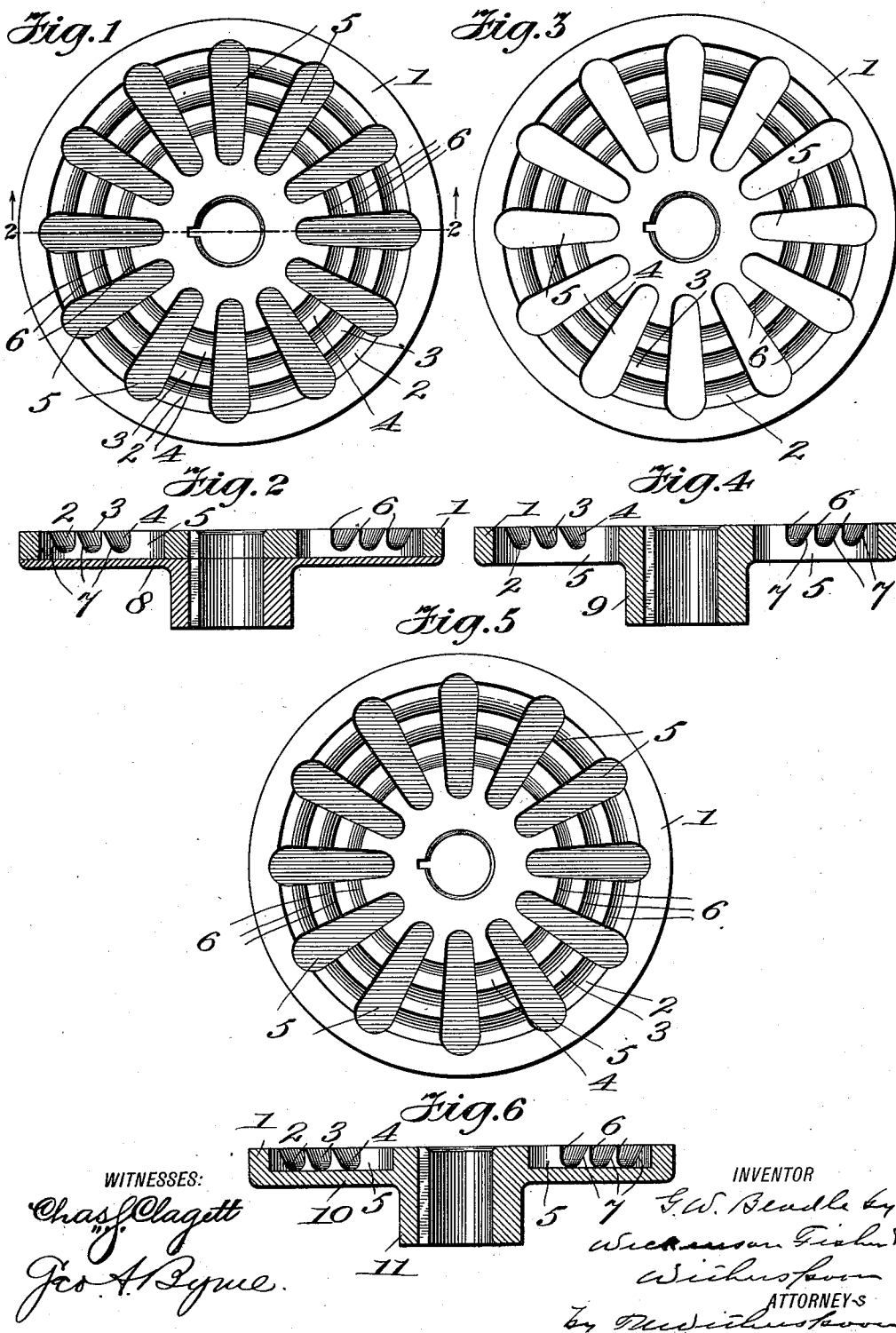


G. W. BEADLE.
SPINNING DISK FOR CRIMPING MACHINES.
APPLICATION FILED SEPT. 30, 1910.

1,010,215.

Patented Nov. 28, 1911.



