

No. 697,173.

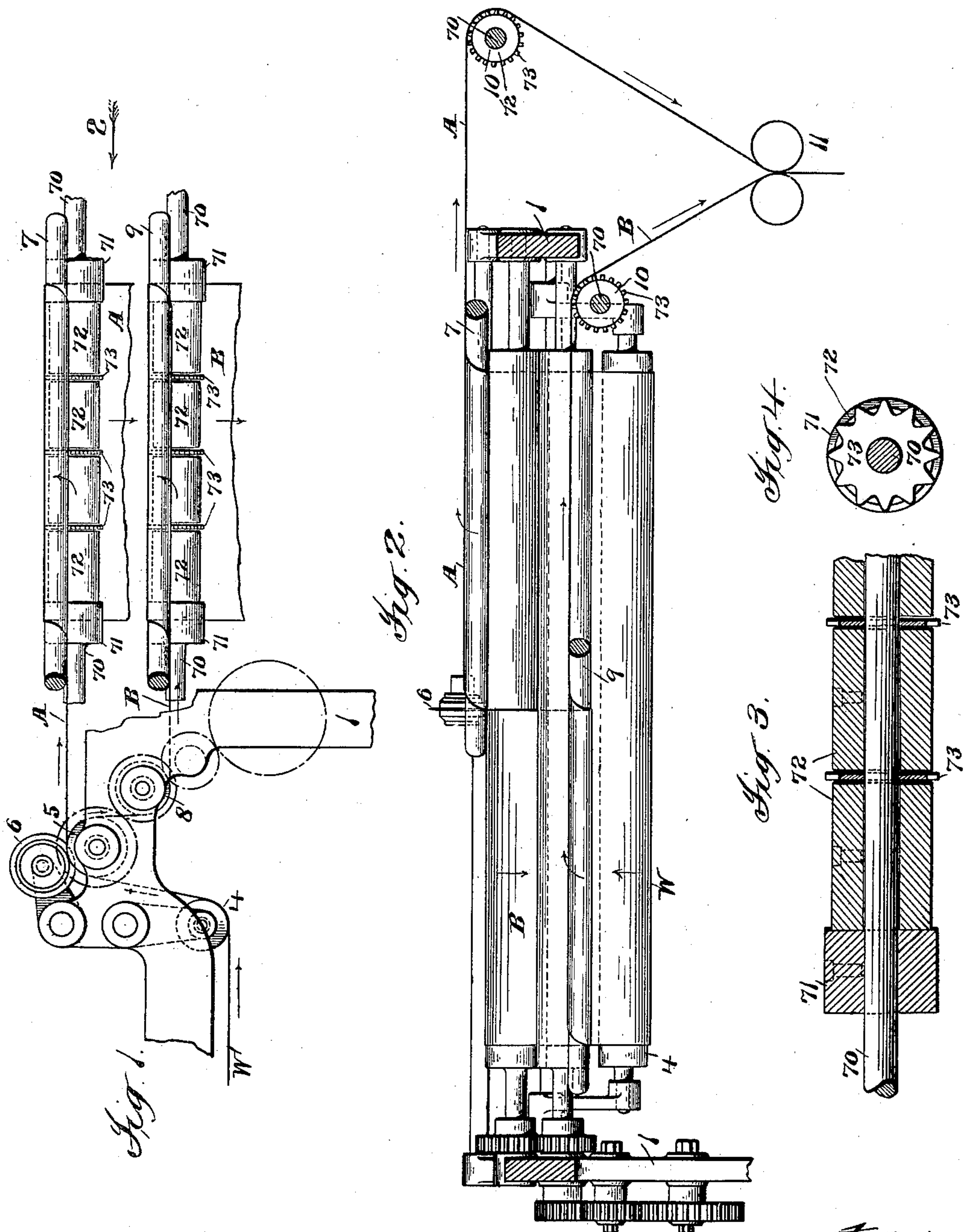
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O. ROESEN.

WEB GUIDE FOR PRINTING MACHINES.

(Application filed June 1, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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WEB-GUIDE FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 697,173, dated April 8, 1902.

Application filed June 1, 1901. Serial No. 62,730. (No model.)

To all whom it may concern:

Be it known that I, OSCAR ROESEN, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Web-Guides for Printing-Machines, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to certain improvements in web-guides for printing-machines. In forwarding printed webs in printing-machines, and more particularly those webs which carry solid heavily-inked surfaces, such as cuts, the printing on the web is liable to become smeared or rubbed as it passes over the guides.

The object of this invention is to produce an improved guide for printing-machines, said guide being provided with means for preventing the webs from becoming smeared as they pass over the guide.

With this and other objects in view the invention consists in certain constructions and in certain parts, improvements, and combinations, as will be hereinafter described and then more particularly pointed out in the claims hereunto appended.

In the accompanying drawings, in which like characters of reference indicate the same parts, Figure 1 is a side elevation, partly in section, of so much of a printing-machine as is necessary to an understanding of the invention. Fig. 2 is a view of the construction shown in Fig. 1, the view being taken in the direction of the arrow 2 in that figure. Figs. 3 and 4 are detail sectional views of the improved guide.

