

No. 726,056.

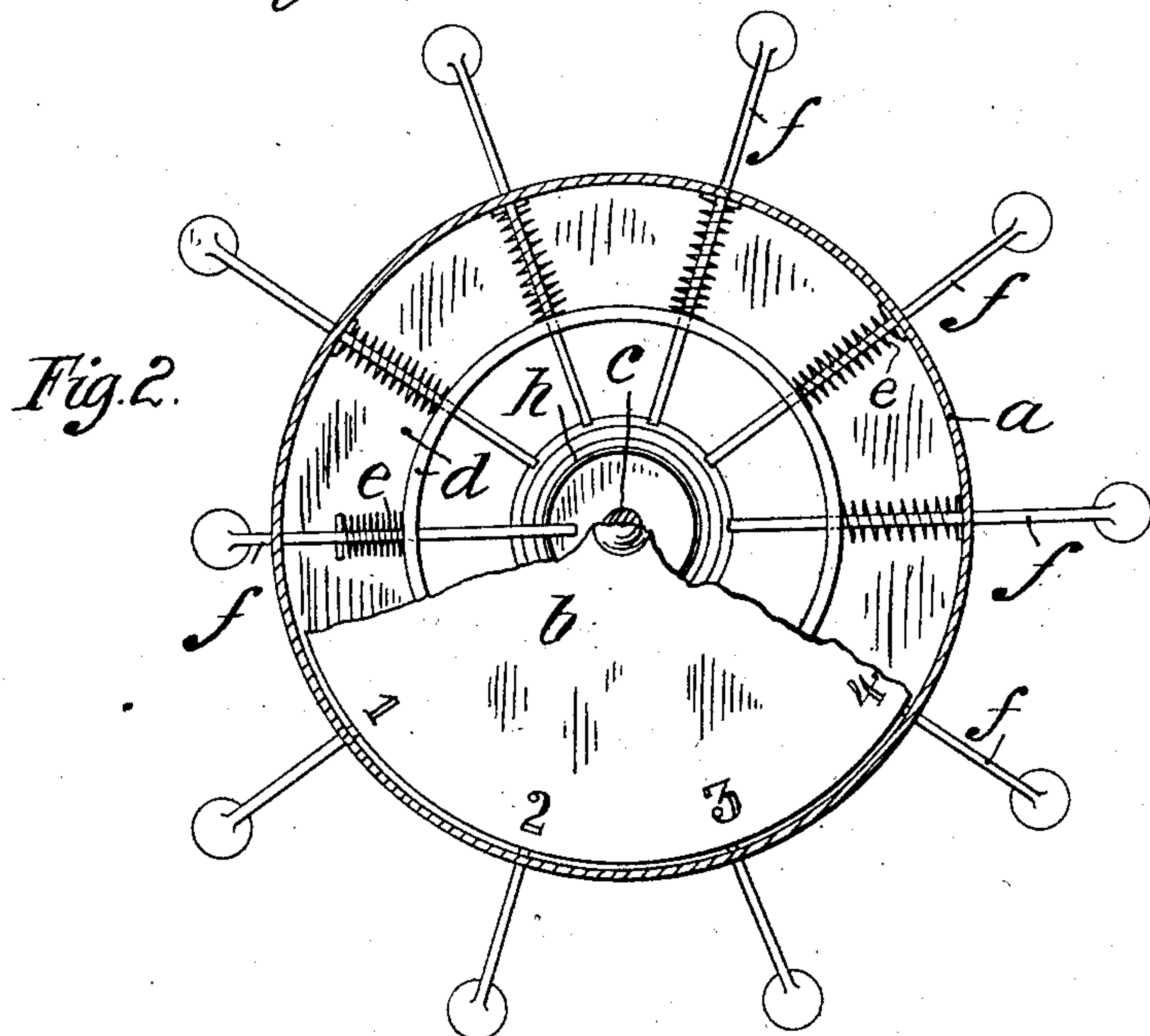
