Jan. 15, 1946. N. E. GARRISON 2,392,983

MATCH-BOOK MAKING MACHINE

Filed Jan. 10, 1945

Fig. 2.

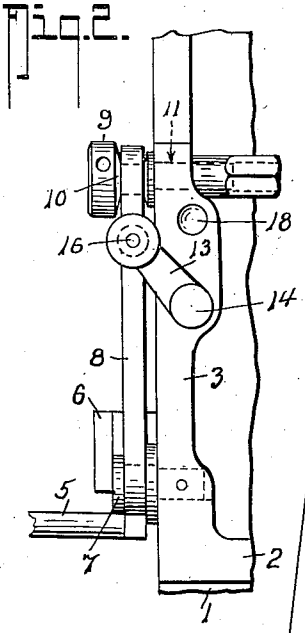
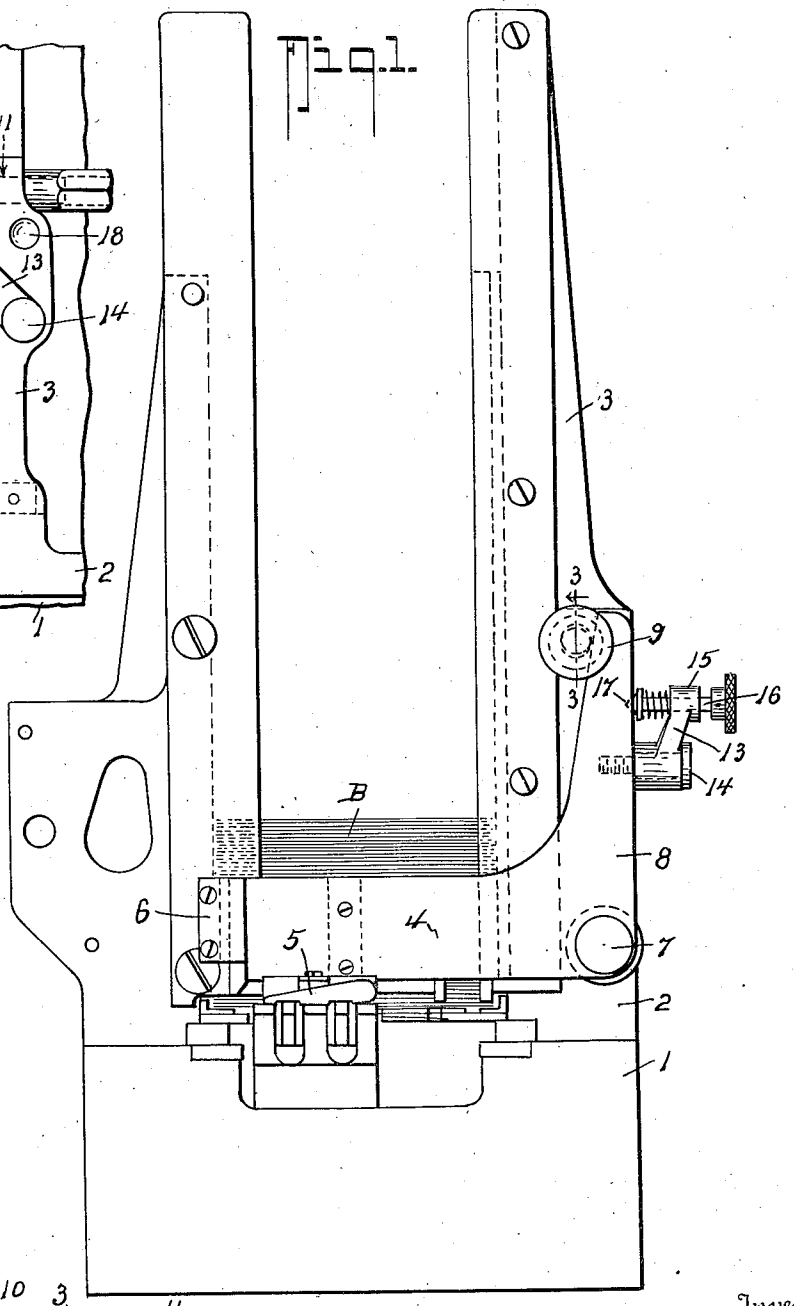


Fig. 1.



