W. EVENSEN.

PRINTING PRESS.

APPLICATION FILED AUG. 13, 1909.

960,865. Patented June 7, 1910.

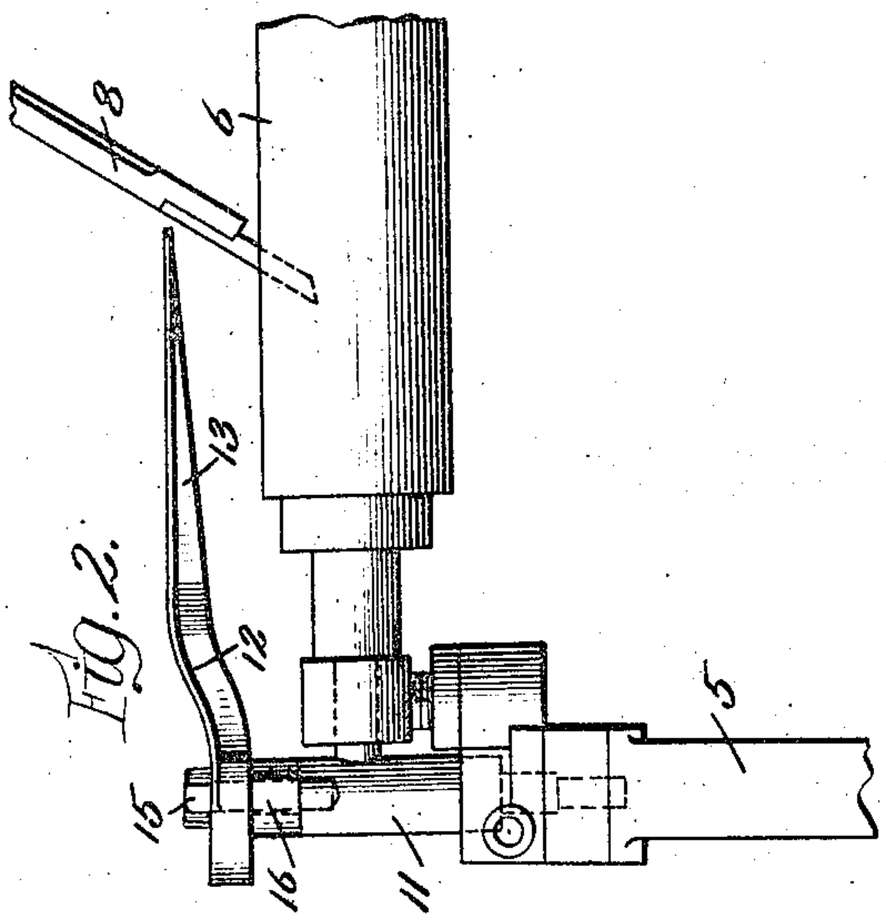

Fig. 2.

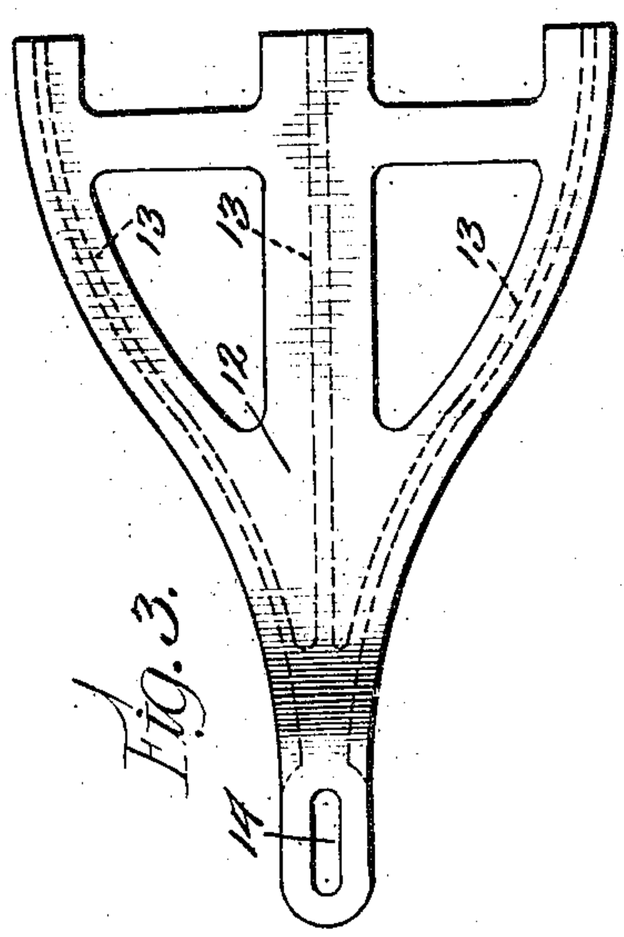

Fig. 3.

