

No. 610,012.

Patented Aug. 30, 1898.

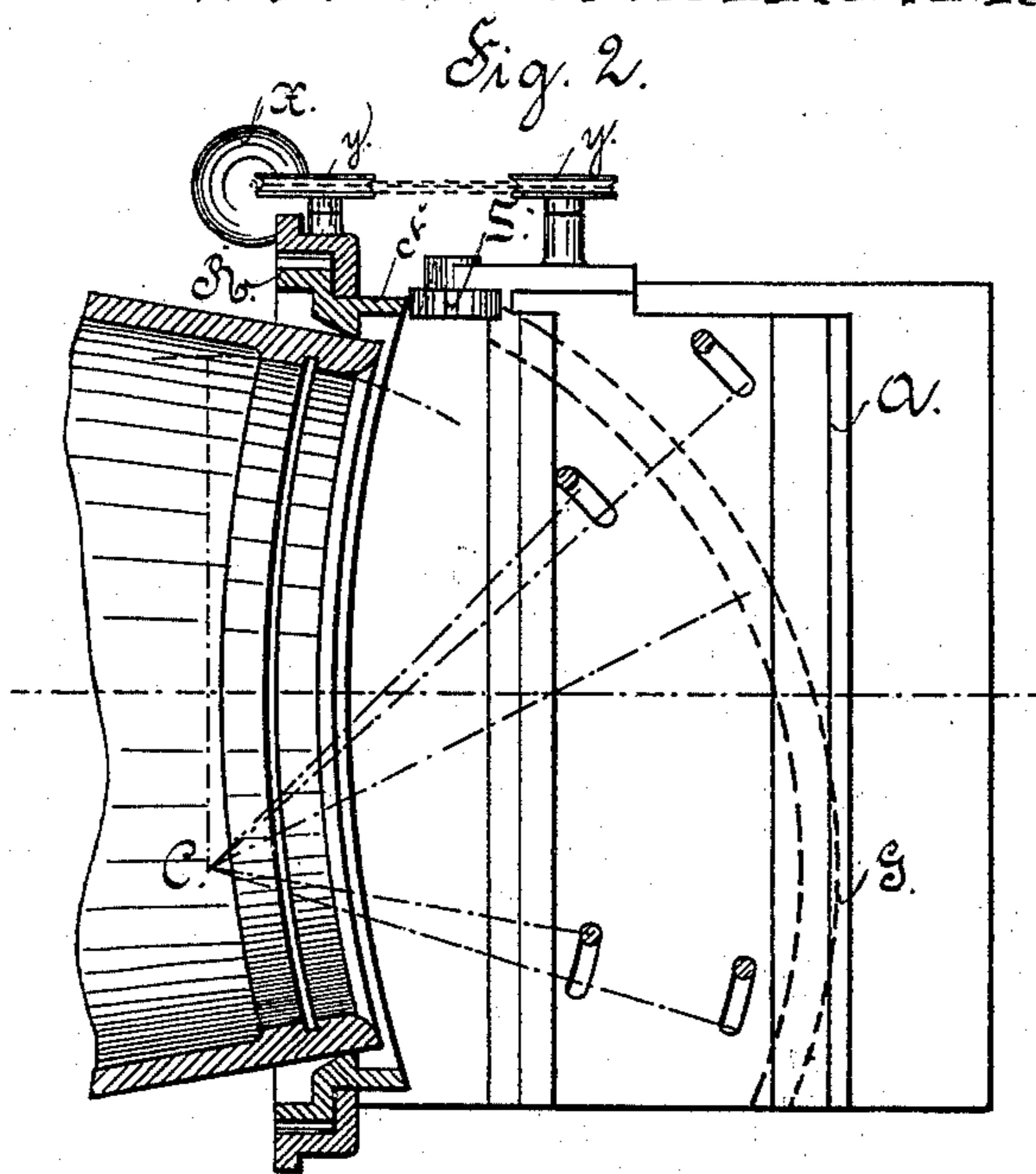
