No. 667,665. Patented Feb. 12, 1901.

C. BECKH.

INDICATOR FOR THICKNESS OF PAPER.

(Application filed Nov. 9, 1899.)

(No Model.) 2 Sheets—Sheet 1.

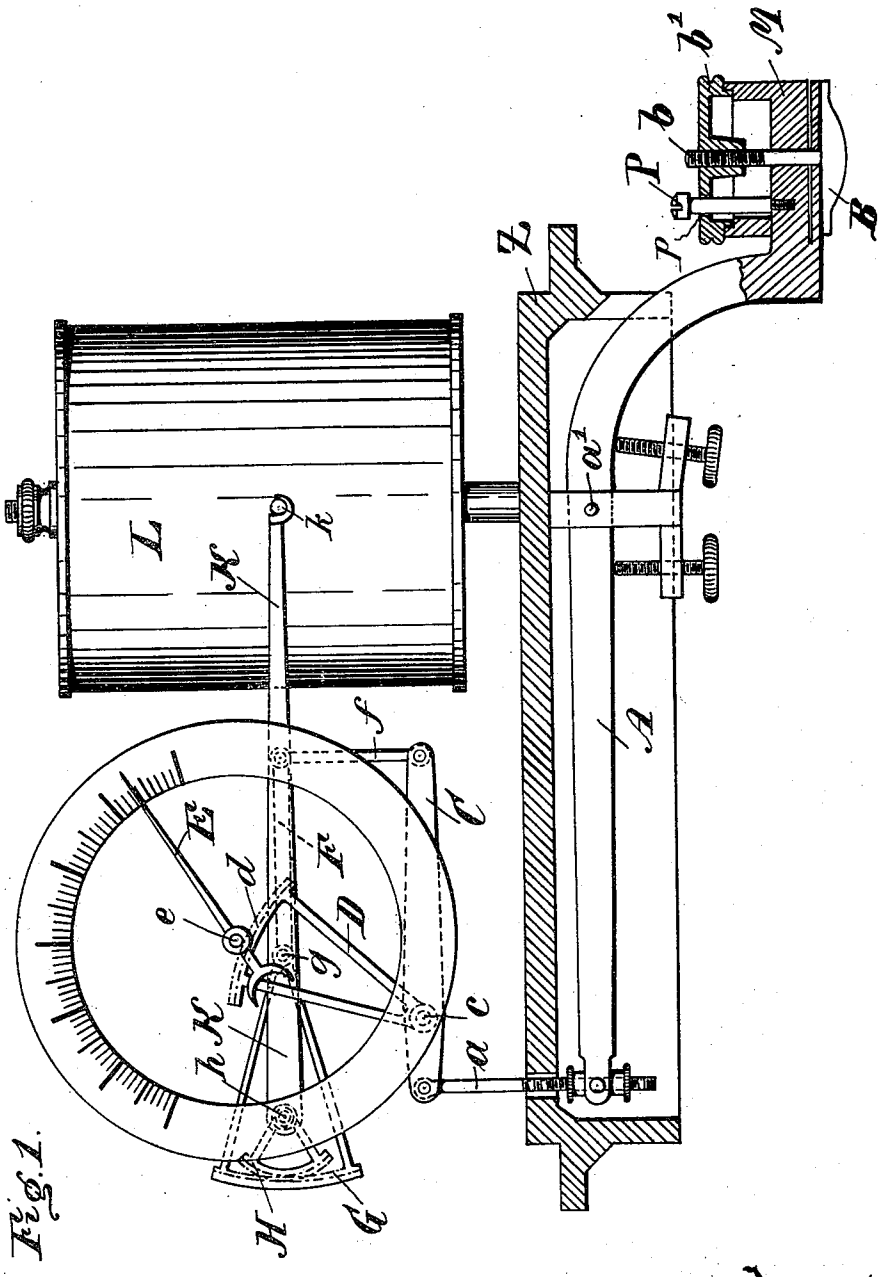


Fig. 1.

