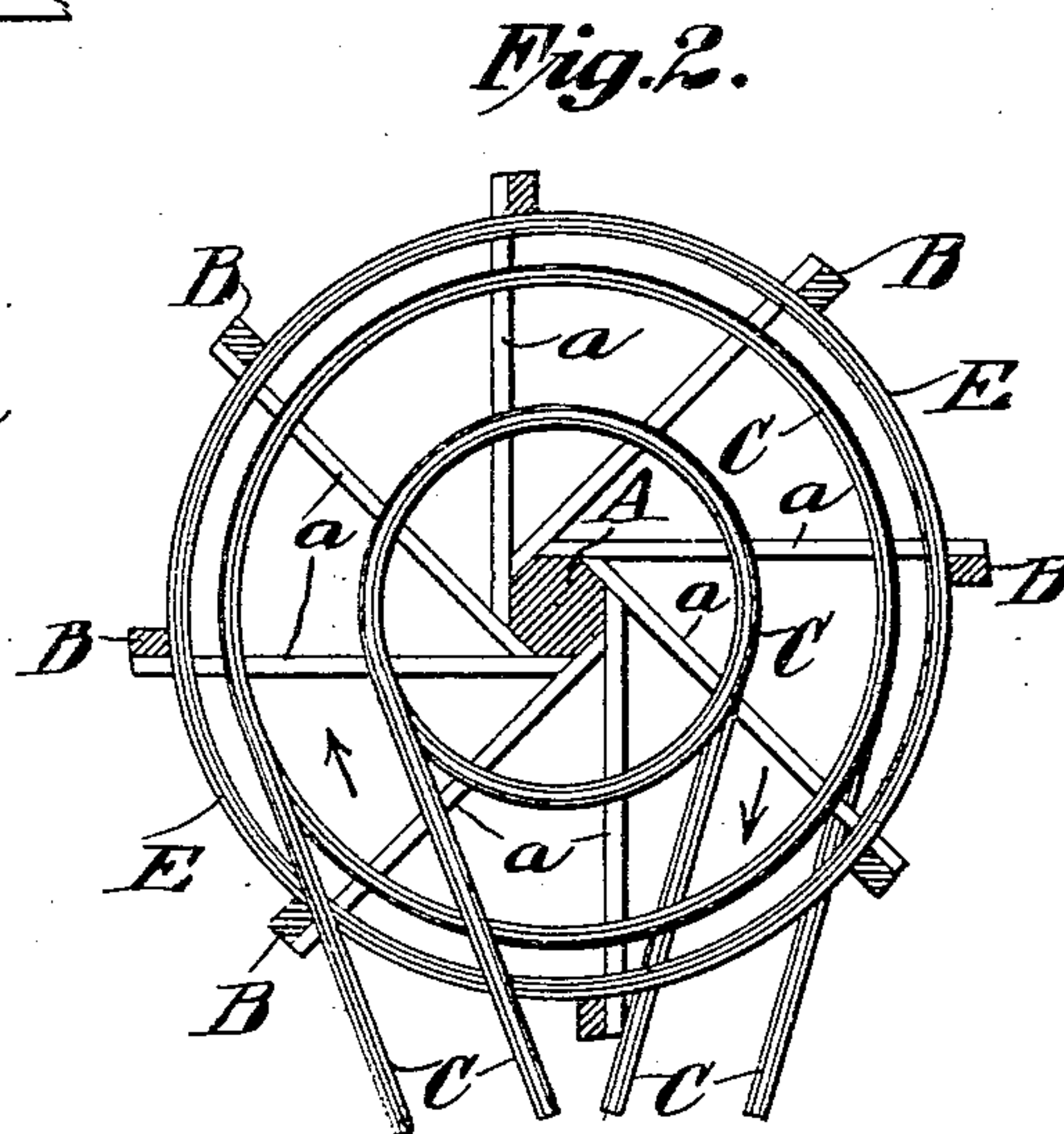
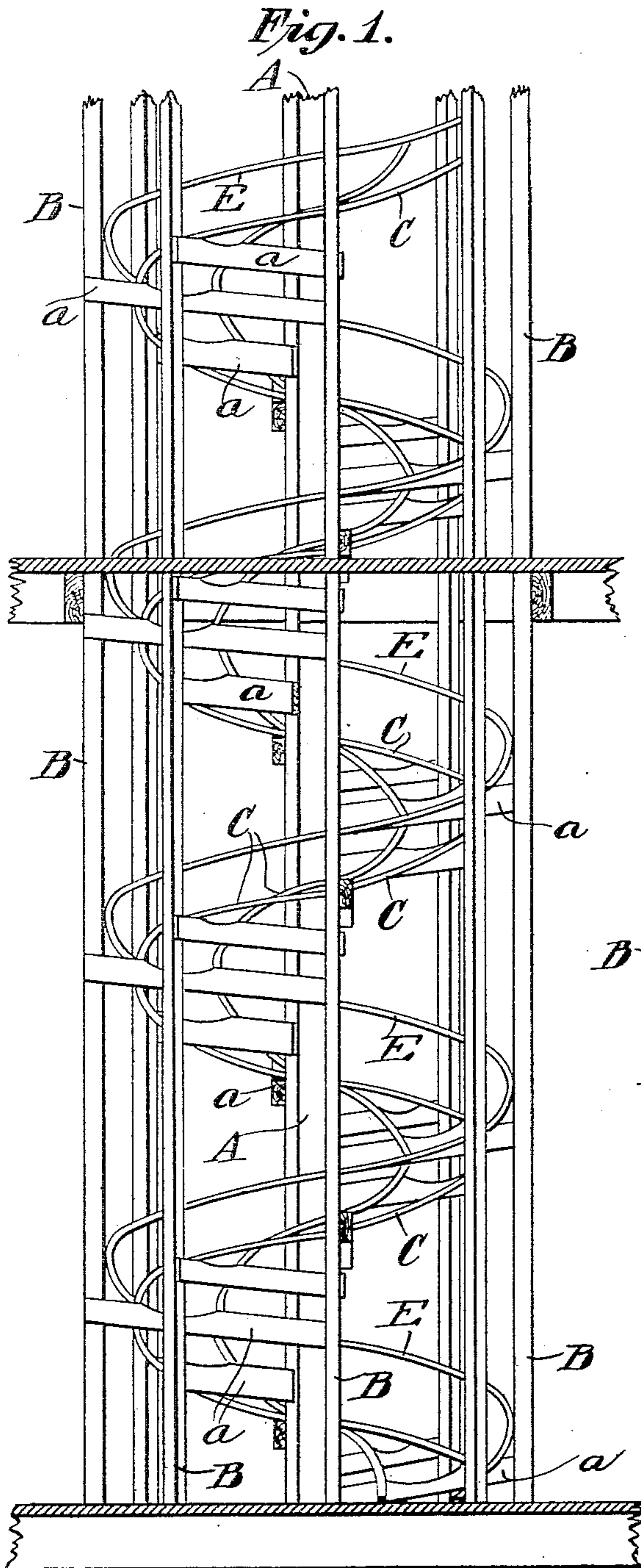