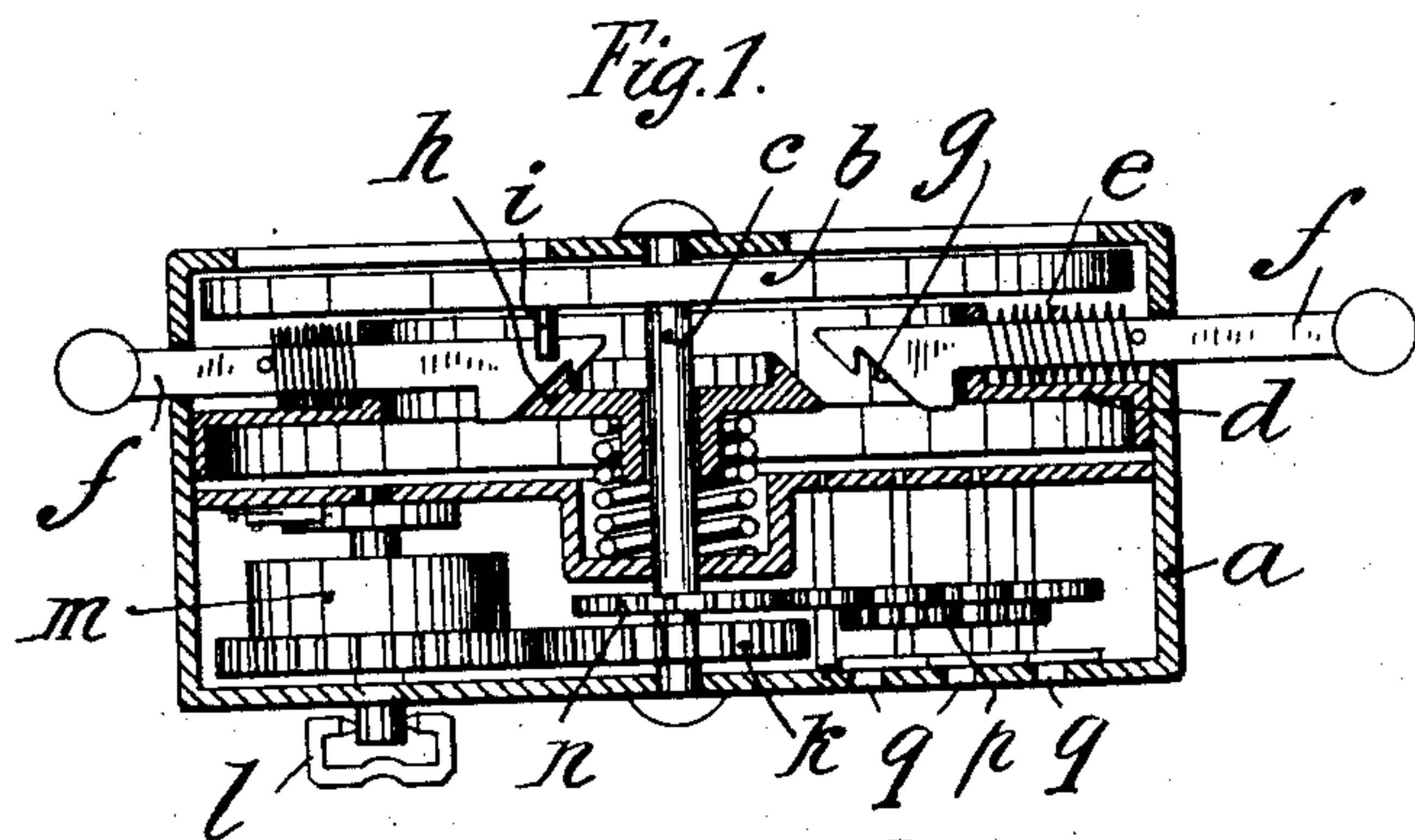
PATENTED APR. 21, 1903.