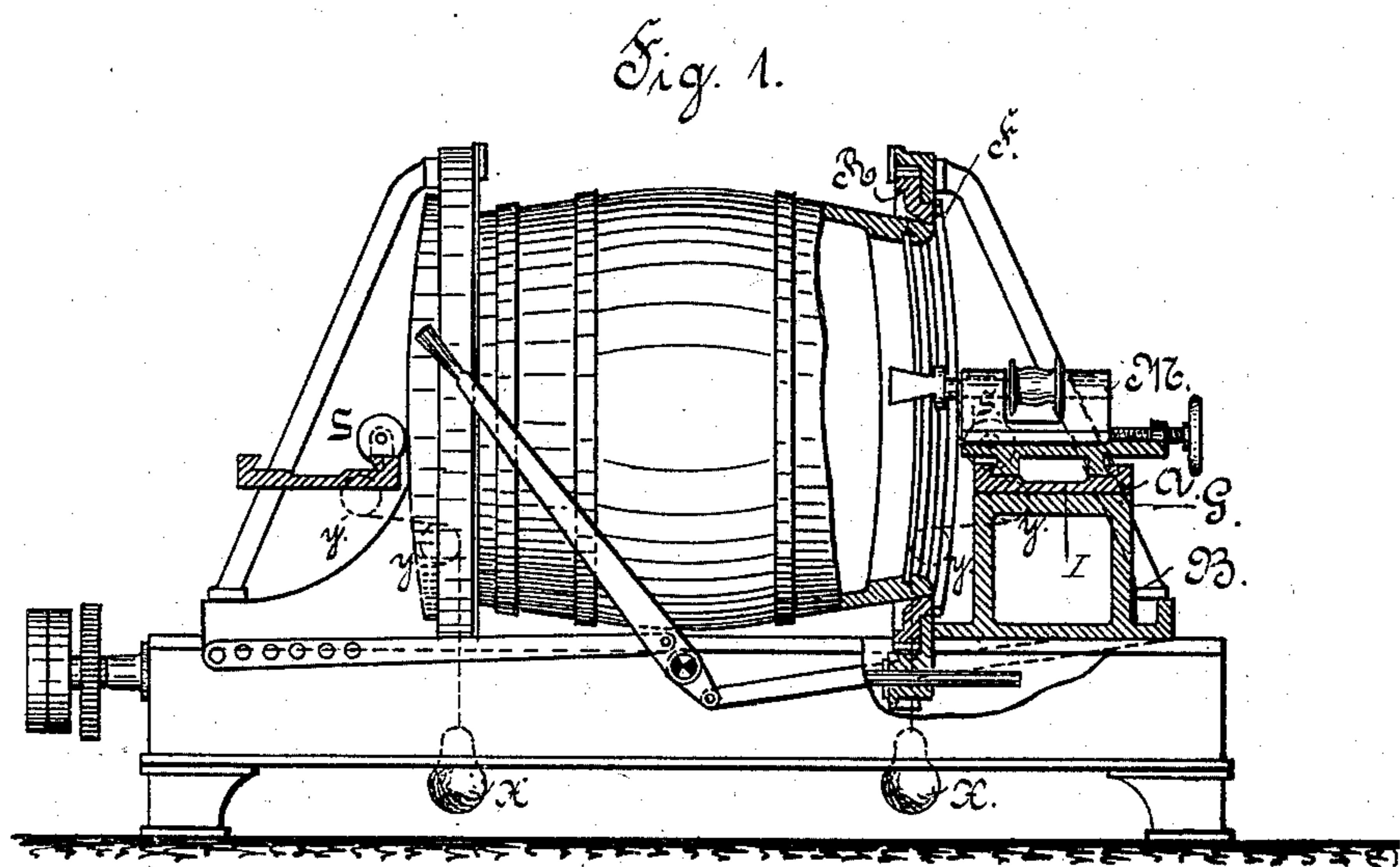
J. ANTHON.

