Aug. 13, 1935. F. A. LANE 2,011,001

TENTER LINK

Filed July 29, 1932

Fig. 1.

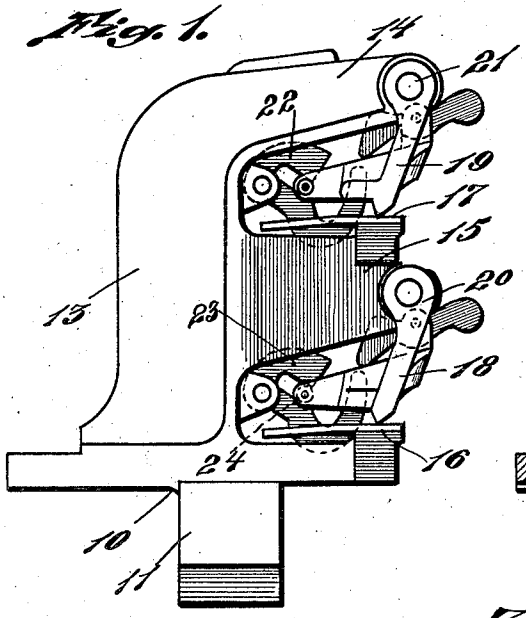


Fig. 2.

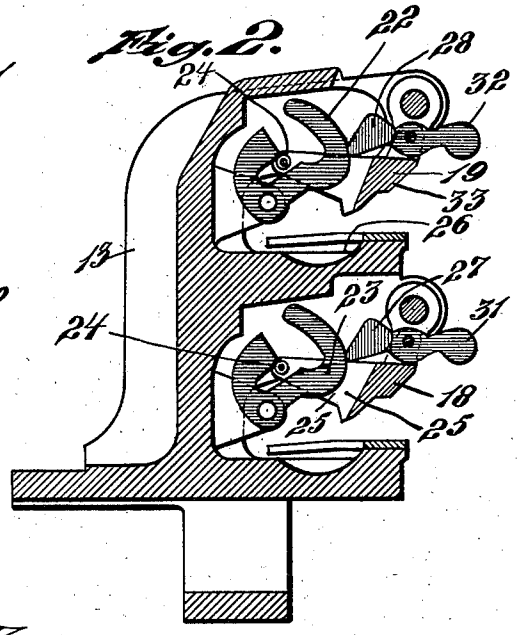


Fig. 3.

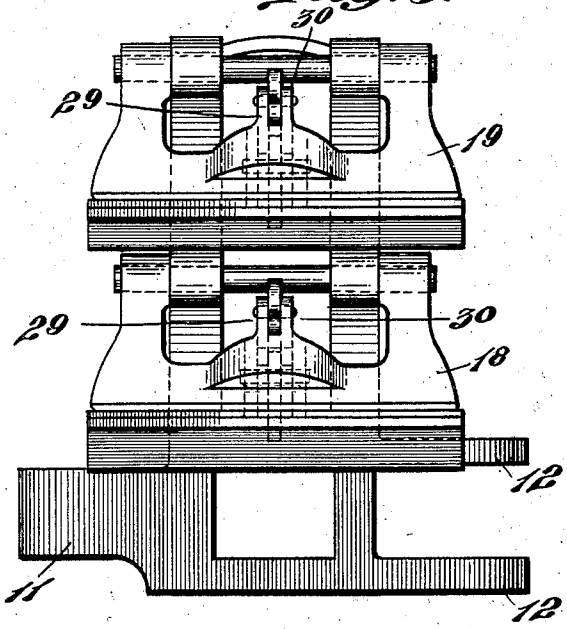


Fig. 4.