S. HARTMANN.  
ADDING MACHINE.

APPLICATION FILED JULY 17, 1902.

2 SHEETS—SHEET 1.

NO MODEL.



Witnesses.  
Hans Brenner  
Willi Kasper.

Inventor.  
Sophus Hartmann  
per Jerome Sachs  
Attorneys

No. 726,056.

PATENTED APR. 21, 1903.

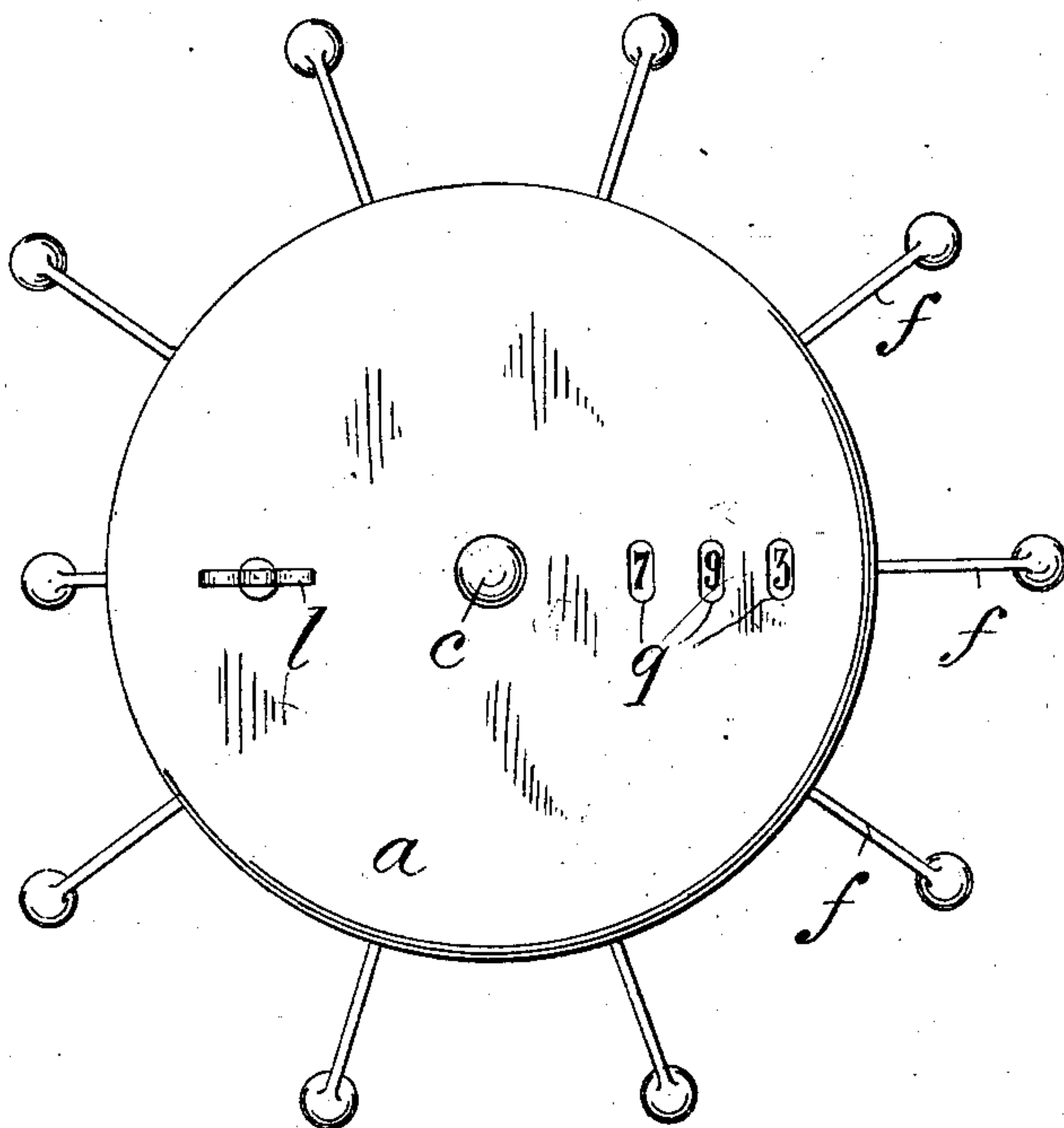
S. HARTMANN.  
ADDING MACHINE.

