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 FEED ATTACHMENT FOR CYLINDER PRINTING PRESSES.
 APPLICATION FILED SEPT. 24, 1910.

998,350.

Patented July 18, 1911.

FIG. 1.

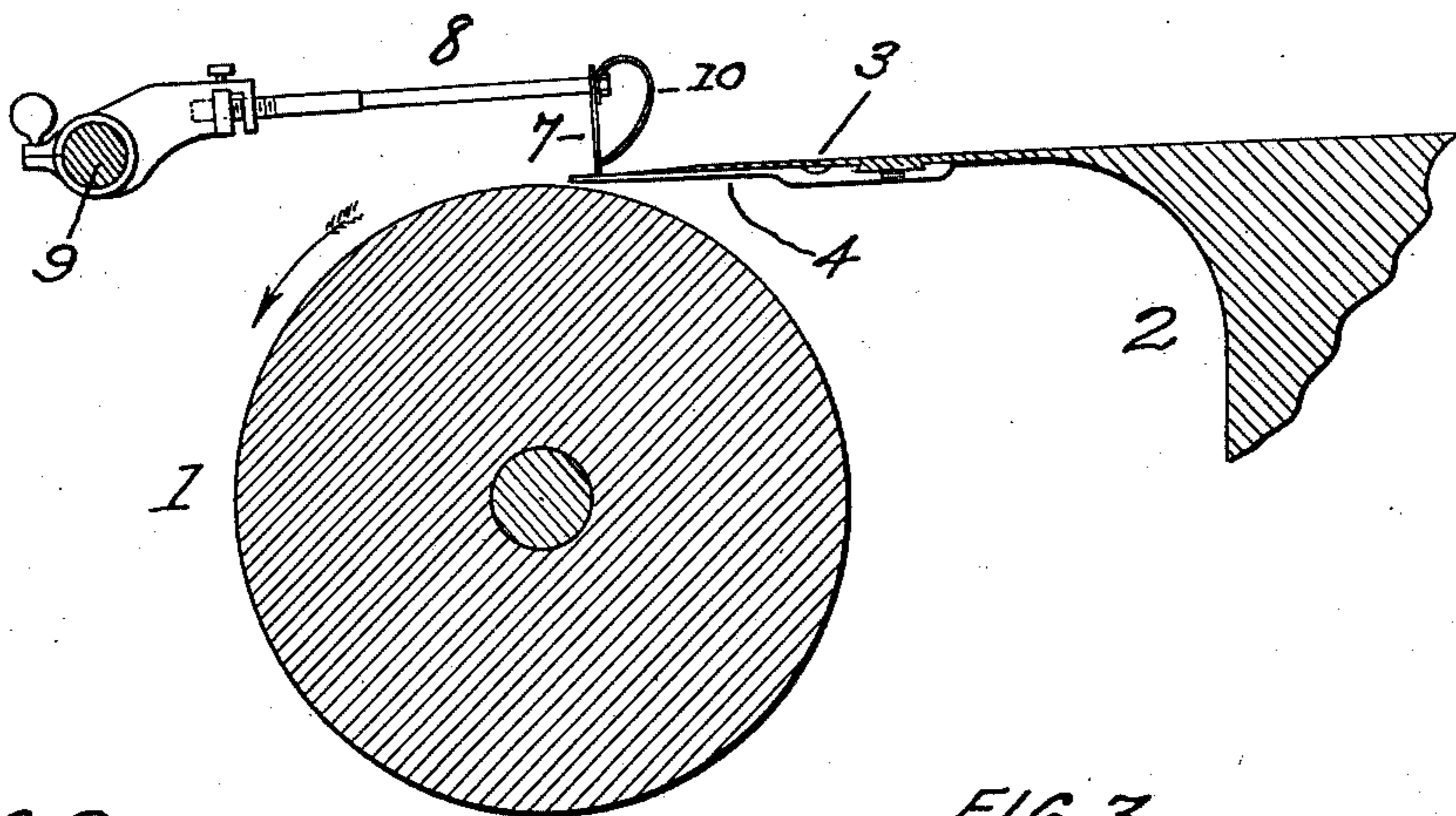


FIG. 2.

