

(No Model.)

H. ROBISCHUNG.

MEANS FOR HOLDING PRINTING PLATES ON CYLINDRICAL OR FLAT SURFACES.

No. 427,365.

Patented May 6, 1890.

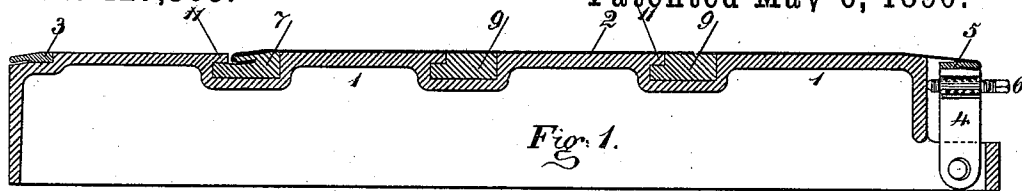


Fig. 2

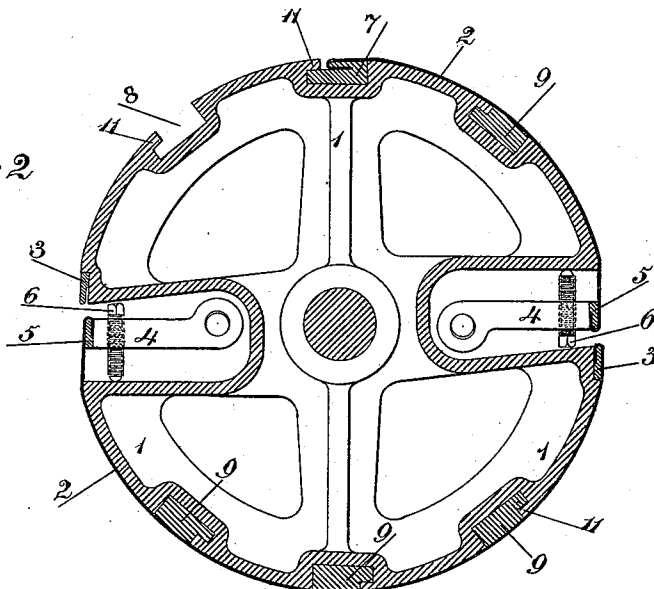
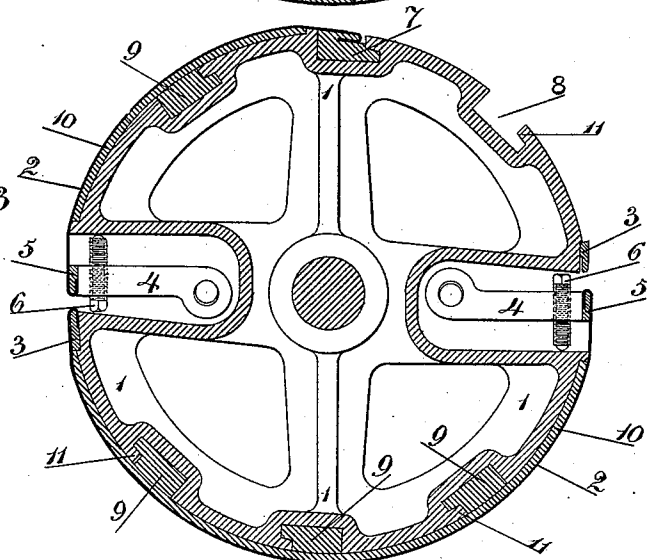


Fig. 3



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UNITED STATES PATENT OFFICE.

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MEANS FOR HOLDING PRINTING-PLATES ON CYLINDRICAL OR FLAT SURFACES.

SPECIFICATION forming part of Letters Patent No. 427,365, dated May 6, 1890.

Application filed September 23, 1889. Serial No. 324,787. (No model.)

To all whom it may concern:

Be it known that I, HENRY ROBISCHUNG, of Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Means for Holding Printing-Plates on Cylindrical or Flat Surfaces, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

10 The object of this invention is to provide an improvement upon means heretofore proposed for securing thin plates of different lengths upon either cylindrical or flat-form surfaces of the cylinders or beds of printing-machines.