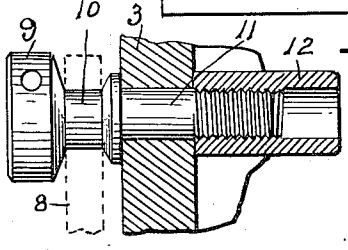


Fig. 3.

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MATCH-BOOK MAKING MACHINE

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3 Claims. (Cl. 93—2)

Match book making machines of the kind to which my invention is directed, each comprises, generally, a magazine for the covers (which magazine includes a gate that carries a first fold form and a slide for feeding the covers, one at a time beneath the gate and the first fold form and for pushing the first-folded cover off the first fold form onto a plate where it receives a section of a match comb), a mechanism for feeding the match comb to the covers and severing a section at a time from the comb, a means to effect the second fold of the cover, means to center the comb section in the cover and staple the cover and comb section together, a match-book-assembling mechanism and means to deliver the stapled books to the assembling mechanism.

My present invention relates to the magazine gate. In the machines of the type which I have sought to improve, the combined magazine gate and first fold form was provided with an adjustable stop and gage member against which an arm of the gate member rested with the force of gravity provided through the weight of the gate and first fold form. As the gate is a pivoted one, in time the pivot becomes loose so that the gate's position varies, after it has been adjusted, to a degree that interferes with its proper functioning. My invention hereinafter described has for its object to remedy this defect.

In general, the invention resides in providing a spring loaded latch device that is so mounted on the frame of the magazine that it may be swung and held out of the way when it is desired to free the gate and which will normally hold the gate firmly in any of its adjusted positions.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends the invention further resides in those novel details of construction, combination and arrangement of parts all of which will be first fully described and then be specifically pointed out in the appended claims, reference being made to the accompanying drawing in which:

Fig. 1 is an elevation of the magazine looking at the discharge or outlet side of the same.

Fig. 2 is a detail elevation showing my invention in the operative position.

Fig. 3 is a detail section on the line 3—3 of Fig. 1.

In the drawing in which like letters and numerals of reference indicate like parts in all the figures, 1 is a base on which the magazine proper 2 is mounted in any suitable way. The usual gate 4 is pivoted at 7 and carries the first fold form 5. A keeper 6 holds the free end of the gate snugly against the frame of the magazine, the other end of the gate being pivoted and having an arm 8 that projects upwardly from the pivot. The arm 8 normally lies with its free end in a groove 10 that has tapered sides in which the free end of the arm 8 lies. The groove 10 is formed in an adjustable stop 9 which has an eccentric shaft 11 passing through a hole in the frame extention 3 (Fig. 3) and secured by a nut 12.

Pivoted to the magazine frame at 14 is a latch device 13 having a bearing 15 in which is held a spring-pressed rod 16 preferably having a pointed end to enter a depression or recess 17 in the arm 8 when the latch is in its operative position, or to enter the recess 18 in the frame when the latch is swung clear of the gate arm 8.

By virtue of the tapered or bevelled groove and the spring loaded latch device the arm 8 will always be held in place when in use and the gate will be prevented from chattering or moving out of its proper position. The gate is raised or lowered for purposes of adjustment by turning the stop 9 as will be obvious on inspecting the accompanying drawing.

When the latch 13 is swung to a non-operative position the spring loaded rod 16 may have its operative end set in recess 18 where it will be held by spring pressure and thus will hold the latch from swinging back against the gate arm while the gate is being manually raised for the purpose of clearing away detritus or for any other purpose.

From the foregoing description taken in connection with the accompanying drawing it is thought the construction, operation and advantages of my invention will be clear to those skilled in the art.

What I claim is:

1. In a match-book making machine, a magazine for covers having a frame, a pivoted gate for controlling exit of covers from the magazine and including an arm carrying a first fold form and also including a second arm: the improvement which includes a gate-adjusting stop for said second arm; and a spring loaded latch device cooperating with said second arm for keeping said second arm in contact with asid stop and said gate from leaving its adjusted position.

2. The improvement of claim 1 wherein said stop is provided with an annular groove having bevelled sides to receive said second arm, said latch device being swingable clear of said second arm when desired.

3. The improvement of claim 1 wherein the latch device comprises a member pivoted to said frame and having a bearing, a spring-loaded latch rod held in said bearing and having an arm contacting end, said second arm having a recess to receive said end when the latch is in normal position, said latch device being swingable away from said arm when desired and said frame having a recess to receive said end when the latch device in not being used.

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