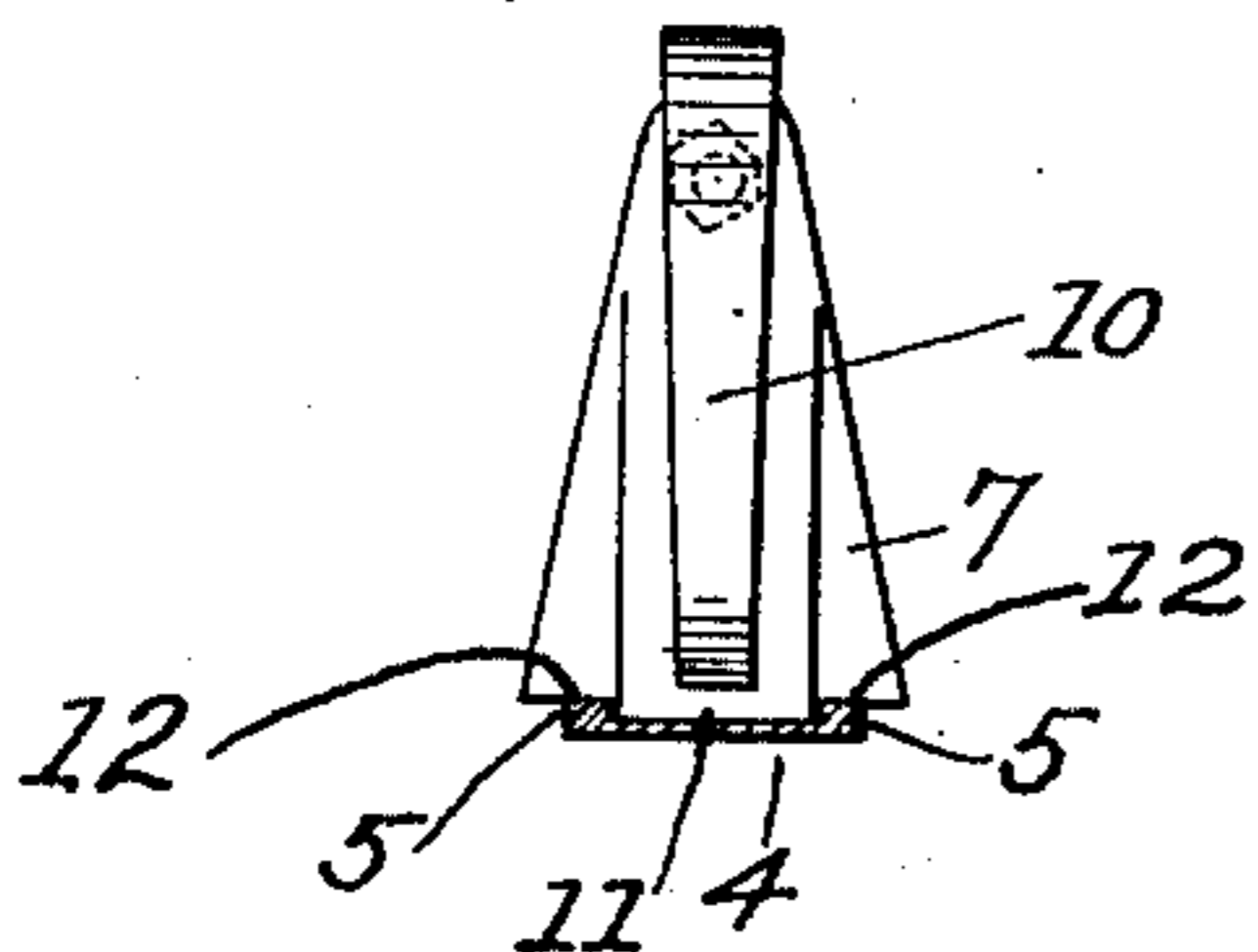


FIG. 3.