MACHINERY FOR MAKING GROZES FOR CURVED CASK HEADINGS.

(Application filed Dec. 7, 1897.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:

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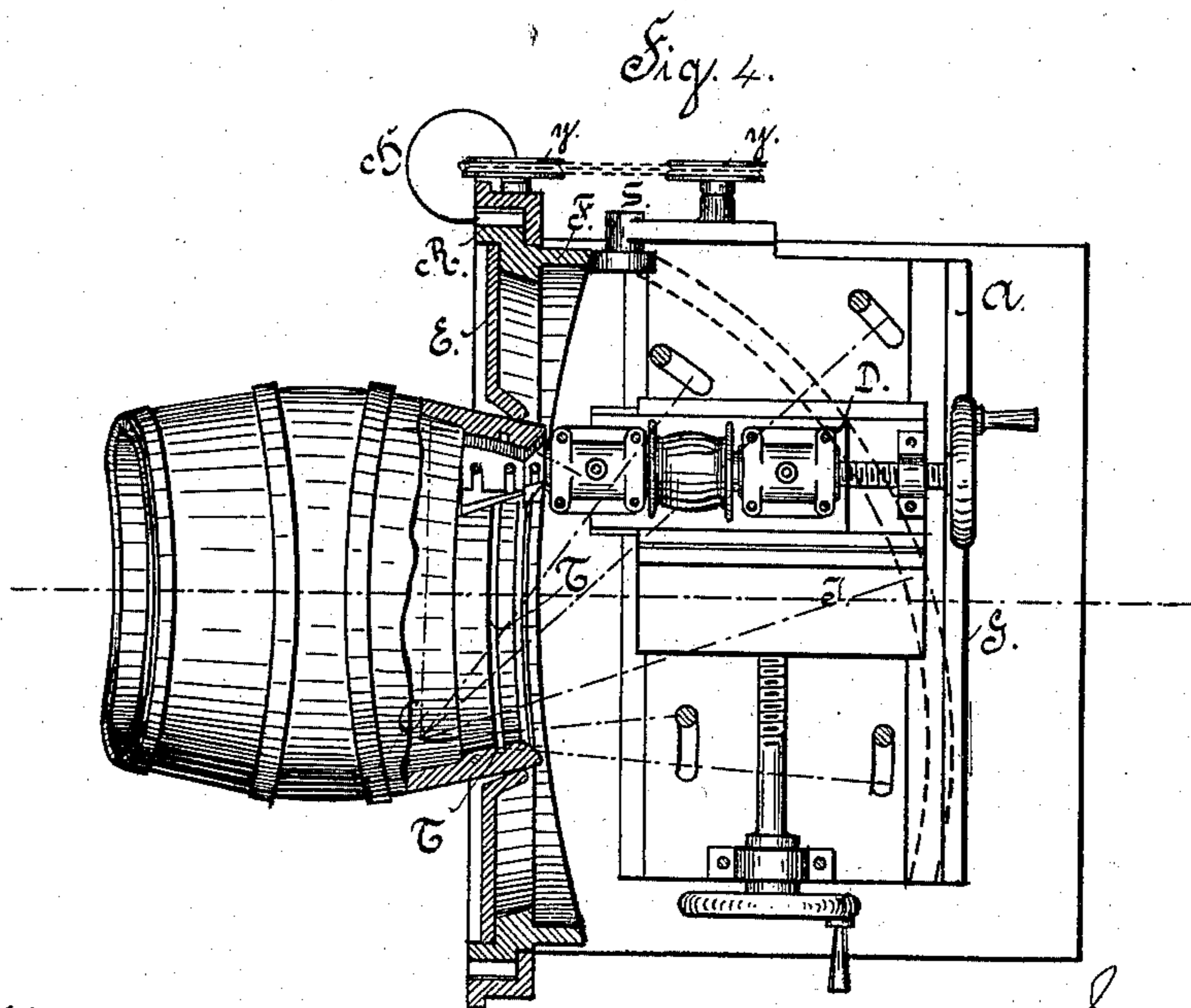
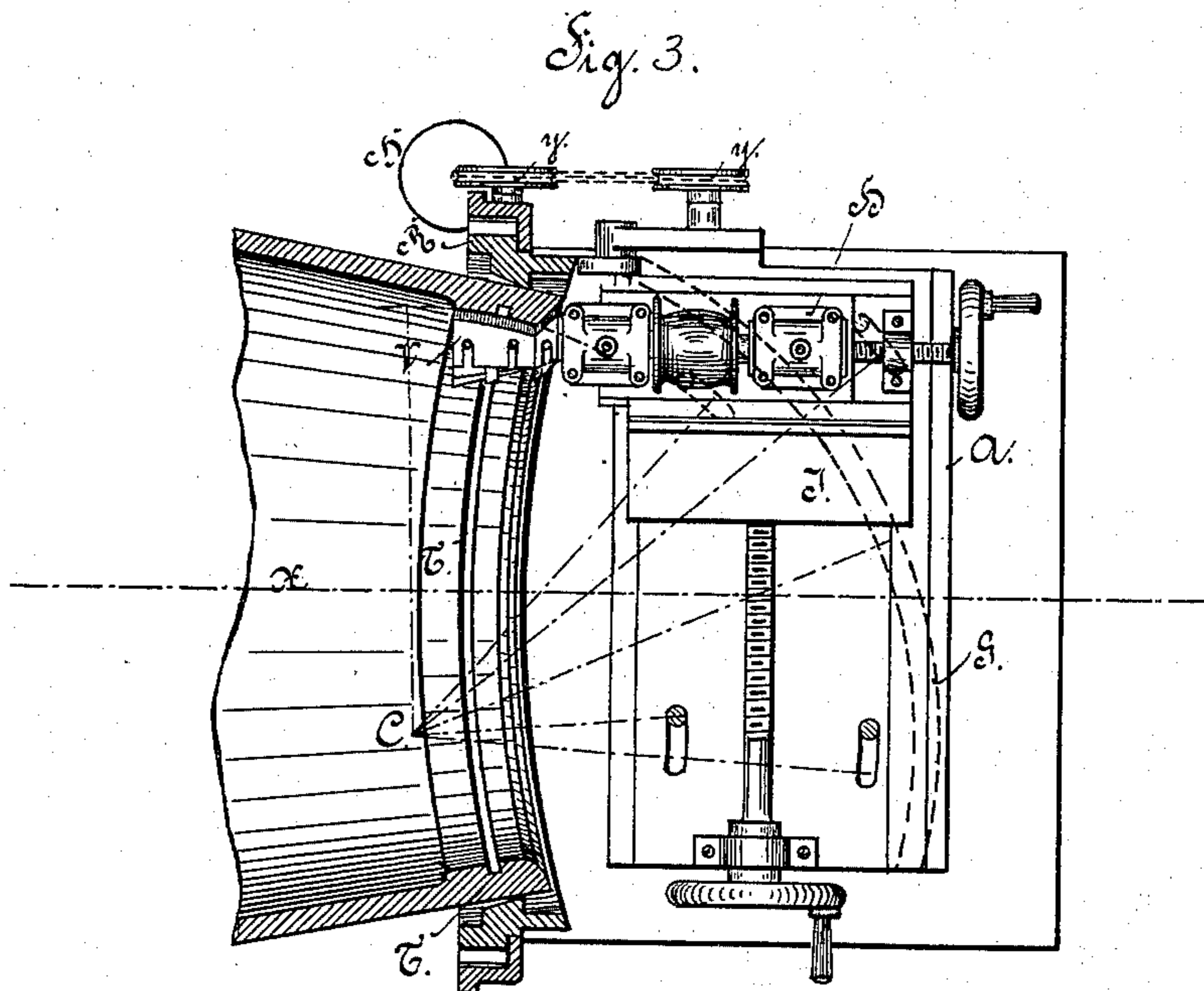
