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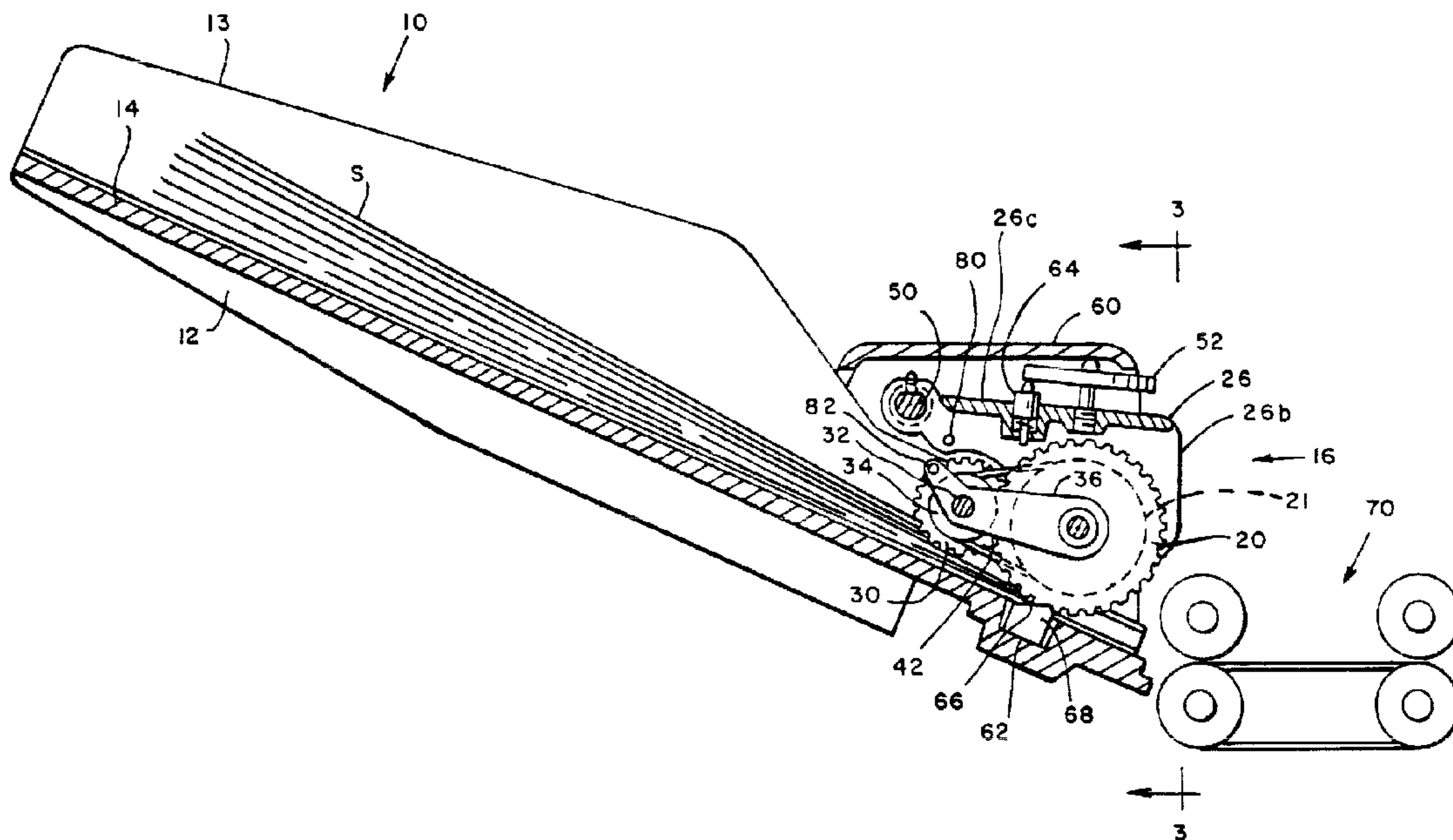
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(54) Titre : ALIMENTATEUR DE DOCUMENTS DOTE D'UN MOTEUR DE DISPOSITIF SEPARATEUR A
ENTRAINEMENT DIRECT DONT LA POSITION PEUT ETRE INVERSEE

(54) Title: DOCUMENT FEEDER HAVING REVERSIBLY POSITIONED DIRECT DRIVE SEPARATOR ASSEMBLY
MOTOR



(57) Abrégé/Abstract:

The present invention is embodied in an inserting machine which feeds documents, inserts and envelopes. The sheet feeder comprises a frame, including a feed deck for holding a stack of sheets to be fed; and a separator wheel assembly, including at least one separator wheel, adjustably mounted to the frame above the feed deck. A motor is mounted adjacent to the wheel assembly for directly driving the separator wheel. Separator means for cooperating with the separator wheel assembly to restrict the feeding to single sheets is mounted to the frame opposite the separator wheel assembly and extends in-part above the feed deck. In another embodiment of the present invention, the direct drive motor is positionable on either side of the separator wheel assembly for achieving offset feeding adjustments of the separator wheel assembly. In a further embodiment of the present invention, the separator wheel assembly is spring biased for adjusting its position above the feed deck by means an indexing wheel to a position commensurate with the characteristics of the material being fed.



DOCUMENT FEEDER HAVING REVERSIBLY POSITIONED
DIRECT DRIVE SEPARATOR ASSEMBLY MOTOR

Abstract of the Invention

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machine which feeds documents, inserts and envelopes. The
sheet feeder comprises a frame, including a feed deck for
holding a stack of sheets to be fed; and a separator wheel
assembly, including at least one separator wheel, adjustably
mounted to the frame above the feed deck. A motor is
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the separator wheel. Separator means for cooperating with
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single sheets is mounted to the frame opposite the separator
wheel assembly and extends in-part above the feed deck. In
15 another embodiment of the present invention, the direct
drive motor is positionable on either side of the separator
wheel assembly for achieving offset feeding adjustments of
the separator wheel assembly. In a further embodiment of
the present invention, the separator wheel assembly is
20 spring biased for adjusting its position above the feed deck
by means an indexing wheel to a position commensurate with
the characteristics of the material being fed.

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Field of Invention

This invention relates to an improved separator assembly for document feeders and particularly to separator assemblies for document feeders used in feeder modules in a multiple module document inserting machine.

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Background of the Invention

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In the art of feeding documents, it is known to use interference separation in a feeder including separator wheels rotating in conjunction with a fixed stone for the purpose of feeding documents seriatim from a stack. In known inserters, the driving mechanism for such feeders generally has been a friction drive situated on the outside of the paper path of the inserter. Typically, the friction drives are operatively connected to and driven by the main drive assemblies of the inserter, and are controlled through the use of various clutch mechanisms. An example of such a feeder is described in U.S. Patent No. 2,762,623 issued September 11, 1956 to Uthenwoldt, et al. and assigned to the assignee of the present invention. Generally, the gear and clutch arrangement for such friction drives comprises a substantial number of parts. Over time, normal wear and tear on the friction drives parts causes them to exceed

