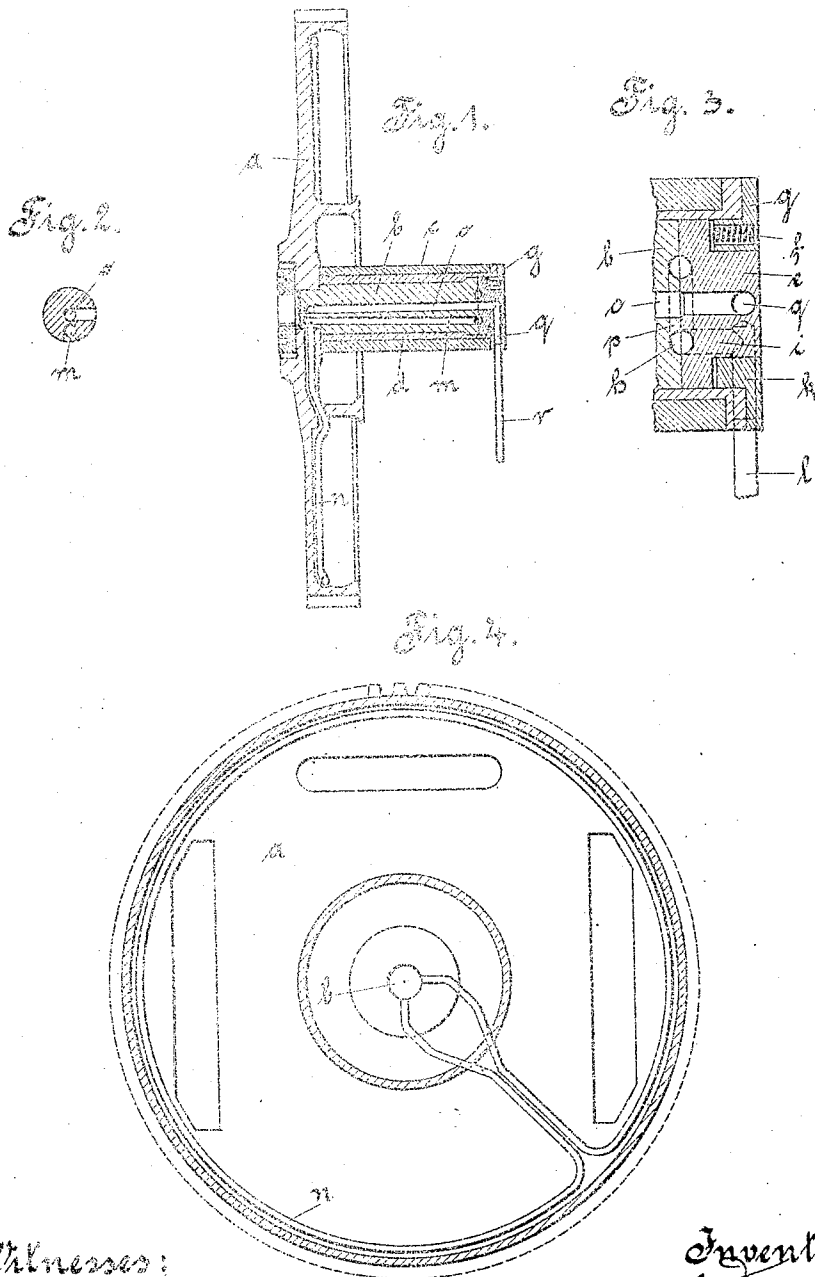


H. DEGENER.
 LINE SETTING AND CASTING MACHINE.
 APPLICATION FILED APR. 13, 1909.

977,280.

Patented Nov. 22, 1910.



Witnesses:
James H. Brown
Carl L. Lusk

Inventor:
H. Degener

UNITED STATES PATENT OFFICE.

HEINRICH DEGENER, OF BERLIN, GERMANY.

LINE SETTING AND CASTING MACHINE.

977,280.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HEINRICH DEGENER, of 26 Hollmannstrasse, Berlin, German Empire, manager, having invented certain new and useful Improvements in or Relating to Line Setting and Casting Machines, do hereby declare that the following is an exact specification of the same.

