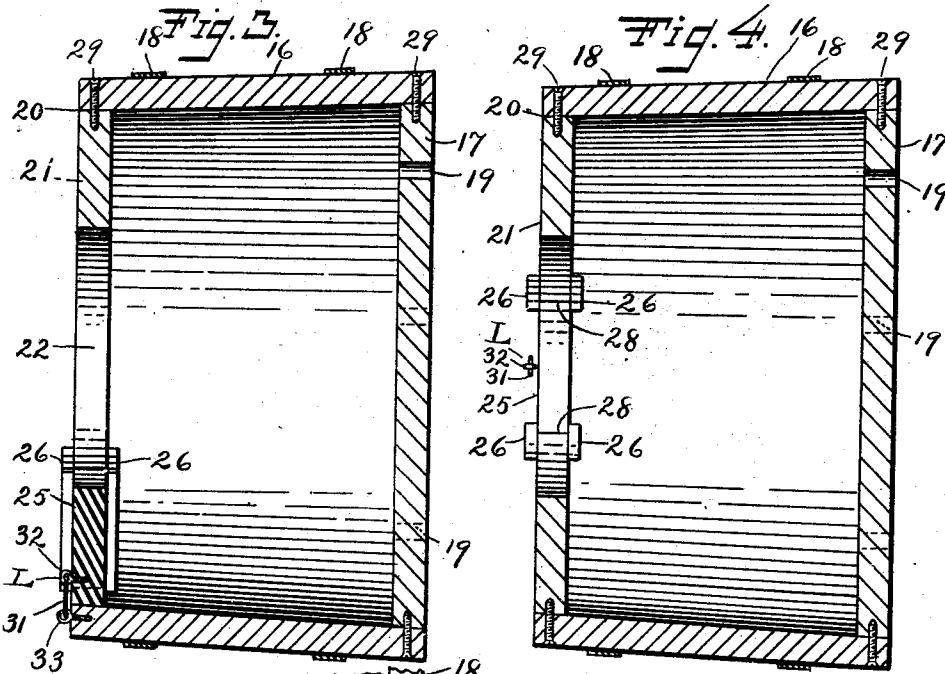
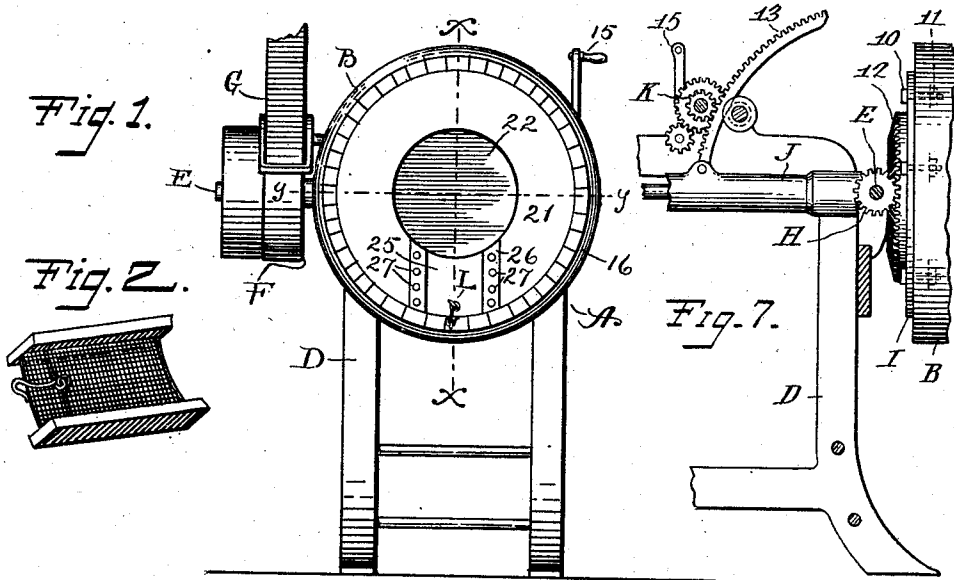


H. A. JOHNSON & J. W. FORCE.
ROLLING BARREL.
APPLICATION FILED JAN. 19, 1911.

994,258.

Patented June 6, 1911.



Witnesses:
S. H. Clarke
W. L. Lockwood

Fig. 5.

24
23
26
28
33

Fig. 6.

Inventors
Herbert A. Johnson.
John W. Force.

By Louis M. Schmidt
Atty.

UNITED STATES PATENT OFFICE.

HERBERT A. JOHNSON AND JOHN W. FORCE, OF NEW BRITAIN, CONNECTICUT, ASSIGN-
ORS TO THE NORTH AND JUDD MANUFACTURING COMPANY, OF NEW BRITAIN,
CONNECTICUT, A CORPORATION.

ROLLING-BARREL.

994,258.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed January 19, 1911. Serial No. 603,579.

