

UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR PAPER JOGGERS.

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To all whom it may concern:

Be it known that I, WALTER A. MCGARVIN, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Attachments for Paper Joggers, of which the following is a specification.

My invention relates to paper joggers for printing presses, and in paper joggers as heretofore proposed the stock guides which are designed to jog the sheets of paper into alined position for stacking have been found to fail in their purpose because of the fact that they, being rigid and unyielding, the jogging action is too severe, with the result that the sheets, instead of being alined, are bent or folded at their edges and thus remain in disalined positions.

It is a purpose of my invention to provide a simple and inexpensive attachment for the conventional jogger by means of which the jogging of the paper sheets into alined position is positively insured.

It is also a purpose of my invention to provide an attachment for paper joggers which includes elements for properly guiding the sheets of paper into the jogger as received from the press.

I will describe only one form of attachment for paper joggers embodying my invention, and one form of conventional paper jogger, and will then point out the novel features thereof in claims.

In the accompanying drawings

Figure 1 is a vertical sectional view taken on the line 1—1 of Figure 3, showing a paper jogger having applied thereto one form of attachment embodying my invention;

Figure 2 is a top plan view of the jogger and the attachment shown in Figure 1;

Figure 3 is a view showing in end elevation the jogger and the attachment;

Figure 4 is a detail perspective view of one of the side stock guides shown in the preceding views, and with the attachment embodying my invention applied thereto;

Figure 5 is a detail perspective view of the end stock guide shown in the preceding

views, and having applied thereto another attachment embodying my invention.

Similar reference characters refer to similar parts in each of the several views of the drawing.

Referring specifically to the drawings, the conventional paper jogger is here shown as comprising a receiving table T to which the paper sheets from a printing press are successively delivered by means of feeding tapes F continuously movable over rollers R. The paper sheets are adapted to be stacked in vertical alinement upon the table T and as the sheets accumulate thereon the table moves step by step downwardly to accommodate the sheets, as will be understood. Above the table are three stock guides G, G' and G², which are adapted to be continuously reciprocated transversely for jogging the sheets as delivered to the table into vertically alined position.

The guide G² consists of a supporting plate 15 adjustably secured to a rod 16 by means of a clamp 17. The plate 15 carries subsidiary plates 18, and these plates are formed with slots 19 to receive screw bolts 20 by means of which an adjustment of the plates 18 with respect to the plate 15 will be effected for the purpose of increasing or decreasing the length of the guide. As shown in Figure 3, the plates 18 are formed with perforations 21 through which guide wires 22 are adapted to extend for the purpose of preventing the paper sheets as delivered from the press from flying upwardly. As shown in Figure 1, the wires are curved rearwardly and upwardly and formed with hooked ends 22^a which engage a rod 23' disposed above the feeding tapes F. The rod 16 is adapted to be reciprocated through a crank connection 23 with a shaft 24, the latter being oscillated by suitable mechanism. The rod 16 is provided with a V-shaped cam 25 having engagement with rollers 26 fixed on the ends of rods 27 normally urged in the direction of the cam by springs 28. Adjustably fixed to the rods by means of clamps 29 are the guides G and G', and these guides in the present instance consist of plates 30 which are disposed at

right angles to and at the opposite ends of the guide G^2 .

The attachment embodying my invention comprises resilient members secured to the confronting sides of the guides G , G' and G^2 . The members associated with the guides consist of plates 31, each of which includes an attaching portion 31^a secured to the corresponding plate 30, and an active portion 31^b offset with respect to the attaching portion and disposed in spaced parallel relation to the plate 30, all as clearly shown in Figure 4. An inclined connecting portion 31^c serves to connect the attaching portion with the active portion, and as the entire plate 31 is formed of resilient material it will be clear that the active portion 31^b is yieldingly supported upon the plate 30. As shown in Figure 4 the attaching portion 31 is extended rearwardly beyond the plate 30 and curved outwardly to provide a guide plate 31^d which extends between and above the rollers R , as clearly shown in Figure 1. The two guide plates 31^a co-operate to guide the paper sheets as delivered from the feeding tapes into proper position upon the receiving table T .

