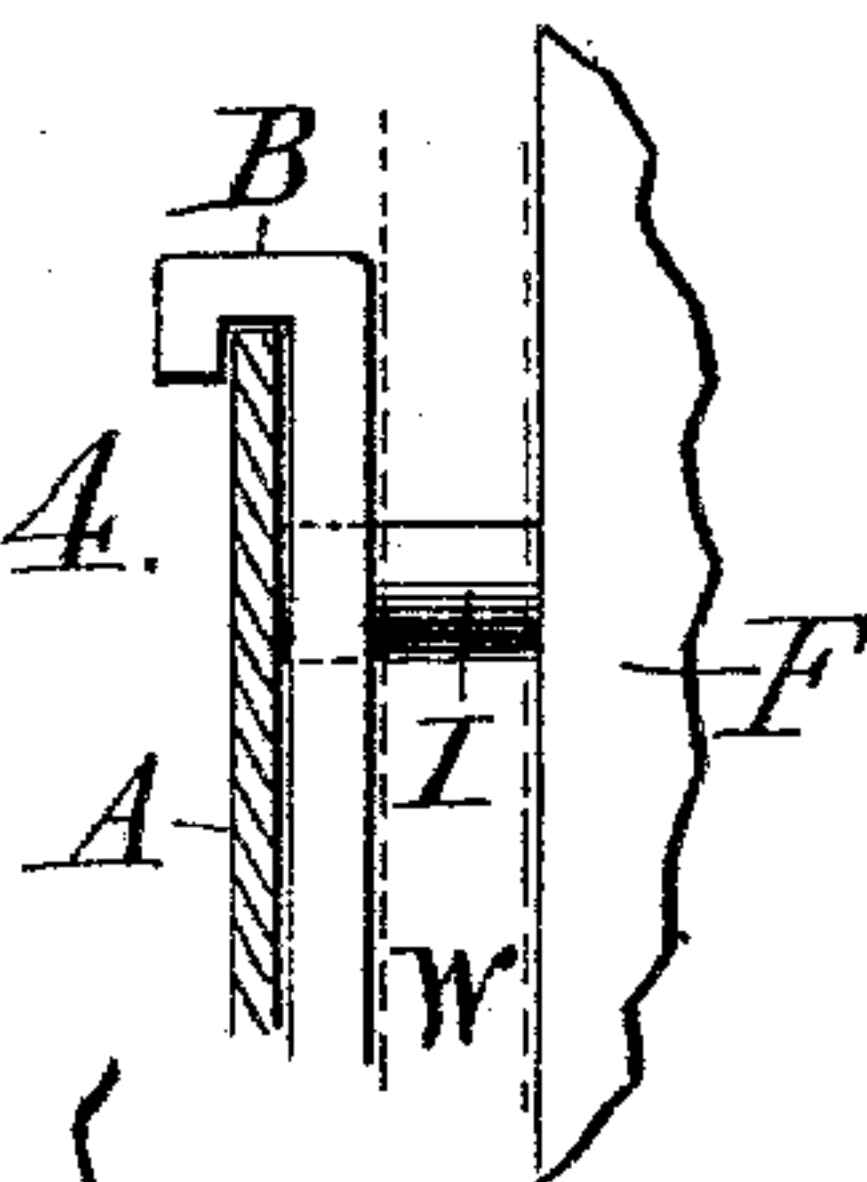


Fig. 4.



Witnesses.

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(No Model.)