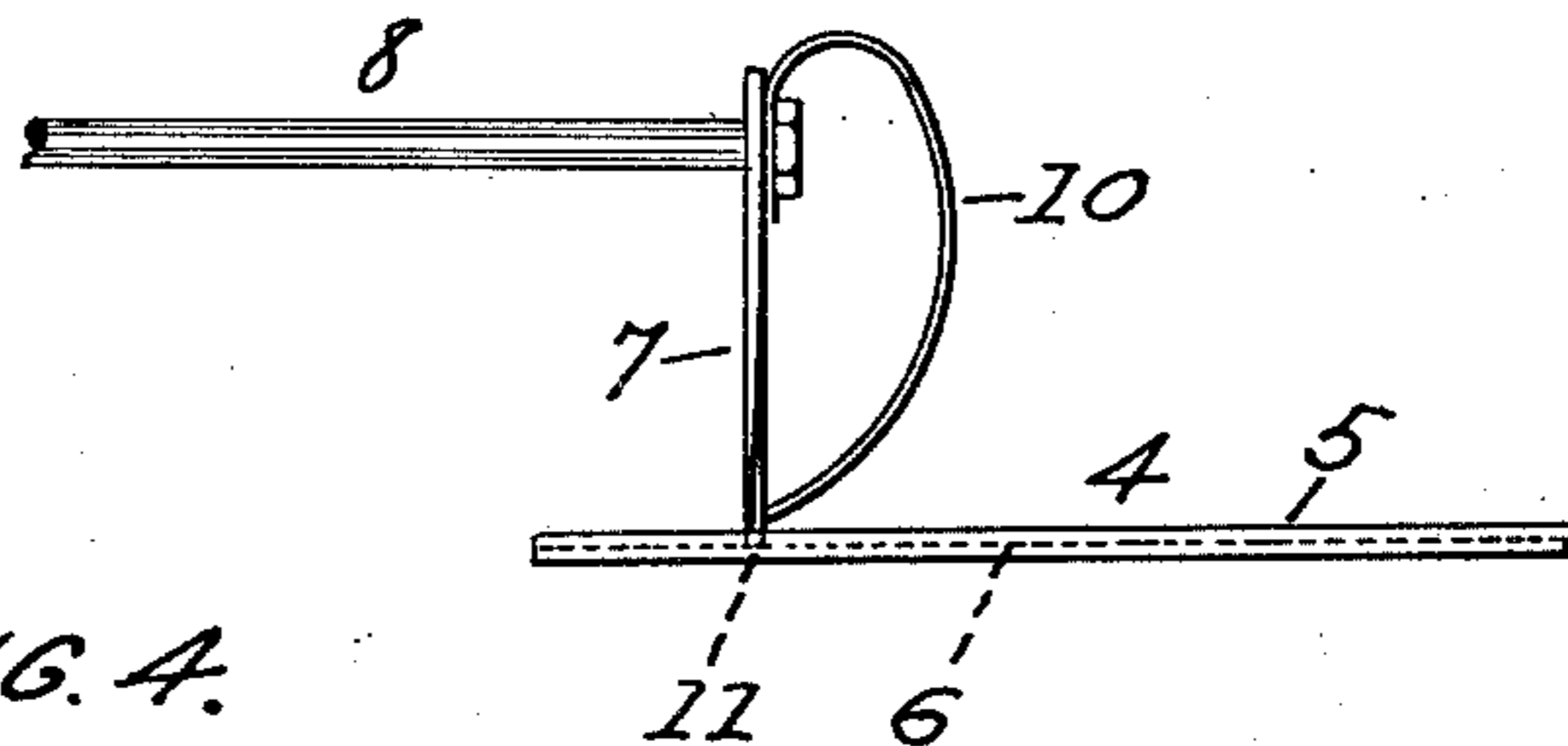


FIG. 4.