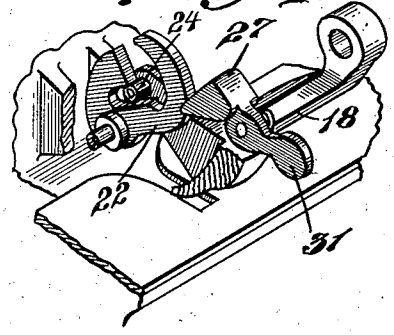
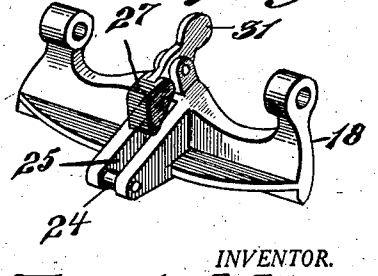


Fig. 5.



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UNITED STATES PATENT OFFICE

2,011,001

TENTER LINK

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Application July 29, 1932, Serial No. 625,827

8 Claims. (Cl. 26—62)

This invention relates to a tenter link or clip and has for one of its objects the provision of simple and effective means for releasably retaining the swinging jaw of the clip out of engagement with the fixed jaw during the return movement of the clip for another engagement with the traveling web of cloth.

Another object of this invention is the provision of a construction the jaw of which may be opened and released from open position from the face of the clip whereby a plurality of superimposed clips may be independently operated without interference with each other.

Another object of the invention is the provision of a construction for holding and releasing the swinging jaw as desired, and which will operate in conjunction with a plurality of superimposed swinging jaw structures independently of each other.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawing:—

Fig. 1 is a side elevation of a tenter link equipped with this invention.

Fig. 2 is a central sectional view thereof with the swinging jaws held in open position.

Fig. 3 is a face view, and

Fig. 4 is a perspective view with parts broken away showing the latch engaging the control member for maintaining the jaw in raised position.

Fig. 5 is a perspective view of the swinging jaw with the latch mounted thereon.

In the use of tenter chains it is frequently desirable to provide a construction whereby the swinging jaw is maintained out of engagement with the fixed jaw during the return of the link from its position of gripping the cloth. In some tentering machines there are used as tenter links constructions having superimposed means for separately gripping a plurality of traveling webs, one superimposed over the other, and in such constructions the known form of means for holding the jaws open during return movement cannot be used as they are mounted on the top and require releasing from the top of the link; and in order that the swinging jaw may be held open in a link having superimposed clips, I have provided a latch which is mounted on the swinging jaw and protrudes from the face thereof and which may be released by engagement with the arm of the latch protruding from the face as well as opened by engagement with the face, and thus each swinging jaw operates entirely independently of the other and any desired number of superimposed structures may be provided without interference with the latch mechanism; and the following is a detailed description of the present embodiment of this invention illustrating the preferred means by which these advantageous results may be accomplished.

With reference to the drawing, 10 designates the base of the tenter link which is provided with an ear 11 at one end thereof and a pair of ears 12 at the other end thereof spaced apart a distance to receive the ear 11 of another link and be attached thereto by the usual pivot pin (not shown) to connect the links in chain formation.

The superstructure on the body of this tenter chain link consists of a support 13 having an overhanging portion 14 and a shelf portion 15 between the body and the overhanging portion 14. The base portion provides one fixed jaw 16 while the shelf portion provides another fixed jaw 17 and cooperating with these fixed jaws there are pivotally mounted the swinging jaws 18 and 19, with the jaw 18 pivoted as at 20 to the lower portion of the shelf 15 and the jaw 19 pivoted as at 21 to the overhanging arm 14 of the support 13.

The swinging jaws are each hung to move by gravity towards their fixed jaws and are controlled in their swinging movement by the feeler members 22, 23 engaging the roller 24 provided on the rearwardly extending arms 25 of each of the swinging jaws. These control feeler members rest upon the cloth in the usual manner holding the jaw out of engagement therewith until the edge of the cloth passes beyond the edge of the feeler members and the slot 26 after which the jaw drops quickly into engagement with the fabric and retains it in the desired position.

In order that the swinging jaws 18 and 19 may be maintained in open engagement, as illustrated in Fig. 2, I have provided latches 27 and 28 on the swinging jaws 18 and 19 pivoted between the ears 29 and 30 provided on each swinging jaw with each latch of a sufficient length to engage the control member and prevent its falling by gravity when in raised position, as illustrated in Fig. 2. The latches 27 or 28 fall by gravity into engagement with the control member and by reason of the length of the parts their tendency each to fall by gravity causes tighter engagement and prevents dropping of either gate 18 or 19.