UNITED STATES PATENT OFFICE.

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SPINNING-DISK FOR CRIMPING-MACHINES.

1,010,215.

Specification of Letters Patent.

Patented Nov. 28, 1911.

Application filed September 30, 1910. Serial No. 584,757.

To all whom it may concern:

Be it known that I, GEORGE W. BEADLE, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Spinning-Disks for Crimping-Machines; and I do 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 disks for spinning in or crimping the edges of cartons made of paper or like material, and has for its object to produce a disk of this nature which will not only crimp the edges of paper vessels, but will also upset or break down the same prior to the spinning operation as will appear more fully hereinbelow.

Disks of this nature may be used in a variety of machines but are especially adapted for use in connection with machines such as those disclosed in my former application No. 564,602, filed June 2nd, 1910, and entitled "Crimping-machines for cartons."

To these ends the invention consists in the novel details of construction more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals of reference refer to like parts in all of the views, Figure 1 is a plan view of a spinning disk made in accordance with my invention. Fig. 2 is a sectional view of the same taken on the line 2—2 of Fig. 1; Fig. 3 is a plan view of a slightly modified form of disk; Fig. 4 is a sectional view of the construction shown in Fig. 3; Fig. 5 represents a still further modified form of the invention, and Fig. 6 is a sectional view of the form shown in Fig. 5.

In the application above mentioned disks are disclosed in which a plurality of concentric spinning grooves are employed, the different grooves being intended to accommodate different sizes of cartons. It has been found, however, in the actual use of this machine that a continuous concentric groove does not perform the work required of it in a manner as satisfactorily as could be desired, and it has been further found that if the edge of the carton is first broken down or forced in at different points along its circumference so as to give it something

like a corrugated appearance, the subsequent spinning operation will result in a greatly improved job. Therefore in the disks I now to be described, I retain the concentric spinning grooves 2, 3 and 4, but I interrupt said grooves at intervals by the radial slots or depressions 5, as shown. The result of this construction is that when the disk 1 is forced longitudinally of the axis of the carton and against its edge prior to the spinning operation, the edges 6 formed by the radial slots 5 crossing the grooves 2, 3 and 4 will break down or force in the edges of the carton at intervals. It further follows that later when the spinning operation begins, these broken down edges of the carton will lend themselves more easily to being folded over and spun into shape than would be the case if the material were not previously broken down.

In addition to the above construction the spinning grooves are also in this invention inclined toward the axis of the disk, as clearly shown in Figs. 2, 4 and 6, so as to form the beveled faces 7 on the outer wall of each of the grooves. These inclined faces 7 further serve to aid in folding in or rolling in the extreme outer edge of the carton, so that the subsequent spinning operation produces an exceedingly satisfactory result.

8 represents a back plate which is secured to the disk 1 and closes the radial slots 5.

The construction shown in Figs. 3 and 4, is similar to that in Figs. 1 and 2, except the back plate 8 is omitted from these figures and the hub 9 of the disk is integral with the disk itself.

The form shown in Figs. 5 and 6 is likewise similar to the form shown in Figs. 1 and 2, but the back plate 10, disk 1 and hub 11, are integral as shown.

What I claim is:

1. A spinning disk for carton crimping machines having a plurality of spinning grooves adapted to crimp the edge of the carton into the desired shape; and means associated with said grooves for breaking down the material of the carton prior to the spinning operation comprising a plurality of radially arranged slots crossing said grooves, substantially as described.

2. A spinning disk for carton crimping machines having a plurality of concentric spinning grooves adapted to crimp the edge of the carton into the desired shape; and a

plurality of radially arranged slots crossing said grooves, and forming abrupt shoulders on the walls of said grooves, substantially as described.

- 5 3. A spinning disk for carton crimping machines provided with a plurality of spinning grooves having an outer wall inclined to the axis of the disk; and a plurality of radial slots crossing said grooves forming
10 abrupt shoulders with the walls of the same

and adapted to break down the material prior to the spinning operation, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

GEORGE W. BEADLE.

Witnesses:

J. H. GEWECKE,

J. HOUGHTON.

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