Referring to the drawings, 1 indicates a portion of the frame of a printing-machine, which may be of any desired description. The web W may be printed on couples of any approved type, said couples not being herein shown, because they have no relation to the present invention. The web is shown as passing over a guide 4, which may be a compensating roll of any suitable description, after which it passes over a slitting-roll 5, where it is divided into two sections A B by means of a slitting-knife 6 of any ordinary construction. After leaving the slitting-roll the portion A

of the web is led forward and over the turner-bar 7, which is of usual construction. The portion B of the web after leaving the slitter is led downward over a roll 8 and then forward to a turner-bar 9, which is also of usual construction. These turner-bars are located in different horizontal planes and serve to bring the part A of the web over the part B, so that the two may be associated in the usual manner.

After leaving the bar 7 the portion A of the web is led over a guide 10 and then to a suitable cutting and folding mechanism, a part of which is indicated at 11, and the portion B of the web after leaving the turner-bar 9 is led over a similar guide 10 and then to the same cutting and folding mechanism 11, the two webs being associated by this mechanism.

The guides 10 may vary widely in construction. As shown, each guide consists of a shaft 70, provided on each end with a shoulder 71, which shoulders underlie the margins of the web, thus serving to support the same and to assist in controlling its movement. These shoulders are or may be formed by collars, which are secured to the shaft in any suitable manner—as, for instance, by means of screws. (Indicated by dotted lines in Fig. 3.) Intermediate the shoulders 71 are a series of collars 72, each of these collars being secured to the shaft in any suitable manner—as, for instance, by means of screws. Each of the shafts 70 is provided with a guard, which operates to hold the web away from the guide. While this guard may vary in construction, it preferably consists of a plurality of serrated disks 73, loosely mounted on the shaft. Where the guide 10 consists of a shaft having shoulders, as described, the disk or disks 73 will be located between the shoulders, and where intermediate collars 72 are employed the disks, where a plurality of them are employed, will be located between the collars.

While in some instances the serrated disks 73 might be fast on the shaft, they will preferably be loosely mounted thereon. This enables the disks to be movable with respect to the shaft. In cases, therefore, where the guide is driven slightly faster than the web, as is sometimes the case, the shoulders on

the guide will serve to comb the web forward, said shoulders acting on the web on its margins, and the serrated disks will move at the speed of the web and will serve to hold the printed portions of the web which are intermediate the margins away from the surface of the guide, thus preventing smearing.

While the preferred form of the construction is that shown, it will be understood that under some circumstances a single disk may be used instead of a plurality of disks and that, furthermore, the disk or disks need not be serrated. While, furthermore, the disk or disks will be used in connection with a shaft having shoulders to act on the margin of the web, these shoulders may be omitted, if desired, and the disks alone be depended upon to support the web. While, also, the construction is particularly applicable to driven rolls, it is to be understood that the loosely-mounted disks may be employed with stationary guides. Other modifications of the construction are possible without departing from the invention, and the invention is not, therefore, to be limited to the specific construction herein shown and described.

What is claimed is—

1. The combination with a web-guide having shoulders which underlie the margins of the web, of a guard loosely mounted thereon serving to hold the web away from the guide, substantially as described.

2. The combination with a web-guide having shoulders which underlie the margins of the web, of a disk loosely mounted thereon serving to hold the web away from the guide, substantially as described.

3. The combination with a web-guide having shoulders which underlie the margins of the web, of a serrated disk loosely mounted thereon serving to hold the web away from the guide, substantially as described.

4. The combination with a web-guide having shoulders which underlie the margins of the web, of a plurality of disks loosely mount-

ed thereon, said disks serving to hold the web away from the guide, substantially as described.

5. The combination with a web-guide having shoulders which underlie the margins of the web, of a plurality of serrated disks loosely mounted thereon, said disks serving to hold the web away from the guide, substantially as described.

6. The combination with a roll forming a web-guide, of a guard loosely mounted thereon serving to hold the web away from the guide, substantially as described.

7. The combination with a roll forming a web-guide, of a plurality of disks loosely mounted thereon, said disks serving to hold the web away from the roll, substantially as described.

8. The combination with a roll forming a web-guide, of a plurality of serrated disks loosely mounted thereon, said disks serving to hold the web away from the roll, substantially as described.

9. The combination with a shouldered roll forming a web-guide, of a guard loosely mounted on the roll between the shoulders serving to hold the web away from the roll, substantially as described.

10. The combination with a shouldered roll forming a web-guide, of a plurality of disks loosely mounted thereon between the shoulders serving to hold the web away from the roll, substantially as described.

11. The combination with a shouldered roll forming a web-guide, of a plurality of serrated disks loosely mounted on the roll between the shoulders, said disks serving to hold the web away from the roll, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

OSCAR ROESEN.

Witnesses:

WILLIAM KOERNER,
GEO. M. BROWN.