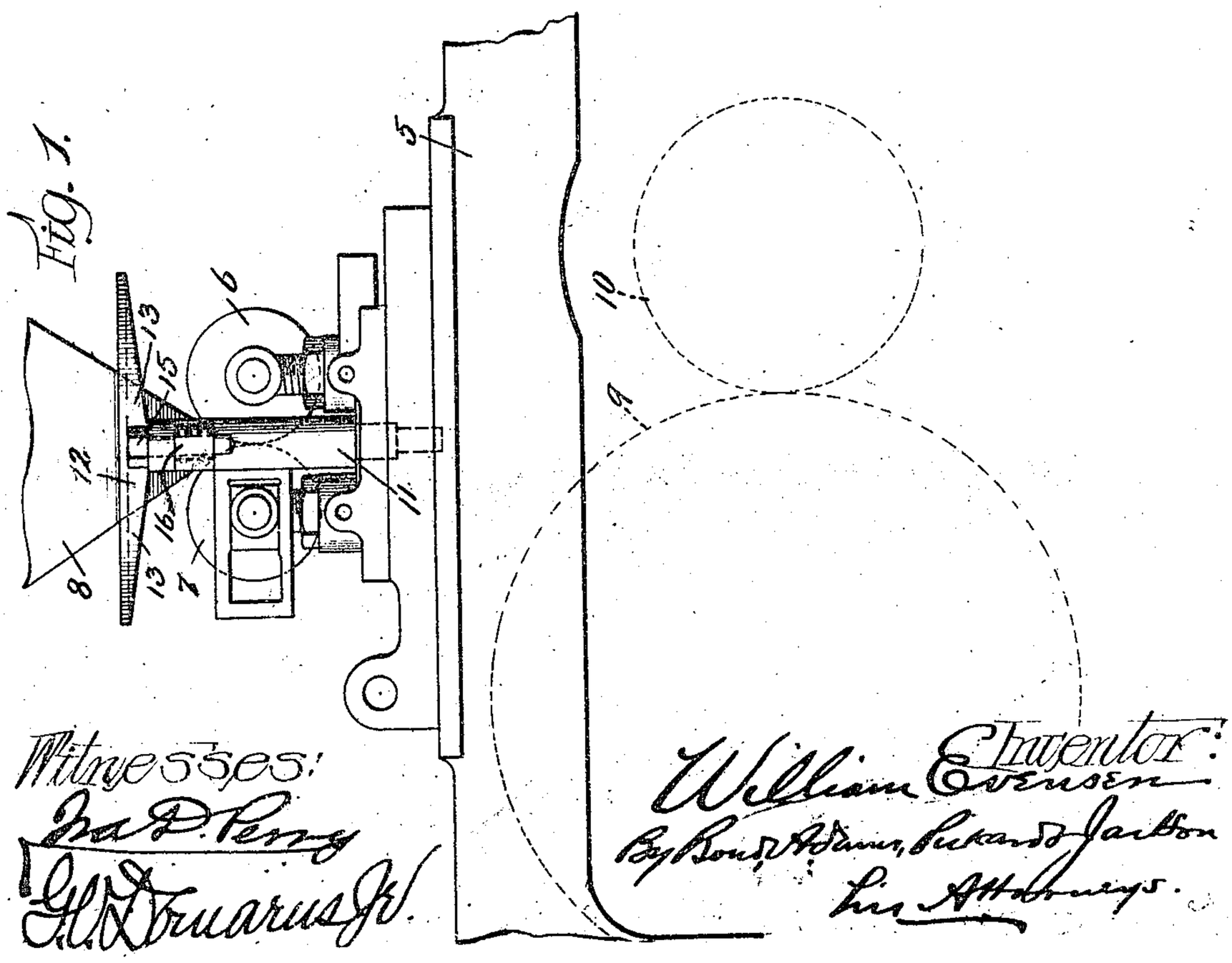

Fig. 1.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM EVENSEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PRINTING-PRESS.

960,865. Specification of Letters Patent. Patented June 7, 1910.

Application filed August 13, 1909. Serial No. 512,719.

To all whom it may concern:

Be it known that I, WILLIAM EVENSEN, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to printing presses, and has for its object to provide a safety device by the operation of which the folding mechanism is prevented from being choked up and broken by wrinkled or torn paper. I accomplish this object by the means illustrated in the accompanying drawings and hereinafter specifically described.

That which I believe to be new will be set forth in the claims.

