

G. A. BRUHN.
STOP MECHANISM FOR REGISTERS
APPLICATION FILED DEC. 3, 1920.

1,382,467

Patented June 21, 1921.

Fig.1.

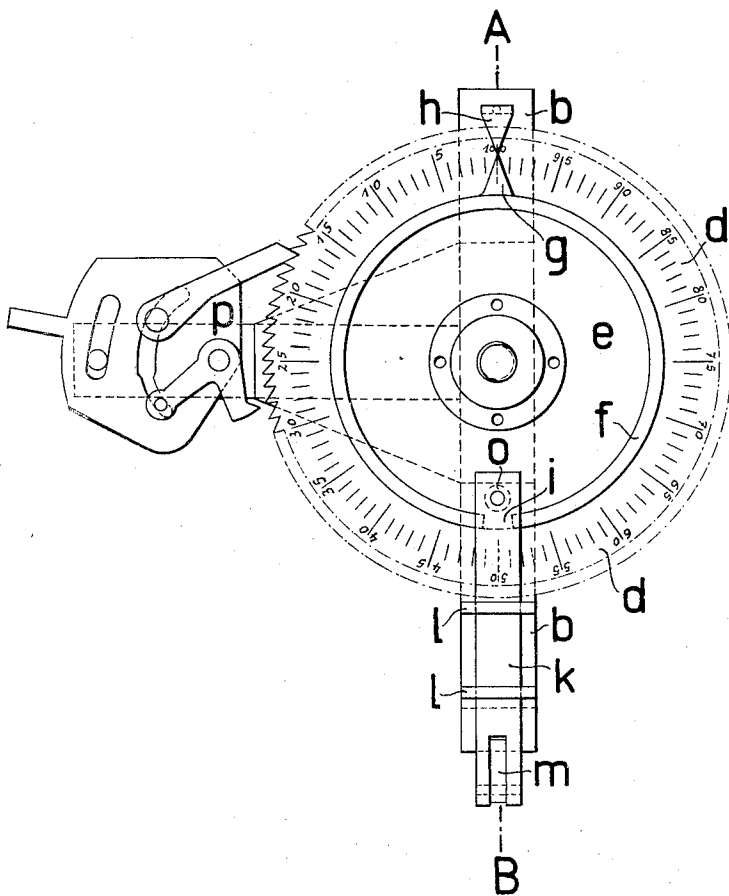
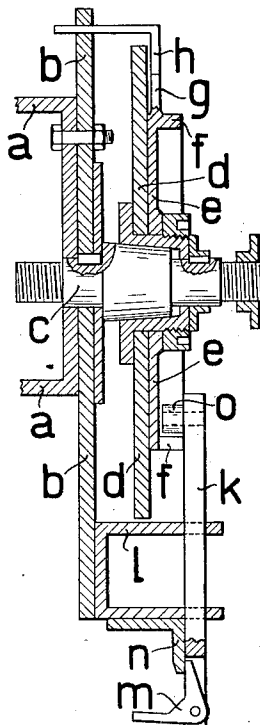


Fig.2.



Inventor
Gustav A. Bruhn
By *K. H. H. H.*
Att'y

UNITED STATES PATENT OFFICE.

GUSTAV A. BRUHN, OF HARBURG-ON-THE-ELBE, GERMANY, ASSIGNOR TO FRIED.
KRUPP AKTIENGESSELLSCHAFT, OF ESSEN-ON-THE-RUHR, GERMANY.

STOP MECHANISM FOR REGISTERS.

1,382,467.

Specification of Letters Patent. Patented June 21, 1921.

Application filed December 3, 1920. Serial No. 428,113.

To all whom it may concern:

Be it known that I, Dr. GUSTAV A. BRUHN, residing at Harburg-on-the-Elbe, Germany, a citizen of the German Republic, have invented a certain new and useful Improvement in Stop Mechanism for Registers, (for which I have filed an application in Germany, Oct. 30, 1917,) of which the following is a specification.

This invention relates to a stop mechanism for registers which is brought to a standstill when a fixed number of weighings have been carried out. This is particularly necessary when filling receptacles with the treated material, in order to prevent them from being filled to excess or overloaded.

The invention consists in adapting to an apparatus of this kind a counting or stopping apparatus, which can be set to a previously determined number of weighings.

Such apparatus, in which adjustable figure dials are set in motion by means of a ratchet mechanism and when the number for which the apparatus has been set is reached a lever which throws the mechanism out of operation passes through a gap in the figure dial and brings the whole machine to a standstill, are already known in various forms.

The present invention differs from those appliances of the same kind hitherto known by the simplicity of its entire construction and also of its several parts, the present apparatus consisting in the main of only a number or figure dial, a disk with a beaded edge and a stopping pawl or a stopping lever which is suspended from and slides over this edge. In the edge is cut a gap into which the stopping lever drops, as soon as the number of weighings for which the apparatus has been set, have been carried out.