The stock guide G^2 is provided with members similar to the plates 31, but because of the construction of the guide member, as previously described, the members are in the form of two strips 32 of resilient material, and each strip comprising an attaching portion 32^a , an active portion 32^b and a connecting portion 32^c . These strips 32 are secured to the plates 18 and are designed to function in the same manner as the plates 31.

In the operation of the jogger the stock guides in their reciprocating movement normally operate to jog the paper sheets upon the table T and into vertically alined position, the confronting sides of the joggers having contact with the edges of the sheets in moving the latter into alined position. With the attachment in applied position to the guides they are interposed between the guides and the paper sheets so that as the guides move toward the sheets, the active portions 31^b and 32^b contact with the edges of the sheets and under the movement of the guides jog the sheets into vertically alined position. By virtue of the fact that the active portions 31^b and 32^b are yieldingly supported it will be clear that during movement of the guides they yield under the pressure exerted by the guides so as to graduate the jogging action of the guides and thus prevent bending or folding of the edges of the paper sheets, while at the same time moving the sheets into vertically alined position. By graduating the jogging action is meant a gradual application of the force exerted by the stock guides to the edges of the sheets so that the resistance

offered by the sheets will be gradually overcome in moving the sheets to alined position and thereby preventing bending or folding of the sheet edges.

Although I have herein shown and described only one form of attachment for paper joggers embodying my invention, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. In combination, a paper jogger having stock guides, means for actuating the guides, and yieldable means adapted to be interposed between the guides and sheets of paper to be jogged for graduating the jogging action of the guides whereby jogging of the paper sheets into alined position is insured.

2. In combination, a stock guide, and a resilient member on the active side of the guide, said member being adapted to yield when the guide is moved toward the paper sheet to be jogged to graduate the jogging action of the guide, for the purpose described.

3. An attachment for stock guides comprising a member of yieldable material connected thereto, and operable to graduate the jogging action of said guides.

4. An attachment for stock guides comprising a strip of resilient material adapted to be vibrated for graduating the jogging action of the guides.

5. An attachment for stock guides comprising a member of resilient material having an attaching portion adapted to be secured contiguous to the guide, and an active portion offset with respect to the attaching portion and spaced from the guide.

6. An attachment for stock guides comprising a member of resilient material having an attaching portion adapted to be secured contiguous to the guide, an active portion offset with respect to the attaching portion and spaced from the guide, and a guiding extension projecting from one end of the member for the purpose described.

7. An attachment for stock guides comprising a member of resilient material having an attaching portion adapted to be secured contiguous to the guide, an active portion offset with respect to the attaching portion and spaced from the guide, and a guiding extension projecting from one end of the member and curved outwardly.

8. In combination, a paper jogger comprising a pair of guides spaced apart and a third guide between and at right angles to the first guides, and resilient members on the confronting sides of the guides for the purpose described.

9. In combination, a paper jogger com-

prising a pair of guides spaced apart and a third guide between and at right angles to the first guides, a resilient member on each of the first guides, and a plurality of
5 resilient members on the third guide.

10. In combination, a paper jogger comprising a pair of guides spaced apart and a third guide between and at right angles to the first guides, a cushioning member on
10 each of the first guides, and a plurality of cushioning members on the third guide.

11. An attachment for paper joggors of the character described comprising a sheet of resilient material having vertically offset
15 portions, and a curved extension on one of the portions.

12. An attachment for stock guides comprising a resilient member adapted for vibration in unison with the jogging action of the guides.

13. In combination, a paper jogger and stock guide, and means on said guide adapted for vibration resultant of the jogging movement of said guides, for jogging the paper sheets into alined position.

14. In combination, a paper jogger having stock guides and means adapted for vibration by the actuation of said guides for jogging the paper sheets into alined position.

WALTER A. McGARVIN.