15 The invention will first be described in detail, and then particularly set forth in the claims.

For some kinds of work it is often desirable to print only upon a small part of a sheet or upon a sheet of less size than the maximum upon which the machine is designed to print, and in such cases it is desirable to avoid using a printing-plate of the maximum length and to be enabled to use short plates for short sheets or short designs.

20 In the accompanying drawings, Figure 1 is a vertical longitudinal section through a flat bed or plate-holder for use upon a reciprocating-bed machine, and Fig. 2 a transverse section through a form-cylinder for a rotary machine, each of said figures showing a thin printing-plate stretched upon them by means which form no part of this invention. Fig. 3 is a transverse section through a form-cylinder, showing a modification by the interposition of a second thin plate between the printing-plate and the cylinder-surface for the purpose of avoiding any deviation from a true cylindrical surface being produced in the thin printing-plate by any slight irregularity in the "dummy-blocks" hereinafter described.

40 In said figures the several parts are indicated by reference-numbers, as follows:

The number 1 indicates the form-cylinder or plate-holder; 2, the thin printing-plate; 3, the permanent grooved block over which one end of a full-length plate is hooked. The straining-levers 4 carry a grooved strip 5, simi-

lar to the grooved block 3, over which the straining end of the plate is hooked.

The numbers 6 indicate the straining-screws, and 7 detachable grooved blocks fitting corresponding grooves 8, formed in the surface of the cylinder or plate-holder, the grooves being of such form as to have an overhanging lip 11, holding one edge of the grooved plate in place where a plate shorter than maximum length is used. The dummy-blocks 9 are formed to fit the grooves 8, and their tops are flush with and conform exactly to the cylinder or bed-surface.

55 In Fig. 3 a thin sheet of metal or other suitable substance 10 is interposed between the printing-plate 2 and the surface of the cylinder 1 to insure a true cylindrical form being given to the printing-plate when stretched over a cylinder, or a true plane surface when stretched over a flat bed, where there may be any slight inequality in the dummy-blocks 9. In this case the grooved blocks 3 and 7 are made to be as much above the surface of the cylinder or bed 1 as the surface of the plate 10. As many of the plates 10 are used as there are blocks 9, and an additional one for a full-sized printing-plate when the end grooved block 3 is in use.

70 The grooved blocks 7 may be placed in any of the grooves 8, and, as shown, said grooves are such in number as will take in each case four different lengths of printing-plate. The number of these grooves is arbitrary, and cylinders or beds may be made with any number best suited to the work the machine is designed to do.

85 In Figs. 2 and 3 the cylinders are shown as constructed to carry two printing-plates of maximum length, occupying each something less than one-half of the peripheries of said cylinders; but of course the same construction is applicable to a cylinder carrying but one straining-lever 4 and one end grooved block 3, the printing-plate in such case covering the entire periphery, except a single gap within which the straining-levers work.

90 Having thus fully described my said improvements as of my invention I claim—

1. In a printing-machine, in combination with a form or plate cylinder or bed carrying

a thin printing plate or plates secured by tensional straining over its surface, a detachable grooved block or blocks, as 7, for securing the fixed ends of the plates fitting correspondingly-shaped grooves in said cylinder or bed, and a dummy block or blocks, as 9, fitting said grooves and formed to be a continuous part of the cylindrical or flat surface when in place, whereby thin printing-plates of several dimensions may be stretched and firmly held upon a form or plate cylinder or bed, substantially as set forth.

2. In a printing-machine, in combination with a form or plate cylinder or bed carrying a thin printing plate or plates secured thereto by tensional straining over its surface, a detachable grooved block or blocks, as 7, for se-

curing the fixed ends of the plates fitting correspondingly-shaped grooves in said cylinder or bed, a dummy block or blocks, as 9, fitting said grooves and formed to be a continuous part of the cylinder or bed surface, and an underlying plate or plates, as 10, placed between the surface of said cylinder or bed and said printing plate or plates, whereby thin printing-plates of several dimensions may be stretched and securely held upon the form or plate cylinder or bed, substantially as set forth.

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Witnesses:

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