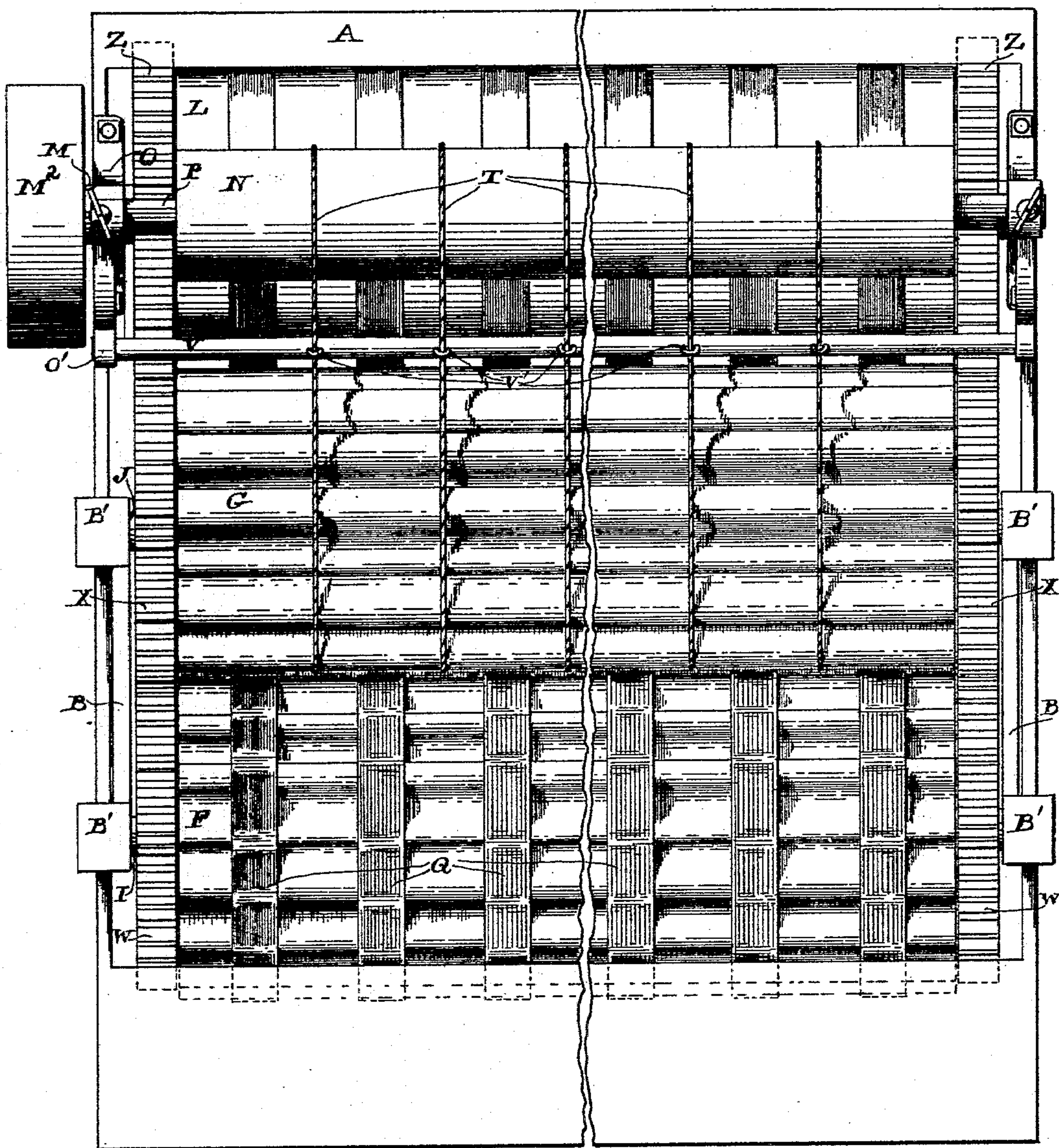
3 Sheets—Sheet 3.

V. C. REGAN.
STARCHING MACHINE.

No. 571,798.

Patented Nov. 24, 1896.

Fig. 3.



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UNITED STATES PATENT OFFICE.

VALLEY C. REGAN, OF ROCKFORD, ILLINOIS.

STARCHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 571,798, dated November 24, 1896.

Application filed April 29, 1896. Serial No. 589,614. (No model.)

To all whom it may concern:

Be it known that I, VALLEY C. REGAN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Starching-Machines, of which the following is a specification.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of the essential parts of a starching-machine embodying my invention with the driving-gears for the corrugated intermeshing starching-rollers removed. Fig. 2 is an end elevation of the same. Fig. 3 is a plan view of this starching-machine, partially broken away near its middle portion. Fig. 4 is a fragmental view of the forward corrugated starching-roller, showing its supporting-gudgeon and the bearing of the latter in its triangular supporting-frame.

A is a starch-box of any suitable form and construction provided with the supporting-legs A'.