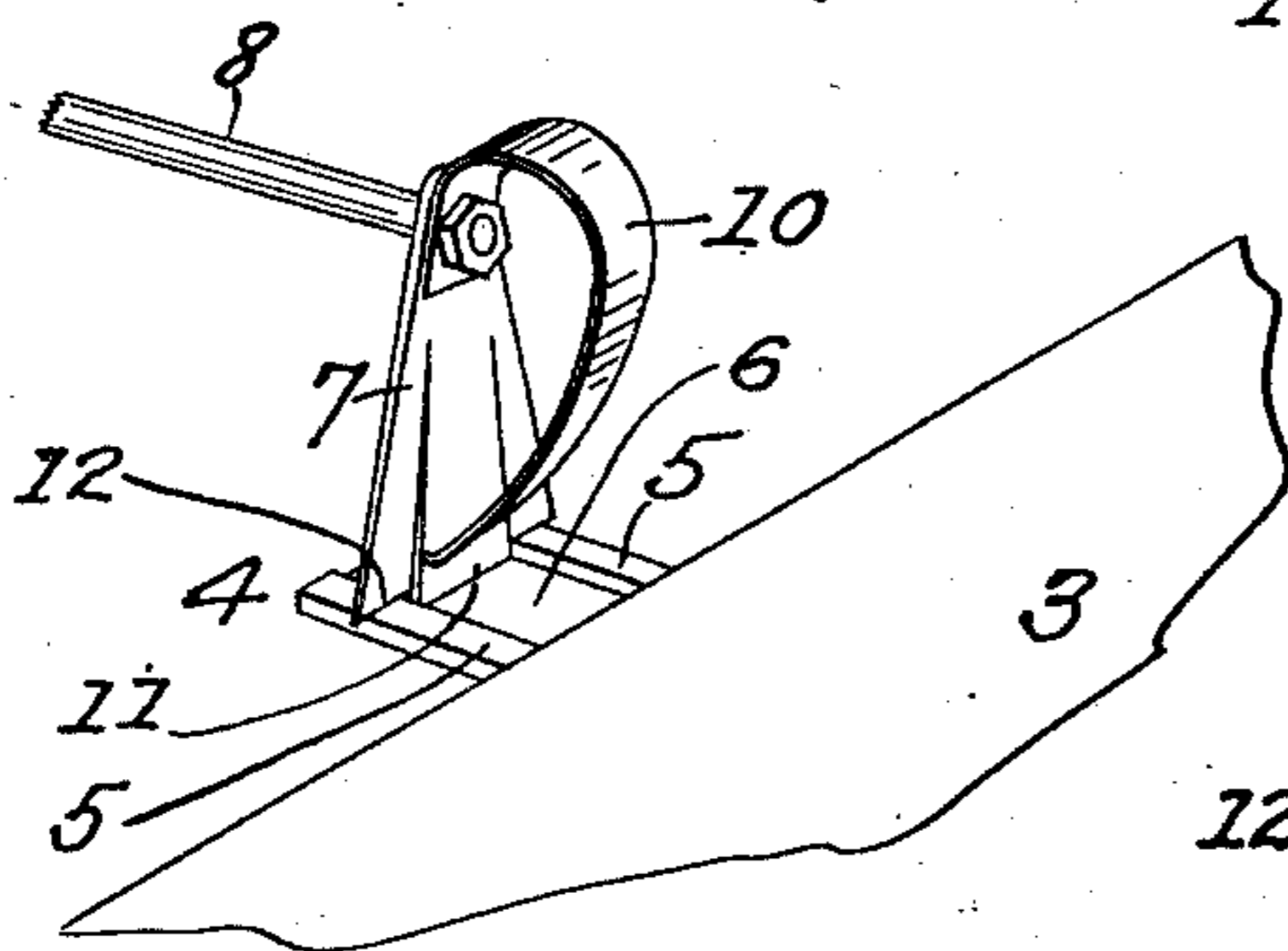


FIG. 5.