No. 745,985.

PATENTED DEC. 8, 1903.

G. W. ALLEN.
SPIRAL BARREL CHUTE.
APPLICATION FILED MAY 19, 1903.

NO MODEL.



Witnesses
S. M. Hutchinson
S. M. Hutchinson

George W. Allen Inventor

By his Attorney
W. P. Preble Jr.

UNITED STATES PATENT OFFICE.

GEORGE W. ALLEN, OF NEW YORK, N. Y.

SPIRAL BARREL-CHUTE.

SPECIFICATION forming part of Letters Patent No. 745,985, dated December 8, 1903.

Application filed May 19, 1903. Serial No. 157,841. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ALLEN, a citizen of the United States, and a resident of Richmond borough, New York city, and State of New York, have invented certain new and useful Improvements in Spiral Barrel-Chutes, of which the following is a specification.

The object of my invention is to provide a chute by which barrels, boxes, bags, and similar articles may be carried by their own weight, through the action of gravity, from one elevation to another without any substantial increase in speed, the action of gravity being so counteracted during the fall that the barrel or other article dropping through the chute is received gently at the lower elevation, and thereby without any danger of injury to the package or its contents.

In the accompanying drawings I have shown my invention as applied to a factory or other building and arranged to receive barrels and other large articles on the outer track of the chute and to receive bags or other small articles on an inner track. (Not shown.)

Figure 1 is a side elevation. Fig. 2 is a horizontal section.

Same letters indicate similar parts in the different drawings.

The chute is arranged spirally around the center post A, preferably octagonal in cross-section, from which the braces *a a* radiate to the supporting-posts B B. Upon these braces are mounted the spiral track-rails C C. The track-rails C C constitute the barrel-track and are set far enough apart to let the bulge of the barrel when lying on its side rest easily between them. To prevent any possibility of the barrel jumping the track, the guard-rail E is provided, the same being secured to the posts B B and following the track a few inches higher than the outer rail.

For clearness the drawings show the chute broken off above the second floor; but it is understood that my spiral chute is intended

for buildings which may have a large number of floors and may also be used for outside work in connection with any engineering or building enterprise where it is desirable to lower barrels or other articles from a height to a lower level without injury.

The pitch of the track-rails may vary somewhat, according to the character of the articles to be dropped through the chute; but I have found that when the pitch of the track and the difference in the height of the inner and outer rail are properly proportioned to the size and weight of the article to be conveyed by the chute the centrifugal force will sufficiently retard the action of gravity to keep the motion of the falling body constant. All that is necessary, therefore, to do in using this chute is to push or roll the barrel or other article into the chute at the entrance of any floor or landing, and it will then descend at a fixed speed through the chute, turning around the central post until it reaches the outlet, where it will be deposited without having had its speed increased to any injurious extent.

On the barrel-track the barrel will revolve slowly in its descent in addition to sliding.

I claim—

A spiral chute for barrels and other articles which consists of a pair of rails spirally set around a fixed center and with an open space between the rails sufficient to receive the bulge of the barrel and so arranged that the centrifugal force generated by turning around said center prevents undue acceleration by the action of gravity in the fall of objects dropping through said chute whereby objects received at any level are delivered by said chute at all desired lower levels at a uniform speed.

G. W. ALLEN.

Witnesses:

W. P. PREBLE, Jr.,

H. M. HUTCHINGS.