B are two metallic frames of triangular form, which in this case I have made of brass, having the two outwardly-projecting hooked lugs B for each frame, one of these frames being located at each end of the machine.

C, D, and E are bearings in the frames B, one located at each of its three angles.

F, G, and H are a series of corrugated intermeshing starching-rollers mounted by means of gudgeons I, J, and K in the bearings C, D, and E, respectively, of the frames B.

L is the lower wringer-roller, mounted by means of the shaft M in the ends of the starch-box A and near to its upper edge.

N is the upper wringer-roller, mounted in the bearing-posts O, which are rigidly connected with and rise above the ends of the starch-box A.

P is the supporting-shaft for the wringer-roller N.

Q is a series of transverse endless guide-tapes driven by the and running over the peripheries of the corrugated starching-rollers F, G, and H and the lower wringer-roller L.

R is a seat secured to the inner face of each of the ends of the starch-box.

S is a bar adapted to rest in the seats R.

S' is a series of tape guide-eyes fast to the bar S and corresponding in number with the individual guide-tapes of the series Q.

T is a series of endless guide-cords driven by and running around the upper wringing-roller N and the corrugated roller G, also bearing upon a portion of the periphery of the lower wringing-roller L.

U is a bracket formed integral with and extending from the side of each of the bearing-posts O.

V is a bar fixed between the upper ends of the posts U.

V' is a series of guide-eyes for the guide-cords, fast to the bar V and corresponding in number with the individual guide-cords of the series T.

W, X, Y, and Z are intermeshing gear-wheels fast to the gudgeons I J K and the shaft M, respectively.

M' is a driving-pulley fast to the shaft M.

M² is a driving-belt for rotating the shaft L.

Motion imparted by the belt M² rotates the corrugated starching-rollers and the two wringer-rollers and drives the tapes and cords.

In operation the starch-box is partly filled with liquid starch and the mechanism put into motion. The articles to be starched are fed between the starching-rollers F and G where they intermesh, are carried by the tapes S' around the latter roller, passing the starching-roller H, and are delivered to the wringer, where they pass between the rollers L and N, which press out the excess of starch absorbed by or adhering to them.

The guide-tapes S' prevent the articles fed into the starcher from winding around the corrugated rollers F and H and the wringer-roller L, while the guide-cords T perform the same office respecting the rollers G and N.

When it is desirable to remove the corrugated rollers from the starch-box to clean the latter or adjust the parts, it may readily be done, as their supporting-brackets B are suspended in the starch-box by the hook-lugs B', and may be lifted out at pleasure.

I claim—

1. In a starching-machine, in combination, a starch-box, a series of corrugated intermesh-

ing starching-rollers mounted therein, a series of transverse endless guide-tapes driven by and traveling with the corrugated starching-rollers, a lower, and an upper, wringer-roller, the former mounted in, and the latter upon, the starch-box, and a series of transverse endless guide-cords driven by one of the corrugated starching-rollers and traveling therewith and with the wringer-rollers, and a series of guide-eyes corresponding in number with the guide-cords, which cords pass through and are guided by said guide-eyes, substantially as and for the purpose specified.

2. In a starching-machine, in combination, a starch-box, a series of corrugated intermeshing starching-rollers mounted therein, a series of transverse endless guide-tapes driven by and traveling with the corrugated starching-rollers, a series of tape guide-eyes corresponding in number with the guide-tapes, a lower, and an upper, wringer-roller, the former mounted in, and the latter upon, the starch-box, and a series of transverse endless guide-cords driven by one of the corrugated starching-rollers and traveling therewith and

with the wringer-rollers, substantially as and for the purpose specified.

3. In a starching-machine, in combination, a starch-box, three corrugated, intermeshing starching-rollers, trunnions for the rollers, a bracket suspended from each side of the starch-box, having bearings for the trunnions, a wringer-roller mounted in bearings in the starch-box, a wringer-roller mounted above the box, a series of transverse endless guide-tapes extending around two of the corrugated rollers and the lower wringer-roller and beneath the remaining and intermediate corrugated roller, a series of guide-eyes for the guide-tapes, a series of transverse endless guide-cords extending around the aforesaid intermediate corrugated roller and the upper wringer-roller, and a series of guide-eyes for the guide-cords substantially as and for the purpose specified.

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Witnesses:

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