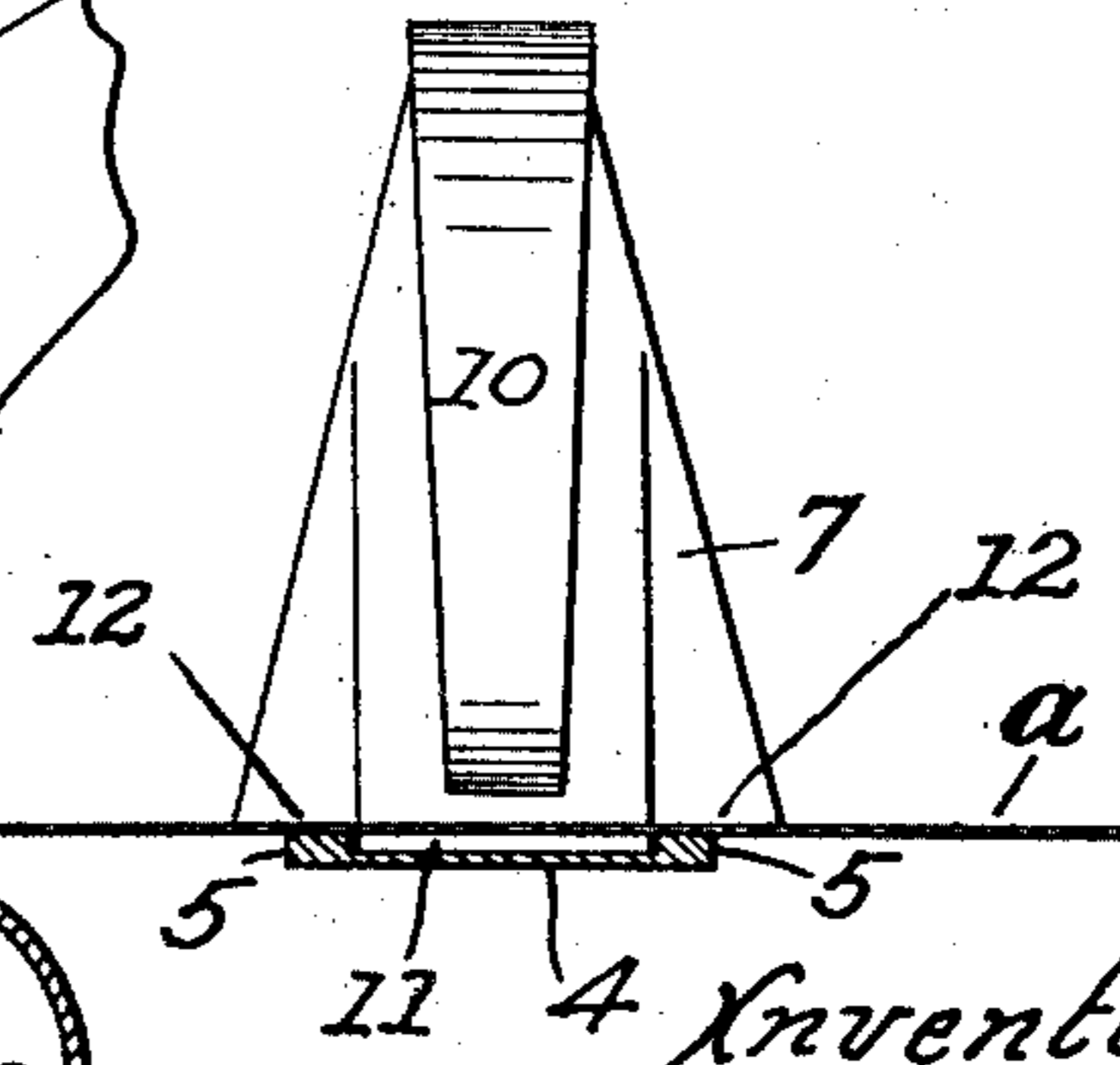