To all whom it may concern:

Be it known that we, HERBERT A. JOHNSON and JOHN W. FORCE, citizens of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Rolling-Barrels, of which the following is a specification.

Our invention relates to improvements in rolling barrels and particularly as applied to the barrel proper and the objects of our improvements are simplicity and economy in construction and convenience and efficiency in use.

In the accompanying drawings:—Figure 1 is a view of the front end of our rolling barrel. Fig. 2 is a perspective view of a screen gate, on an enlarged scale. Fig. 3 is a sectional view of the barrel proper on the line *x x* of Fig. 1. Fig. 4 is a similar view on the line *y y* of Fig. 1. Fig. 5 is a fragmentary view similar to Fig. 3, the gate being removed. Fig. 6 is a view similar to Fig. 2, of a solid gate. Fig. 7 is a side elevation of the rolling barrel shown in Fig. 1.

A is our rolling barrel and comprises the barrel proper B and means of support therefor, and operating mechanism whereby the said barrel proper B may be rotated on its axis. The said supporting and operating mechanism comprises a standard or frame work D having means for operatively supporting a driving shaft E having a driving pulley F driven by a belt G, and means for operatively supporting the said barrel proper B, all of which is ordinary. The operative supporting means may comprise, as shown, an annular supporting plate or ring I, to which the barrel proper B is secured by means of bolts 10 and nuts 11, and provided with an annular rack 12, all supported from the frame work D in an ordinary manner on the end of a shaft supported within the sleeve J, which may be tilted and adjusted to different angular positions by means of a segmental rack 13, which is connected by gearing K with a crank and handle 15. For operating the said barrel proper B a gear H mounted on a horizontal shaft E meshes with the said annular gear 12. The said barrel proper B comprises a generally cylindrical shell like structure, the exterior wall 16 preferably being divergent from the front to the rear, and provided

with a closed bottom 17. The said exterior wall 16 and bottom 17 may be made of wood of conventional form, and held together by means of hoops 18. The said bottom 17 has bolt holes 19 suitable for receiving bolts whereby the said bottom 17 is secured to the said standard or frame work D and the said barrel proper B is operatively supported in the manner described. At the front end 20 of the said barrel proper B we provide a dam 21 comprising an annular plate the outer periphery of which is a fit for the said front end 20 and is rigidly secured in place in an ordinary manner, as by the pressure of the said hoops 18 on the said side or outer wall 16 and screws 29. Centrally the said dam 21 is provided with a hole 22, shown as circular, which serves as a hand hole, whereby access may be obtained to the interior of the said barrel proper B, as for the purpose of inserting or removing stock to be operated upon, abrasive or polishing material, and water. The said annular dam 21 has on one side an opening or slot 23, shown as extending across the same and which opening has lateral walls 24 that are parallel with the radius passing through the center of the said opening or slot 23 and the dam is provided with a gate 25 which fits the said side walls 24 and slot 23 and when in normal position in said slot serves to close the same and thereby complete the annular formation of the said dam 21. Guide plates 26 secured by rivets 27 to the said dam 21 overhang the said opening or slot 23, there being one such plate 26 on the front and another on the back of each of the said lateral walls 24, thereby forming on each side a grooved channel 28 for guiding the said gate 25 when being inserted in place in the said dam 21 or removed therefrom and to hold the same against displacement toward the front or back. The said gate is held in place against displacement radially by means of a catch L comprising as shown a swinging hook 31 secured to the said gate 25 by the screw eye 32 and the screw eye 33 screwed into the said barrel proper B, and in such position as to register and engage with the said hook 31 when in normal position with the gate closed.

As described our rolling barrel has means for being rotated and on account of the hand hole has ready means of access to the

interior; and on account of the provision of the gate the same may be readily emptied entirely of its contents; and furthermore, and in combination with the features mentioned it is possible to operate our barrel at such an adjusted position of its axis that the lower or bottom portion of the barrel proper B will be essentially horizontal during normal conditions of operation. This latter feature we find facilitates a proper and effective distribution and intermingling of the stock or goods operated upon and the abrasive or operative materials, which latter may include hardened steel balls and a supply of water.

In Fig. 2 is shown a screen gate M which may replace the solid gate L.

It is apparent that some changes from the specific construction herein disclosed may be made and therefore we do not wish to be understood as limiting ourselves to the precise form of construction shown and de-

scribed, but desire the liberty to make such changes, in working our invention, as may fairly come within the spirit and scope of the same.

We claim as our invention:—

A rolling barrel comprising a barrel proper and means for operatively supporting the same, the said barrel proper comprising a shell-like structure provided at one end with an annular dam having a central hand hole and the said means comprising means for varying the inclination of the axis of revolution of the said barrel proper, and the said annular dam provided with a gateway extending radially across one side of the same and a gate therefor.

HERBERT A. JOHNSON.
JOHN W. FORCE.

Witnesses:

R. J. P. NUSS,
ILLA F. HOFFMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