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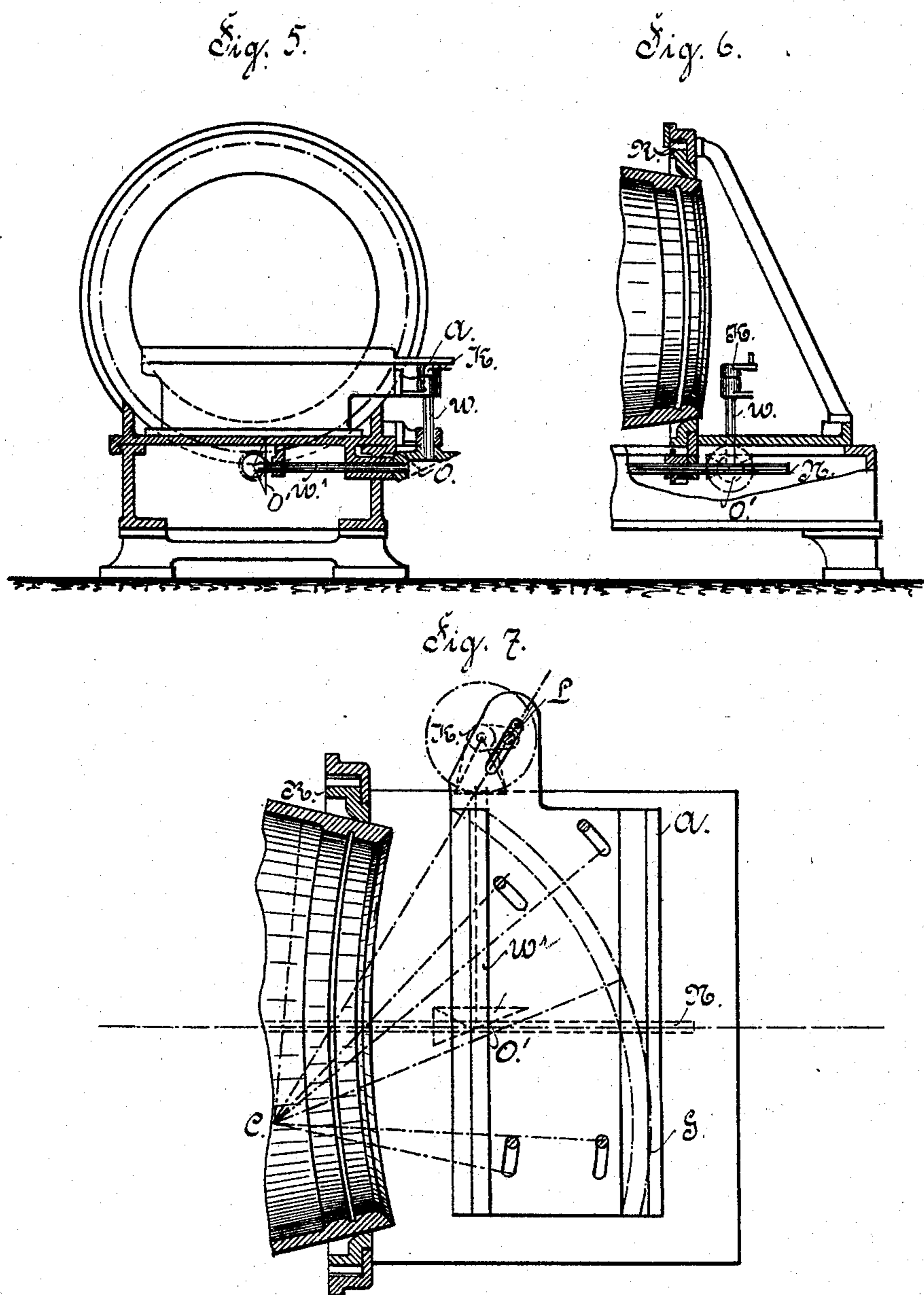
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