In line setting and casting machines of a known kind, the casting mold in which the line is cast, is secured in a so-called casting wheel which rotates at a given moment in order to bring the casting mold from the casting point to the ejection point of the line, and vice-versa. It is a well known fact that the casting mold more particularly in the case of lines of large body or great length, quickly gets hot and then the working is disturbed owing to the mold warping. While in some constructions of line setting and casting machines it has been found possible to obviate the above disadvantage and to provide water-cooling, the provision of such water-cooling in line-setting and casting machines according to this system offers extraordinary difficulties as the casting wheel is secured to a comparatively short rotating belt or pin and on both sides of the said pin, at very small intervals, are arranged other important constructional parts of the setting machine, which cannot be removed. Cooling devices provided for this system of machine, necessitate either a constructional modification of single parts of the machine or the water is not supplied and discharged in a closed pipe, so that in case of the outlet becoming choked, the water runs into the machine and damages it. This invention solves the problem in question by a special arrangement of the bolt or pin which constitutes the supply and discharge conduit for the water.

In the accompanying drawings: Figure 1 is a section through the casting wheel and the rotating bolt or pin; Fig. 2 a section through the bolt itself; Fig. 3 a view of the right-hand portion of Fig. 1, on an enlarged scale, turned to an extent of 90°; and Fig. 4 an elevation of Fig. 1 seen from the right.

The casting wheel *a* is secured in well known manner to the pin or bolt *b*. The bolt or pin is pivotally mounted in a sleeve *d* secured to the bearing *c*, and is prevented from shifting in the said sleeve in either direction by a collar. Against the right-hand front end of the bolt *b* rests a part *e*

which is pressed by means of springs *f* against the front end of the bolt. The springs *f* themselves are arranged in perforations of the cover *g* which can be screwed into the sleeve *d* or secured to the same by means of bolts. The sleeve *d* and with it the cover *g* and the part *e* are stationary and prevented from rotating, while the casting wheel *a* rotates with the pin *b*. The pin *b*, as well as the part *e*, are provided at the front ends engaging together, with annular recesses of, say, semi-circular cross-section which together form an annular conduit *h*. Into the said conduit lead the perforations *i* and *k* passing through the part *e*, and the water supply pipe *l* is connected to the perforation or conduit *k*. The annular conduit is moreover connected to a perforation *m* passing through the pin *b*, connected at the other side of the casting wheel to the water pipe *n*. In the drawing the said pipe *n* is shown as going around once the casting wheel but it can go several times around it and also be carried along the casting wheel in a coil shape or in any other desired manner. It opens into a central perforation *o* of the pin *b* which is continued by and also central perforation *p* of the part *e*. The latter is again adjoined by another transverse perforation *q* through the part *e*, which again is continued by an outlet pipe *r*. The water enters, therefore, through the pipe *l* passes through the perforation *k* and *i* of the part *e*, (Fig. 3) into the annular conduit *h* between the pin *b* and the part *e*, flows from here through the lateral perforation *m* of the bolt *b* to the cooling pipe *n*; he through the central perforation *o* of the bolt *b* and the perforation *p* and *q* of the part *e* to the outlet pipe *r*. It goes without saying that the water can be caused to flow also in the reverse manner. Owing to the peculiar division of the bolt or pin into a stationary and a rotatable part, and the arrangement of a central and of an annular perforation it is therefore possible, without any constructive modification of the machine itself, more particularly without introducing new construction parts in front or behind the pin, to introduce water-cooling in the machines of the present kind, which increases the reliability of working.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is:

In a line setting and casting machine in

combination a rotating pin, a casting wheel
adapted to support a mold and secured to
the rotating pin, said pin having a central
and a lateral perforation and being provided
5 with a lid the adjoining surfaces of the lid
and the pin having annular recesses forming
together an annular circuit, in which the
lateral perforation opens, a fixed sleeve for
said pin and means for pressing the pin and

the lid against each other, substantially as 10
described.

In witness whereof I have hereunder set
my hand in presence of two witnesses.

HEINRICH DEGENER.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.