

No. 670,075.

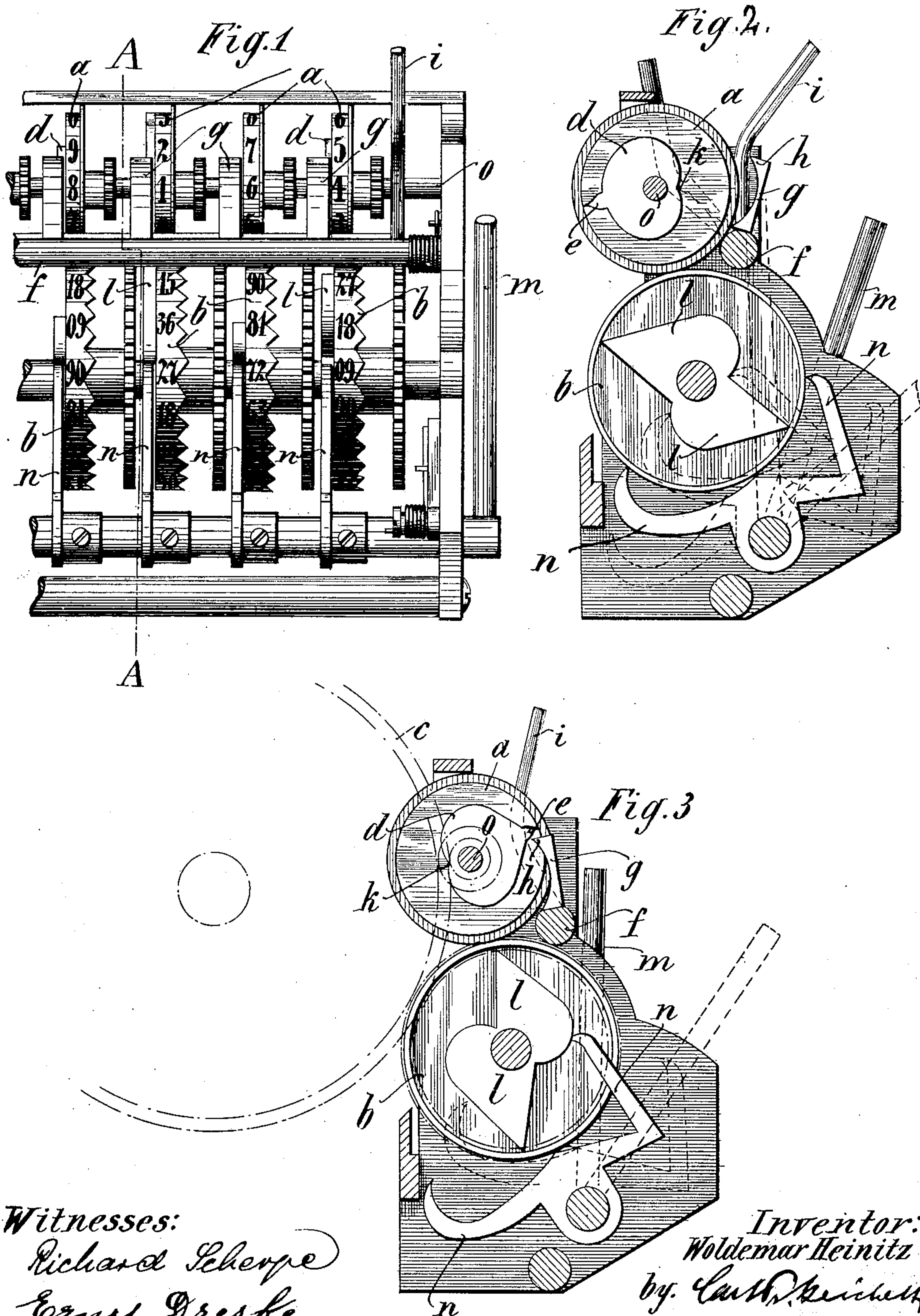
Patented Mar. 19, 1901.

W. HEINITZ.

RETURNING DEVICE FOR CALCULATING MACHINES.

(Application filed Feb. 7, 1900.)

(No Model.)



Witnesses:

Richard Scherpe
Ernst Dreske

Inventor:
Woldemar Heinitz

by *Carl H. Krueger*
Attorney.

UNITED STATES PATENT OFFICE.

WOLDEMAR HEINITZ, OF DRESDEN, GERMANY.

RETURNING DEVICE FOR CALCULATING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 670,075, dated March 19, 1901.

Application filed February 7, 1900. Serial No. 4,372. (No model.)

To all whom it may concern:

Be it known that I, WOLDEMAR HEINITZ, a citizen of the Kingdom of Saxony, and a resident of Dresden, Saxony, Germany, (whose post-office address is Dresden A, Bergmannstrasse No. 23,) have invented certain new and useful Improvements in Returning Devices for Calculating-Machines, of which the following is a specification.

10 The object of my invention is a returning device for the register or number wheels of calculating-machines of the duplex type, the returning to zero of the register-wheels being effected by a single lever motion.

15 The eccentric disks are actuated by cogs, causing the disks to turn until the part nearest to the turning axle is reached, the register-wheels in this position presenting the number "0" beneath the sight-slots.

20 The accompanying drawings show my invention applied to a calculating-machine of the duplex type provided with two rows of register-wheels.

25 Figure 1 is a front view of a part of such a machine. Fig. 2 is a cut through same following the line A A, the register-wheels being returned to zero. Fig. 3 shows the same parts in another position, the cogs just beginning to effect the returning of the register-wheels.

30 The register-wheels *a* and *b* of a duplex calculating-machine are actuated by the gear-wheel *c*, Fig. 3, possessing teeth to be thrown in and out of gear. An eccentric disk *d* is fixed to the register-wheel *a*, Fig. 2, said disk being shaped like a heart and ending in a protruding nose *e*, actuating the well-known teens-gearing device.

35 In front of the wheels *a* pawls *g*, ending in noses *h*, are fastened to a shaft *f*, actuated by the hand-lever *i*. On turning the shaft and bringing the pawls in contact with the eccentric disks *d* the latter are compelled by the peculiarly-shaped noses *h* to turn around their axle until the nose has reached the point *k* on the circumference of the disk nearest to the

axle, the circumference here being formed by two converging curves. The lever *i* and the pawls *g* are brought back into position by aid of a spring.

50 The device described above has already been made use of in some of the older types of calculating-machines. A similar arrangement effecting the return of the second registering device of a duplex machine forms the subject of this invention. 55

The second registering device of a duplex machine consists of barrels *b*, being likewise actuated by aid of the gearing-wheel *c*. Their axle bears an eccentric disk composed of two halves of a heart-shaped disk, these two halves pointing to opposite directions. By turning a lever *m* one end or the other of a fang *n* below the barrel may be brought into contact with the eccentric disk *l*. The peculiar shape of both the eccentric and the fang then causes a turning of the former until the lowest point near the axle is reached. This position corresponds with the appearing of the number "0" beneath the sight-slot. 65 70

Having thus described the nature of my invention, what I claim as new is—

1. In a returning device for calculating-machines the combination with the register-wheels of eccentric disks having the shape of two halves of a heart pointing in opposite directions, substantially as shown and described. 75

2. In a returning device for calculating-machines the combination with the register-wheels and eccentric disks having the shape of two halves of a heart pointing in opposite directions, of a shaft bearing fangs adapted to glide on the circumference of said eccentrics, substantially as shown and described. 80 85

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

WOLDEMAR HEINITZ.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.