A. BURGERT.

ADJUSTABLE BEARING FOR PRINTING MACHINE ROLLERS.

APPLICATION FILED MAY 31, 1913.

1,068,562. Patented July 29, 1913.

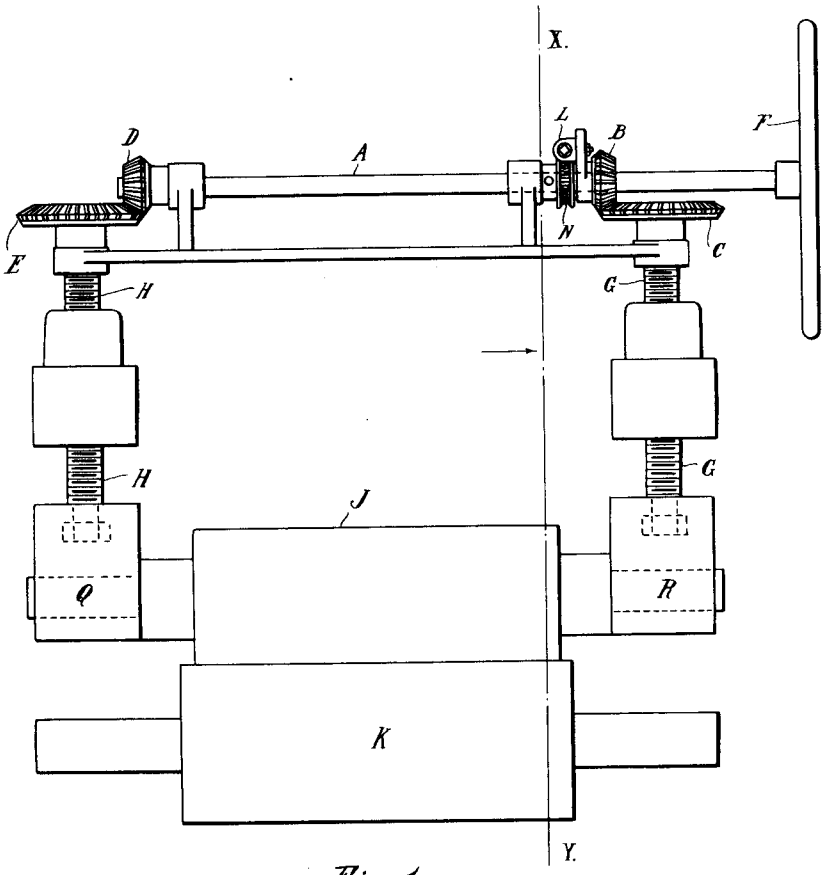

Fig:1.

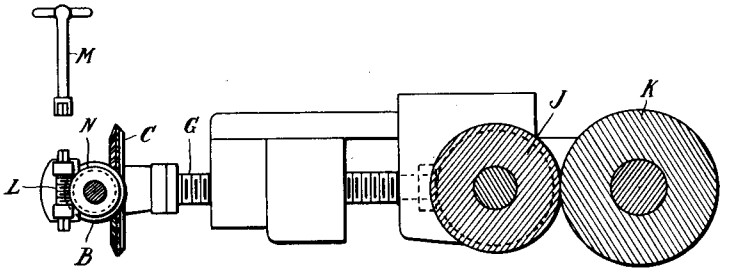

Fig:2.

Witnesses

Pearl Putnam

L. E. Barkley

Inventor

August Burgert

per Frank Ankleman

Attorney

UNITED STATES PATENT OFFICE.

AUGUST BURGERT, OF MÜLHAUSEN, GERMANY, ASSIGNOR TO ELSAESSISCHE MASCHINENBAU GESELLSCHAFT, OF MÜLHAUSEN, GERMANY, AND EDUARD MERTENS, OF FREIBURG, BREISGAU, GERMANY.