JOHANN ANTHON, OF FLENSBURG, GERMANY.

MACHINERY FOR MAKING CROZES FOR CURVED CASK-HEADINGS.

SPECIFICATION forming part of Letters Patent No. 610,012, dated August 30, 1898.

Application filed December 7, 1897. Serial No. 661,039. (No model.)

To all whom it may concern:

Be it known that I, JOHANN ANTHON, a subject of the King of Prussia, German Emperor, residing at Flensburg, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Machinery for Making Crozes for Curved Cask-Headings; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to crozing-machines; and it consists in the novel construction and combination of the parts, hereinafter fully described and claimed, for cutting curved crozes.

In the drawings, Figure 1 is a side view of the machine, partly in section. Fig. 2 is a plan view of one end portion of the machine, partly in section and drawn to a larger scale. Fig. 3 is a plan view, partly in section, showing the preferred means for cutting a curved croze. Fig. 4 is a similar view to Fig. 3, but shows devices for operating on smaller casks. Fig. 5 is a cross-section, Fig. 6 is a partial longitudinal section, and Fig. 7 is a plan view, showing a modified mechanism for cutting a curved croze.

R is the ring which supports one end of the cask, and E is a liner, Fig. 4, which is used when a small cask is to be crozed in the machine. The ring R is provided with teeth on its periphery and is revolved by a toothed pinion on the shaft N. The ring R is journaled in one of the end frames of the machine.

F is a curved pattern carried by the ring R, and S is a roller which is pressed against the pattern F by means of a weight X and a chain which passes over one or more guide-sheaves y and is attached to the plate A, which carries the said roller.

B is a base-plate which carries the end frame and is provided with a curved guide G for the plate A to slide on. The guide G is struck from a center C, which is so arranged, as shown in Fig. 2, that the guide G is substantially parallel with the curved end portion of the barrel, at one side thereof, where the croze is to be cut when the cask or barrel is in position in the ring R.

I is a plate which is slidable in guides W' on the plate A crosswise of the cask, and M is a

cutter-head slidable on the plate I longitudinally of the cask.

The cutter r for cutting the croze is carried by the cutter-head and is provided with means for revolving it of any approved construction. The cutter is fed by hand against the cask to cut the croze, and the curvature of the croze is controlled by the pattern F, which is shaped appropriately.

Instead of using a pattern F to form the curve of the croze a crank K may be used, as shown in Figs. 5, 6, and 7. The crank K is arranged at the rear of the machine, and it is mounted on a vertical shaft W. The shaft W is driven by beveled toothed wheels O and a horizontal shaft W'. The shaft W' is driven by beveled toothed wheels O' from the shaft N, which drives the ring R. The pin of the crank engages with a slot L in the plate A, which slot is arranged radial of the point C, about which the cutter is to oscillate. The toothed wheels are arranged so that the crank revolves twice for each revolution of the cask, and the amount of curvature is adjusted by varying the throw of the crank-pin.

What I claim is—

1. In a crozing-machine, the combination, with means for holding and revolving a barrel; of a stationary base B arranged at the end of the barrel, a plate A slidable on the said base, guide mechanism constraining the said base to slide on an arc substantially parallel with the curved end portion of the barrel at one side thereof, means for supporting a cutter from the said plate at the said side of the barrel, and driving devices positively connected with the said means for revolving the barrel and operating to reciprocate the said plate back and forth a prearranged number of times during each revolution of the barrel, and to place the said plate at the end of each revolution of the barrel in the position it occupied at the beginning of the revolution, substantially as set forth.

2. In a crozing-machine, the combination, with means for holding and revolving a barrel; of a stationary base B arranged at the end of the barrel, a plate A slidable on the said base, guide mechanism constraining the said plate to slide on an arc substantially

parallel with the curved end portion of the barrel at one side thereof, said plate being provided with a slot arranged at substantially a right angle to the said curved side portion
5 of the barrel, means for supporting a cutter from the said plate at the said side of the barrel, and a crank provided with a crank-pin which engages with the said slot and re-

ciprocates the said plate as the barrel is revolved, substantially as set forth. 10

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHANN ANTHON.

Witnesses:

JENS HANSEN,

HOLGER MATTHIESEN.