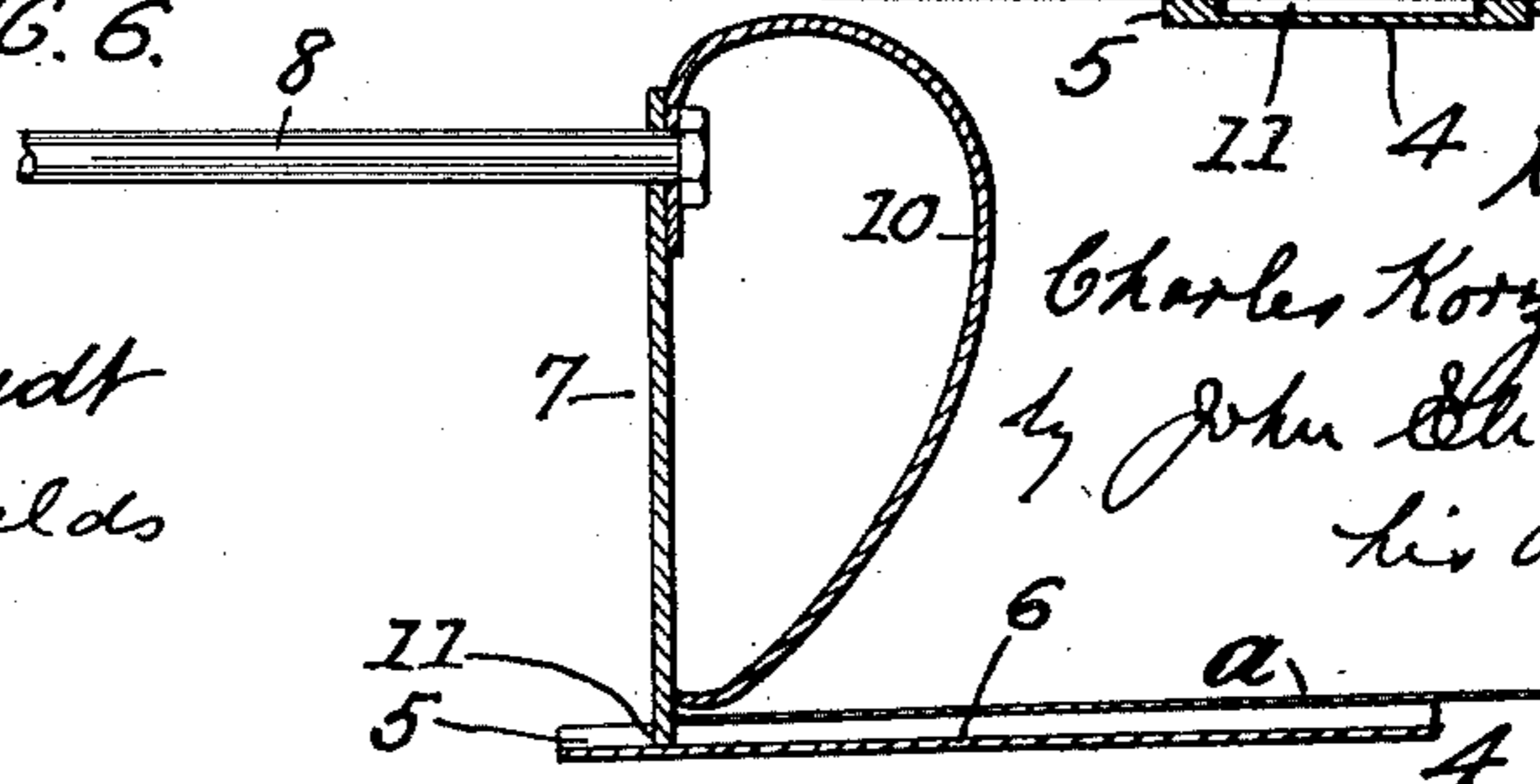