ADJUSTABLE BEARING FOR PRINTING-MACHINE ROLLERS.

1,068,562. Specification of Letters Patent. Patented July 29, 1913.

Application filed May 31, 1913. Serial No. 771,047.

To all whom it may concern:

Be it known that I, AUGUST BURGERT, chief engineer, a subject of the Emperor of Germany, residing at 2 Synagogenstrasse, Mülhausen Elsass, Germany, have invented a new and useful Improved Adjustable Bearing for Printing-Machine Rollers, of which the following is a specification.

In the operation of printing upon endless paper or fabric, especially in rotatory intaglio printing, with the application of elastic intermediate rollers, great difficulties are liable to occur when the pressure upon the two ends of the printing or the pressure cylinder respectively are not adjusted exactly to correspond, or when the elastic cover of the pressure cylinder does not press uniformly, or when the printing machine itself is not sufficiently fixed. In any of these cases, the paper or material is liable to form folds or to tear and the printing surface and the elastic pressure cylinder are liable to be damaged.

The object of the present invention is a double acting pressure regulating device which is devised to obviate the above mentioned drawbacks.

The drawing illustrates the invention as follows:—

Figure 1 shows a plan view of the apparatus. Fig. 2 is a section of Fig. 1 on the line X—Y of the printing machine as described in which the inking mechanism has been omitted because it does not form any part of the present invention.

In these drawings A indicates a shaft which is rotated by means of the wheel F. Upon the shaft A are secured the two cone wheels B and D. By the rotation of B and D, the wheels C and E are revolved upon their axles together with the screws G and H attached to them and by the turning of the latter, the journals Q and R of the pressure cylinder J are drawn nearer to the printing cylinder K or removed farther from them. The approach or the removal of Q and R takes place quite uniformly, if the printing machine and all its parts are mounted in the most exact manner and are in good condition. If this, however, is not the case, then the approach of Q and R being effected indirectly by turning the wheel F, will not be uniform. In order, notwithstanding this, to obtain a uniformity of this approach the cone wheel B is not keyed fast upon the shaft A but is placed loose upon it, and is so connected by means of the worm L with the fixed worm wheel N on the shaft A that it can easily be turned by means of the key M upon the shaft A with regard to the wheel D. By this adjustment of the wheel B the pressure for the bearing R can easily be adjusted independently of that for the bearing Q.

What I claim is:

1. In a rotary printing machine, duplex adjusting mechanism for the journals of the impression cylinder, comprising an adjusting shaft, a handwheel on said shaft, cone wheels on said shaft, a pair of screw spindles supported in the machine frame, each revolubly secured at one end to one bearing of the impression cylinder, a bevel wheel on the end of each screw spindle adapted to engage with the respective cone wheel; in combination with a worm gear rigidly attached to one cone wheel, and a worm wheel keyed on said adjusting shaft said mechanism so arranged that the said cone wheel while participating in the rotation of the adjusting shaft, can be independently rotated around said shaft by turning the worm gear; for the purpose of adjusting the one axle bearing independently of the other.

2. In a rotary printing machine, mechanism for combined and independent adjustment of the impression cylinder, journals Q, R comprising the handwheel F keyed on the shaft, the cone wheel D keyed on said shaft, the bevel wheel E meshing with said cone wheel, the spindle H secured to the journal Q and supported in the machine frame; in combination with the cone wheel B loose on the shaft A, the worm L fixed to the cone wheel B, the worm wheel N keyed on the shaft A and meshing with the worm

L, the bevel wheel C adapted to engage with the wheel B, the screw spindle G secured at one end to the wheel C and at the other end to the journal R; said worm L being adapted to be turned by the screw key M for the purpose of altering the position of the journal R relatively to the journal Q.

In testimony whereof I have signed my name to the specification in the presence of two subscribing witnesses.

AUGUST BURGERT.

Witnesses:
GEO. GIFFORD,
AMAND BRAUN.