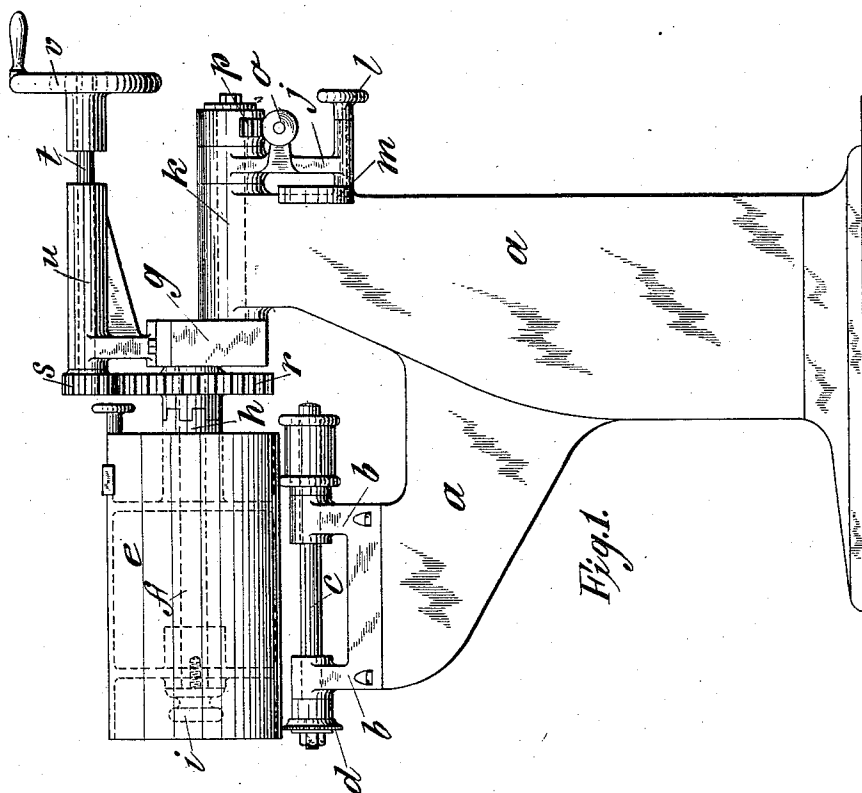
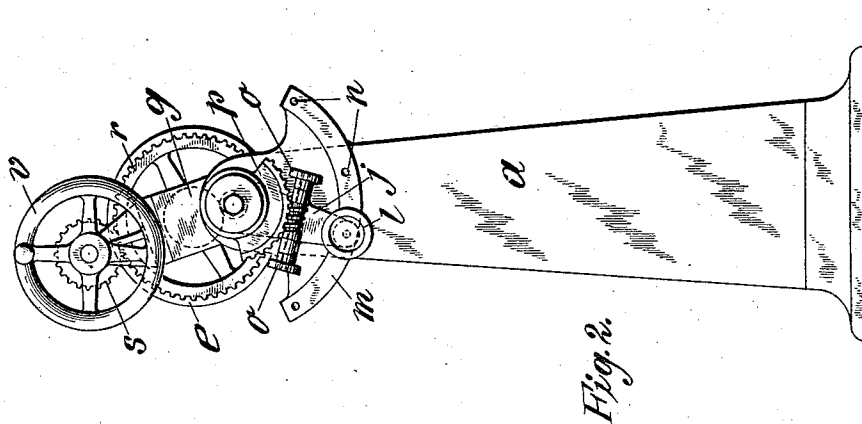


H. WINTER.
MACHINE FOR TRIMMING CURVED PLATES.
APPLICATION FILED JAN. 24, 1906.

1,059,805.

Patented Apr. 22, 1913.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR TRIMMING CURVED PLATES.

1,059,805.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed January 24, 1906. Serial No. 297,546.

To all whom it may concern:

Be it known that I, HERMANN WINTER, of the borough of Brooklyn of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Machines for Trimming Curved Plates, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

In machines for trimming the curved edges of plates, such as electrotypes plates and stereotype plates, it is desirable that some means be provided whereby the machine may be readily adapted to trim plates of different sizes, that is, plates having different diameters. As these machines are ordinarily constructed, the plate to be trimmed is received upon a cylinder where it is fastened and held during the cutting operation.

In such machines it is necessary to provide different sized cylinders for different sized plates and it is the object of this invention to provide a machine of this type in which the different sized cylinders shall be adapted to be mounted one at a time upon a single bearing which shall be movable in respect to the cutter to bring the different sized plates into operative relation therewith.

It is also the object of this invention to provide means whereby the adjustment of the machine for different sized plates can be quickly made and one in which this adjustment, which is preferably fixed for plates of standard sizes, may be varied within certain limits to take up wear upon the cutter.