The latches are each provided with arms 31 and 32 which extend forwardly from the face of

the tenter link and by movement of this arm downwardly the latch is lifted permitting the control member to drop and the gate to fall so that the swinging jaws will engage the fabric or lower jaw as desired.

By the provision of a construction of this character with the arms **31** or **32** extending forwardly and at substantially right angles to the swinging jaw when in closed position, I provide a construction which may be utilized upon any number of superimposed clips on the chain link and be readily operable from the face thereof. Further, this construction does not interfere with a portion of the machine engaging the thickened portion **33** on the face of each of the jaws for opening the same from the face thereof.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:—

1. A tenter clip having a fixed jaw, a cooperating pivotally mounted swinging jaw, a latch pivotally mounted on the swinging jaw, between the pivot of said jaw and the gripping edge thereof means including a feeler member cooperating with the latch to hold the swinging jaw in open position, said latch provided with an arm protruding from the face of the swinging jaw to be engaged for tripping the latch for closing the swinging jaw.

2. A tenter clip having a fixed jaw, a cooperating pivotally mounted gravity actuated swinging jaw, a gravity actuated latch pivotally mounted on the swinging jaw, between the pivot of said jaw and the gripping edge thereof means comprising a feeler member cooperating with the latch to hold the swinging jaw in open position, said latch provided with an arm protruding from the face of the swinging jaw and at an angle to the plane of the same when in closed position to be engaged for tripping the latch for closing the swinging jaw.

3. A tenter clip having a fixed jaw, a cooperating pivotally mounted swinging jaw, a feeler member for controlling the closing movement of said swinging jaw, a latch pivotally mounted on said swinging jaw between the pivot of said jaw and the gripping edge thereof and engageable with said feeler member for maintaining the swinging jaw in open position.

4. A tenter clip having a fixed jaw, a cooperating pivotally mounted swinging jaw, a feeler member for controlling the closing movement of said swinging jaw, a latch pivotally mounted on said swinging jaw between the pivot of said jaw and the gripping edge thereof and engageable with said feeler member for maintaining the swinging jaw in open position, said latch having an arm protruding forwardly from the face of the swinging jaw to be engaged for tripping the latch to permit closing of the swinging jaw.

5. A tenter clip having a fixed jaw, a cooperating pivotally mounted gravity actuated swinging jaw, a feeler member for controlling the closing movement of said swinging jaw, a gravity actuated latch pivotally mounted on said swinging jaw between the pivot of said jaw and the gripping edge thereof and engageable with said feeler member for maintaining the swinging jaw in open position.

6. A tenter clip having a fixed jaw, a cooperating pivotally mounted gravity actuated movable jaw, a feeler member for controlling the closing movement of said movable jaw, a gravity actuated latch pivotally mounted on said movable jaw between the pivot of said jaw and the gripping edge thereof and engageable with said feeler member for maintaining the movable jaw in open position, said latch having an arm protruding beyond the face of the movable jaw to be engaged for tripping the latch to permit closing of the movable jaw.

7. A tenter link having superimposed fixed and swinging jaws, a latch mounted on each swinging jaw adjacent to the gripping edge thereof, means cooperating with each latch to hold the swinging jaw in open position, and an arm on each latch protruding from the face of the swinging jaw to be engaged to trip the latch for closing the swinging jaw, means positioned on said swinging jaw adjacent to the gripping edge thereof to be engaged for opening said jaw.

8. A tenter link having superimposed fixed and swinging jaws, a control member for each swinging jaw, a latch pivotally mounted on each swinging jaw adjacent to the gripping edge thereof and engageable with said control member for holding each jaw in open position, each latch having an arm extending forwardly from the face of the swinging jaw to be engaged to trip the latch for closing the swinging jaw.

FRANK A. LANE.