FIG. 6.



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UNITED STATES PATENT OFFICE.

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FEED ATTACHMENT FOR CYLINDER PRINTING-PRESSES.

998,350.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES KORZENBORN, Jr., a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Feed Attachments for Cylinder Printing-Presses, of which the following is a specification.

This invention relates to feed-attachments for use in connection with the fore end of the board or table on which the sheets are piled in the process of advancing them one by one to and over the cylinder that delivers them to the type below for printing beneath said cylinder, and the object of the invention is to provide a device that is adapted to serve as a temporary setting device and stop for each sheet as it advances and constructing said stop in such a peculiar manner that the fore edge of the sheet cannot become worked under it while being held back thereby and thus preventing any buckling or catching detention of said sheet to injure the latter, or so crumpling the same as to choke up the press and unduly retard its operation.

The novel features of the invention will be hereinafter described in connection with its details and particularly pointed out in the claim.

In the accompanying sheet of drawings, Figure 1 is a diagrammatical fragmentary section, showing the cylinder, the feed-table mount, the fore end of the feed-table, the rock-shaft adjacent said cylinder and the arm on said rock-shaft to which my improved temporary stop-attachment is applied, the said stop-attachment being shown in its operating position at said fore end of the feed-table; Fig. 2, a front elevation of said stop-attachment, including a transverse section of the grooved feed-tongue in which a lower centrally-projecting end or extension of said stop-attachment engages; Fig. 3, a side elevation showing the stop-attachment in connection with said grooved feed-tongue, the latter and the arm of the stop-attachment being shown broken off; Fig. 4 a fragmentary perspective view showing the fore end of the feed-table, the feed-tongue extending forwardly therefrom and the stop-attachment engaging said feed-tongue in proper relation for receiving the fore edge of the sheet in its advance toward the

cylinder; Fig. 5, a front elevation of the stop-attachment, including a transverse section of the feed-tongue and showing a sheet in cross-section in position engaging the said stop-attachment and the latter engaging the said feed-tongue; and Fig. 6, a fragmentary sectional elevation showing the feed-tongue, the stop-attachment, the arm for supporting said stop-attachment and a sheet in engagement with said stop-attachment.

In these views, 1 indicates the cylinder of an ordinary cylinder printing-press, and 2 the feed-table mount located adjacent said cylinder, as customary.

3 indicates the feed board or table mounted at the fore edge of said mount so as to properly project from said mount in relation to said cylinder 1.

4 indicates each one of a number of feed-tongues adjustably and detachably mounted upon the under side of said feed-table so that its outer end projects somewhat beyond the fore edge of said feed-table, as best seen in Fig. 4. Each feed-tongue has raised longitudinal sides 5 and a grooved or sunken center 6.

7 indicates a pendent feed-guide arm or stop projecting from the fore end of the spindle 8, the latter, in turn, being mounted, as customary, on a rock-shaft 9 that journals in the main-frame of the press.

10 indicates the feed-guide curler or spring whose lower free end bears against the lower portion of the guide arm or stop 7 to impart the desired resiliency to said guide arm or stop 7 and prevent any undue vibration thereof in the operation of the press. The lower end of the feed-guide arm or stop 7 has a central integral extension 11 that projects forward and downward and engages the grooved or sunken center 6 of the feed-tongue 4, as best seen in Fig. 4, and, also, quite distinctly shown in Figs. 2, 5 and 6. The raised longitudinal sides 5 of the tongue 4 normally rest in contact with the lateral edges 12, 12 of the feed-guide arm or stop 7.

In the operation of the device, each sheet of paper (indicated by the letter *a*) is fed up to the series of feed-guide arms or stops 7, the fore edge of the sheet contacting with the forwardly-projecting part of the extension 11 of said feed-guide stops. The lower or depending portion of the extension 11 of each feed-guide stop 7 projects deeply

into the countersunk center 6 of each tongue 4 and its said forwardly-projecting part combined therewith thereby prevents the said fore edge of the sheet from becoming
 5 caught in any manner beneath the said feed-guide arms or stops and especially under the lateral bottom edges of the arms at either side of the said forwardly-projecting part of said lower extension 11. This forms
 10 the essential feature of the invention herein and it is obvious that it is very important in the action of a printing-press, as the catching of the fore edges of the respective sheets is effectually and positively obviated
 15 and the consequent crumpling of the entire sheet or any material part thereof is prevented, which would otherwise clog up the press and detain its further operation until the clogged or crowded sheet is
 20 removed. The feed-guide curlers or springs are adapted to positively deliver the fore edge of each sheet beneath the array of feed-guide arms or stops 7 when the latter
 25 the timed action of the rock-shaft and when

said sheet is to be fed onward to the cylinder 1 and thence to the printing type below.

I claim:—

A feed-attachment for a cylinder printing-press, the same comprising a feed-table, 30 a feed-tongue extending from the fore end of the feed-table and having a longitudinally-countersunk upper face, a rock-spindle parallel to said feed-tongue, a feed-guide 35 curler, a pendent feed-guide stop-arm mounted on said rock-spindle and having a broad lower edge, a protuberant face vertically-extended from the front face of the stop-arm and a central tongue extending 40 downwardly and integrally from the lower edge of the stop-arm and that of the said protuberant face and adapted to engage the said longitudinal countersink in the feed-tongue with the lateral bottom edges of the stop-arm contacting with the upper sheet- 45 resting plane of the feed-tongue.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."