In the drawings a machine constituting a practical embodiment of the invention is illustrated and, Figure 1 is a view in front elevation of said machine, and Fig. 2 is a view in side elevation of the machine.

The machine may have a suitable base *a* in which are provided suitable bearings *b* for the shaft *c* of a rotary cutter *d*. One of the cylinders upon which the plates are received and held during the cutting operation is illustrated at *e*. It is preferably hollow and is mounted upon a shaft *f* which is journaled or carried in a bearing or support *g*. The latter is revolubly mounted in the base *a* and the shaft *f* is eccentric therein so that by revolving the bearing *g* in the base *a* the cylinder may be moved toward and from the cutter. For plates of different

sizes, different sized cylinders will be mounted upon the shaft *f*, and for this purpose each of the cylinders may be provided with a clutch member *h* to engage a corresponding clutch member upon the shaft *f*, a thumb screw *i* being provided in the end of the shaft *f* to secure the cylinders thereon. It will thus be obvious that any cylinder may be quickly removed from the machine and the cylinder of the particular size desired quickly mounted in its place.

The machine is preferably provided with cylinders for standard sized plates and means are provided to hold the cylinders in the proper positions with respect to the cutter *d* during the cutting operation. Such means may comprise an arm *j* secured to the journal *k* of the bearing *g* having a pin *l* slidable therein to engage a perforated segment *m* upon a fixed part such as the base *a*. The perforations *n* in the segment are in such positions as to bring the bearing *g* and shaft *f* into the proper positions with respect to the cutter *d* for the different sized cylinders *e*. As shown in the drawing, the arm *j* is not rigidly connected to the journal *k* but loosely embraces said journal and is made fast with respect thereto by means of a tangent screw *o* upon the arm operatively engaging a sector *p* secured to the journal. The function of the sector and screw is to vary from time to time the adjustment of the cylinders with respect to the cutter *d* which is rendered necessary by the wear upon the cutter and by the sharpening of the cutter from time to time.

The cylinder is rotated during the cutting operation through suitable means such as gears *r* and *s*, the former being mounted upon the shaft *f* and the latter being provided upon a shaft *t* journaled in a suitable bearing *u* upon the base *a*. The shaft *t* may be provided with suitable means for rotating the shaft *t*, such as a hand wheel *v*.

Various changes may be made in the embodiment of the invention shown and described herein without departing from the spirit of the invention.

I claim as my invention:—

1. In a machine for trimming curved plates, the combination of a cutter, an eccentrically mounted shaft adapted to receive a series of different sized plate holding cylinders one at a time, means to secure the shaft in several definite fixed positions

relative to the cutter which positions correspond respectively to the different sized plates, and means to move the shaft toward and from the cutter within small limits independently of said means.

2. In a machine for trimming curved plates the combination of a cutter, an angularly movable support carrying an eccentrically mounted shaft, a detachably secured plate holding means supported on the shaft and means to secure the support in any one of several definite positions.

3. In a machine for trimming curved plates, the combination of a cutter, an angularly movable support carrying an eccentrically mounted shaft, a plate holding means supported by the shaft, means to secure the angularly movable support in any one of several different positions relative the cutter and means embodied in the securing means to move the shaft toward and from the cutter within small limits.

4. In a machine for trimming curved plates, the combination of the cutter shaft and a shaft for supporting the plate holding means, plate holding means thereupon, means for causing rotation of the cutter and means for causing rotary movement of the plate holding means when on the shaft, a bearing movably mounted in the frame of the machine for one of the shafts, means extending between the bearing and frame and adapted to be connected to the frame to lock and hold the bearing in dif-

ferent positions and including means capable of imparting slight movement to the bearing independent of the connections on the frame.

5. In a machine for trimming curved sized cylinders, a sector secured to the carrier for mounting plate holding cylinders of different sizes, means for securing the cylinders eccentrically thereon for rotation one at a time, an arm secured to the carrier, a pin upon the arm, and a perforated segment upon a fixed part of the machine cooperating with the pin to hold the carrier and cutter in different positions for different sized cylinders.

6. In a machine for trimming curved sized cylinders, the combination of a cutter, a carrier for mounting plate holding cylinders of different sizes, means for securing the cylinders eccentrically thereon for rotation one at a time, an arm loosely held upon the carrier, a pin slidable in the arm, a perforated segment upon a fixed part of the machine cooperating with the pin to hold the carrier in different positions for different sized cylinders, a sector secured to the carrier, and a screw upon the arm for the purpose set forth.

This specification signed and witnessed this 18th day of January, 1906.

HERMANN WINTER.

Signed in the presence of—

J. LEWIS NATTER,

LUCIUS E. VARNEY.