APPLICATION FILED JULY 17, 1902.

NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 3*



*Witnesses.*  
*Hans Brenner*  
*Willi Kasper*

*Inventor.*  
*Sophus Hartmann*  
*per* *Georg Jach*  
*Attorneys.*



# UNITED STATES PATENT OFFICE.

SOPHUS HARTMANN, OF BERLIN, GERMANY.

## ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 726,056, dated April 21, 1903.

Application filed July 17, 1902. Serial No. 115,945. (No model.)

*To all whom it may concern:*

Be it known that I, SOPHUS HARTMANN, technician, a subject of the Emperor of Germany, residing at 1 Trebbinerstrasse, Berlin, Germany, have invented new and useful Improvements in Adding-Machines, of which the following is a specification.

My invention relates to adding-machines, and particularly to such machines for summing up units.

For making my invention more clearly understood I will now proceed to describe the same with reference to the accompanying sheet of drawings, in which—

Figure 1 is a vertical section of my adding-machine, and Fig. 2 a cross-section thereof on the line A B of Fig. 1, the upper portion being partly broken away. Fig. 3 is a view of the under side of my adding-machine.

In the construction of my adding-machine I use a casing *a*, which has a circular disk *b* rotatably mounted therein on a vertical shaft *c*. The said disk bears the numerals "0" to "9" near its edge equidistant from each other and is provided with a stop or pin *i* on its underside just below the numeral "0." A toothed wheel *k* on the shaft *c* and a toothed spring-box *m* of the usual construction provide means for rotating the disk *b*, the shaft of said spring-box having a thumb-piece *l* and a pawl and ratchet, as shown. A conically-shaped ring *h* is arranged so as to slide freely on said shaft *c* and is supported by means of a spiral spring, as shown. In the vertical flange of a ring-shaped plate *d*, extending within said casing *a* from the wall thereof, and in corresponding openings of the said wall ten slides *f* are radially guided and are provided with springs *e*, which act against cross-pins in said slides, so as to press the said slides outwardly out of the way of the said stop or pin *i*. The slides *f*, which radially extend out of the casing, according to the division given by the numerals "0" to "9," have the form of blades and have a toothed or catch-formed inner end and an oblique downward projection *g* behind said catch and are operated as follows: One of said slides being pushed inward and its end caught by the upwardly spring-pressed

ring *h*, above referred to, the pin *i* stops the rotation of the disk *b* by striking against this caught slide. As this latter slide is now standing in line with the numeral "0," it will be clearly understood that for turning about the disk *b* through an arc corresponding to one of the numerals "1" to "9"—for instance, to "6"—it is only necessary to push inwardly the slide which is below said numeral "6," which slide will thereby with its downward projection *g* act against the yielding ring *h*, thus pressing same downward and liberating the before-mentioned caught slide. This latter recedes, and the freed pin *i* allows the disk to turn about until the pin strikes the other slide standing before in line with the numeral "6" and now locked in position by the spring-actuated ring *h*. Now it will be clear that by connecting the said disk *b* with a suitable counting device *p* by means of a toothed wheel *n*, fastened on axle *c*, an adding-machine will be obtained which is operated by simply pressing successively on the slides which stand just in line with the numerals to be summed up. The result thus obtained may be seen within the openings *q* in the bottom of casing *a*, which show the numeral-disks of the said counting device.

Having now described my invention, I claim—

In an adding-machine, the combination of a casing, a vertical axle in the center thereof, a disk on said axle bearing the numerals "0" to "9" equidistant from each other, an upwardly-spring-pressed catch-ring on said axle, ten outwardly-spring-pressed slides radially guided corresponding to the arrangement of the numerals, a tooth at the inner end of each of said slides adapted to be caught by said ring, an oblique projection on each of said slides adapted to force said ring down, a spring-box in gear with said axle and a counting device likewise in gear therewith, substantially as described.

SOPHUS HARTMANN.

Witnesses:

WOLDEMAR HAUPT,  
HENRY HASPER.