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Charles E. Smith

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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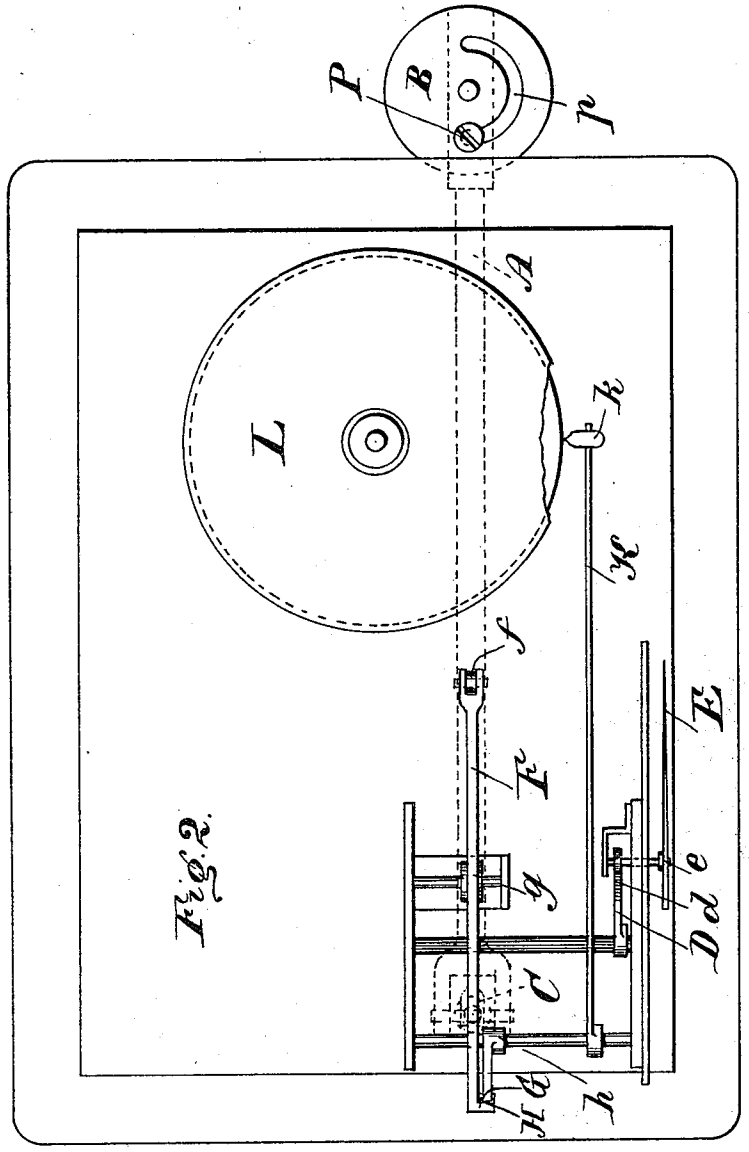


Fig. 2.

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UNITED STATES PATENT OFFICE.

CARL BECKH, OF TAURNDAU, GERMANY.

INDICATOR FOR THICKNESS OF PAPER.

SPECIFICATION forming part of Letters Patent No. 667,665, dated February 12, 1901.

Application filed November 9, 1899. Serial No. 736,328. (No model.)

To all whom it may concern:

Be it known that I, CARL BECKH, fabricans of papers, residing at Taurndau, in the Kingdom of Würtemberg, Germany, have invented new and useful Improvements in Indicators of the Thickness of Paper, (for which I received a model in Germany, No. 115,509, application for which was filed on April 29, 1899, B. 12,651/55,) of which the following is a specification.

My invention relates to that class of apparatus which serve to indicate the thickness of the paper which is produced on a paper-machine.

It consists in the combination of an indicator with a registering device and in certain improvements in detail, as hereinafter set forth.

Figure 1 is a side view, partly in section, of one form of device embodying my invention. Fig. 2 is a plan view of the same.

Z is the base-plate, which supports the controlling-lever A beneath it at the fulcrum *a'*. This lever is provided with a head M, carrying a knob or contact-piece B, which is adapted to rest with a slight pressure on the paper running from the machine over a roller or supporting-bar in a well-known way. The knob or contact-piece B is rendered adjustable by the screw-spindle *b* and the nut *b'*. The nut *b'* rests on the upper edge of the head M and may be turned for half a revolution in order to move the contact-piece farther from or nearer to the head M, according to the direction in which the nut *b'* is turned. The rotation of the nut *b'* is limited by a pin P, which is fixed to the head M and extends freely through a slot *p* in the nut *b'*. By an adjustment of the contact knob or piece B in the manner described the device may be set to indicate and record the variations of paper of different mean thicknesses, and the normal thickness of the paper will always be indicated at the same point on the index or indicator.

The controlling-lever A is connected by a link *a* to the lever C, fulcrumed at *c*. A sector D, having a series of teeth *d* and engaging the tooth-wheel *e*, is rigidly secured to the axis of the lever C. By these means the hand E on the axis of the tooth-wheel *e* is moved on its index. The lever C is likewise connected by the link *f* with the lever F, fulcrumed at *g* and provided with a toothed sector G. This sector G is provided with teeth which engage corresponding teeth on a sector H, fulcrumed at *h* and rigidly connected with the lever K. The lever K holds at its end a pencil *k*, which draws a curve on the rotating cylinder L or a sheet of paper put around it corresponding to the motion of the lever A.

By the device described above a diagram is obtained showing the varying thicknesses of the paper produced on the machine.

Now what I claim, and desire to secure by Letters Patent, is—

1. In an apparatus for indicating the thickness of paper, the combination of a controlling-lever A with link *a*, lever C, sector D, link *f*, lever F, sectors H and G, lever K, pencil *k*, and rotating drum L, substantially as described.

2. In an apparatus for indicating the thickness of paper, the combination of a controlling-lever with a head having a contact knob or piece B, screw *b*, nut *b'* and means to limit the rotation of the nut, substantially as described.

3. In an apparatus for indicating the thickness of paper, the combination of a controlling-lever, an adjustable contact-piece carried by said lever, said contact-piece being adapted to contact with the surface of the paper in its movement through the machine, an indicator connected with and operated by said lever, a recording device controlled by said lever and adapted to record the variations in thickness of the paper.

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

CARL BECKH.

Witnesses:
EMIL BAUMGAERTNER,
HERMAN WAGNER.