The number of weighings at the particular time can also be ascertained at any time from this figure disk.

The invention will be further described with reference to the accompanying drawings which show an example of construction of the invention.

Figure 1 is a front elevation and

Fig. 2 is a section on the line A—B.

To an angle piece *a* which is mounted on the main apparatus, is affixed a carrier *b*, to which is connected a spindle *c*, on which spindle *c* is mounted to rotate a toothed disk *d*, the number of teeth on which can be

ascertained and read off on a series of scale divisions and numbers. In front of this disk *d* is placed another rotating disk *e*, which has a flanged edge *f*. On this flange is mounted a pointer *g*, to which a pointer *h* mounted on the carrier *b* corresponds. The pointer *g* has opposite it a gap *i*.

The connection with the stopping lever of the driving mechanism of the main apparatus is effected by a locking member *k*, which slides easily in a guide *l* fixed to the carrier *b*. On the lower part of the locking member *k* there is mounted a locking pawl *m*, which leads to the stopping lever and which, while the apparatus is in action, is held in its raised position by a stop or a lug *n* as shown in Fig. 2.

On the upper part of the locking member *k* is mounted a roller *o*, which runs on the flanged edge *f* of the disk *e* and as soon as it reaches the gap *i* in this disk, can drop through it. Then, as will be hereinafter described, the locking member *k* drops down.

The two disks *d* and *e* which are adjustable relatively to the carrier *b* and to each other, can be connected together by appliances of any desired kind. It is essential that after they have been relatively adjusted they shall admit of being rotated together about the spindle *c*.

This rotation is effected from the driving mechanism of the main apparatus through any convenient gearing.

In the present case a so-called anchor catch *p* is provided which moves up and down in the well known way moving the disks *d* and *e* one tooth forward at the same time but preventing them from moving backward. When the toothed disk *d* is being set, the catching action can be released in the well known way.

The method of operating the apparatus is as follows:

After releasing the catch of the disks the zero point of the disk *d* is brought up to the pointer *h*. Then the disk *e* in the flange *f* of which the pawl *k* with its roller *o* is mounted, is rotated on the disk *d* until the pointer *g* is opposite the desired number of the disk *d* which the entire apparatus is to work to. The two disks are then locked together, the anchor catch *p* engaged and the whole apparatus set in motion.

As soon as the pointer *g* is opposite the pointer *h*, the gap *i* is located at its lowest

point as already above mentioned. The roller *o* then slides through the gap *i* and the locking member *k* drops down with it. At the same time the locking pawl *m* slides
 5 off the lug *n*, which latter then stops the whole apparatus.

It is obvious that a so-called adding mechanism of any kind may be combined with the present apparatus and the total amount
 10 weighed out by the whole apparatus may be checked by it.

I claim:

1. An apparatus of the class described comprising a disk, means for intermittently
 15 moving said disk, a peripherally flanged disk adapted to rotate with and being adjustable relatively to said first disk, the flange of said second disk being provided with a cut-away portion, a locking member,
 20 means on said locking member coöperating with the peripheral flange of said second disk for retaining the locking member in its inoperative position, a gap in said flange permitting the locking member to move to
 25 operative position.

2. An apparatus of the class described comprising a disk, the face of said disk being provided with graduations, means for intermittently moving said graduated disk,
 30 a second disk coupled with said graduated disk for movement therewith but capable of being adjusted relatively thereto, said second disk being provided with a peripheral flange, said flange being cut-away at one portion
 35 thereof, a locking member slidably support-

ed adjacent said second disk, means carried by said locking member and bearing on said peripheral flange for retaining the locking member in its inoperative position, a locking
 40 pawl carried by said locking member, the cutaway portion within the peripheral flange permitting the locking member to move to its operative position to release said pawl.

3. An apparatus of the class described comprising a disk formed with a series of
 45 peripheral teeth, means for rotating said disk, means for disconnecting said rotating means, a second disk provided with a peripheral flange, said flange being provided with a cut-away portion, said disk being
 50 coupled to said first disk for rotation therewith and adjustable relatively to said first disk, a locking member slidably supported adjacent said disks, a roller carried by one
 55 end of said locking member and adapted to bear against said peripheral flange to support said locking member in its inoperative position, a locking pawl carried by the other
 60 end of said locking lever, said roller adapted upon registering with the cut-away portion of the flange to allow the locking member to move to its operative position, to release said locking pawl.

The foregoing specification signed at Harburg, Germany.

DR. G. A. BRUHN.

In presence of—

HEINRICH NAGEL,
 MINNA WENZEL.