In the drawings:—Figure 1 is a side elevation of a small portion of an ordinary web-perfecting printing press, showing my safety device in position, and showing diagrammatically a folding and a cutting cylinder. Fig. 2 is a view of certain of the parts shown in Fig. 1 as seen from the right in said figure. Fig. 3 is a top view of the preferable form of my safety device.

Referring to the drawings:—5 indicates the framework of the machine, adjustably mounted in which in any well-known manner are the ordinary pulling and creasing rolls 6—7, down between which projects the point of the ordinary former 8. 9 indicates the rotary carrier of any well-known form of folding mechanism, and 10 indicates a cutting cylinder coöperating therewith. Inasmuch as all these parts are of the ordinary construction and operation and form no part of my present invention, it is believed that no further description of the same is required.

Referring now to my improved safety device and the manner in which it is mounted in the framework of the machine in the construction shown, 11 indicates a standard screw threaded into the framework 5 of the machine.

12 indicates my improved safety device or shield, being in the construction shown fan-shaped, strengthened by means of ribs 13, and provided at its smaller end with a slot 14.

15 indicates a screw which is adapted to be passed through the slot 14 in the shield and secured in a screw-threaded opening in the top of the standard 11.

As seen in Fig. 2, the wider end of the shield 12 projects to within a very short distance from the former 8, the distance therefrom being adjustable by means of the slot 14, as will be understood. The height at which the shield stands relative to the former can of course be regulated as desired by means of washers of various sizes on the screw 15, below the slot 14, a washer 16 being shown in the drawings in position on the screw.

It has been found in practice that when the web of paper breaks in the printing press and comes down over the former in a broken or wrinkled condition, the shield 12 operates to strip the paper from the point of the former and prevents the torn or wrinkled paper from passing between the rolls 6—7 and thence down into the folding mechanism where it would be likely to choke up the folding mechanism and possibly break the same. It has been found also that with the shield 12 in properly adjusted position relative to the former it is impossible for a pressman to lead the web of paper between the rolls 6—7 except in proper position with the paper pulled down smooth and tight over the point of the former, for the reason that when the paper is carelessly led between the rollers in a wrinkled condition the shield immediately strips the paper from the point of the former as above explained. Thus it is seen that the shield not only guards against choking the folding mechanism upon a break of the web in the operation of the machine but also against a careless feeding of the web of paper to the folding mechanism in starting the machine.

So far as I am aware, no one in the art has heretofore provided a safety device of this character either immediately in advance of the folding mechanism in proximity to the former as shown in the drawings or at any other point along the path of travel of the web of paper, and the claims are to be construed accordingly to cover this idea broadly. Moreover, I do not wish to restrict myself to the use of the single one-piece fan-

shaped shield shown in the drawings, except as claimed in the more specific of the claims hereinafter presented.

While I have shown the shield 12 positioned obliquely relative to the former 8 at an obtuse angle to the direction of the run of the paper over the former, it will be understood that I do not limit myself to thus placing the shield at an obtuse angle to the run of the paper, except as hereinafter specifically claimed.

What I claim as my invention and desire to secure by Letters Patent is—

1. In a printing press, the combination with a folding mechanism, of a shield located in proximity to the run of the paper through the press in advance of the folding mechanism and adapted to strip the paper from its path when the same becomes wrinkled or broken.

2. In a printing press, the combination with a folding mechanism, of a shield located in proximity to the run of the paper in advance of the folding mechanism and positioned at an obtuse angle to the direction of travel of the paper, said shield being adapted to permit the paper when in normal unwrinkled condition to run clear of the shield.

3. In a printing press, the combination with a folding mechanism, a former located in advance of the folding mechanism, and creasing devices coöperating with said former, of a shield projecting to within a short distance of said former and adapted to strip broken or wrinkled paper from said former.

4. In a printing press, the combination with a folding mechanism, a former located in advance of the folding mechanism, and creasing devices coöperating with said former, of a shield projecting toward said former and adjustable relative thereto, being adapted when properly adjusted to strip torn or wrinkled paper from said former.

5. In a printing press, the combination with a folding mechanism, a former located in advance of the folding mechanism, and creasing devices coöperating with said former, of a shield projecting toward said former at an obtuse angle to the initial direction of travel of the web of paper over the former and adapted to strip torn or wrinkled paper from said former.

6. In a printing press, the combination with a folding mechanism, a former located in advance of the folding mechanism, and creasing devices coöperating with said former, of a fan-shaped shield presenting its wider end toward said former and mounted adjustably relative thereto, being adapted when in properly adjusted position to strip torn or wrinkled paper from said former.

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Witnesses:
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