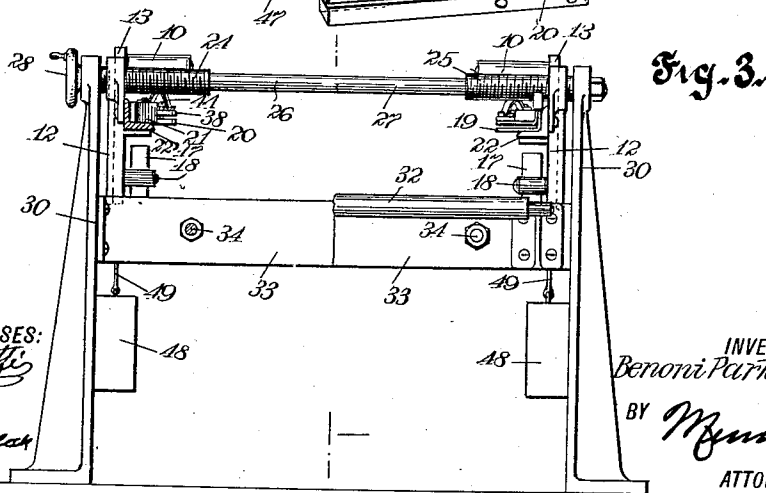
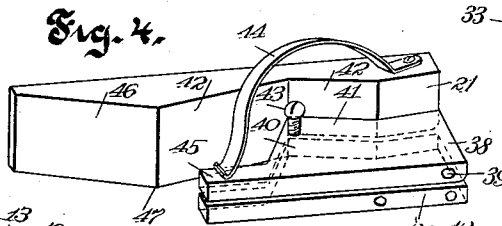
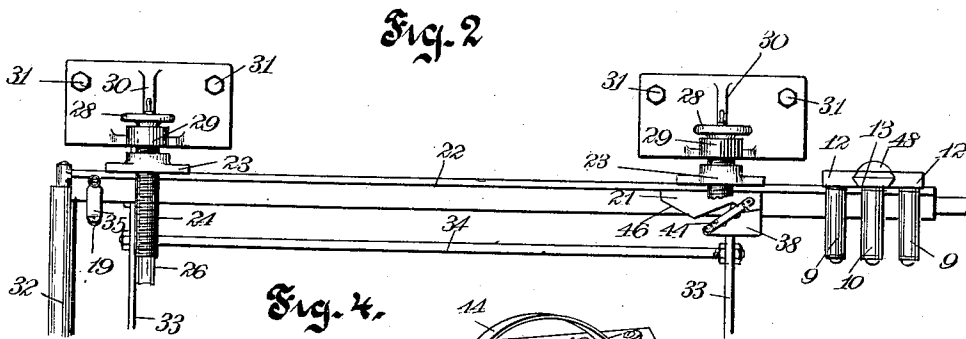
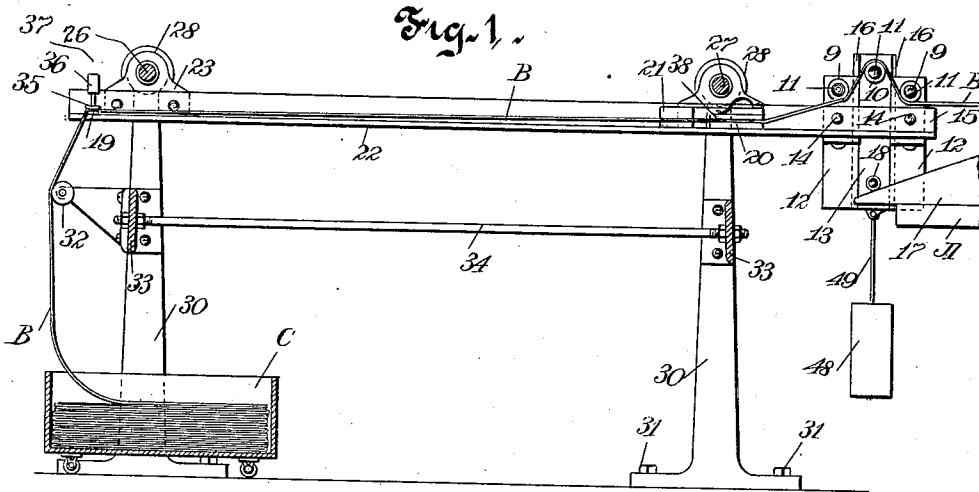


B. PARKINSON.
 FEED TABLE FOR TENTERING MACHINES.
 APPLICATION FILED MAR. 2, 1911.

1,008,193.

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WITNESSES:
Benoni Parkinson
E. M. Muddox

INVENTOR
Benoni Parkinson
 BY *M. Muddox*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

BENONI PARKINSON, OF EAST GREENWICH, RHODE ISLAND.

FEED-TABLE FOR TENTERING-MACHINES.

1,008,193.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed March 2, 1911. Serial No. 611,931.

To all whom it may concern:

Be it known that I, BENONI PARKINSON, a citizen of the United States, and a resident of East Greenwich, in the county of Kent and State of Rhode Island, have invented a new and Improved Feed-Table for Tentering-Machines, of which the following is a full, clear, and exact description.

The principal object of which the present invention has in view is to provide tension devices for feeding the cloth to the reciprocating bed of a tentering machine, and a take-up mechanism for lifting the slack of the cloth due to the return of the bed of the tentering machine constructed as mentioned.

With this object in view the invention consists in employing a frame adjustable laterally to accommodate cloths of various widths.

It further consists in furnishing the frame with tension devices to form a drag on the material being fed.

It further consists in employing a supporting frame for automatically diverting from the line of travel the material being fed to operate at a station between the tension devices and the bed of the tentering machine.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a longitudinal vertical section of a feed table constructed and arranged in accordance with the present invention; Fig. 2 is a detail view of a fragment of a table so constructed, showing one of the side rails thereof; Fig. 3 is an end elevation, partly cut away to show the duplication of the brace bars and spacing screws; and Fig. 4 is a detail view, on an enlarged scale and in perspective, of a guide and tension plate constructed and arranged in accordance with the present invention.

The present table is employed chiefly in connection with tentering machines the bed whereof is reciprocated to effect the feed of cloth thereto. It is during the reciprocation of the bed when extended to its outward position that the cloth is necessarily slacked. It is to take up this slack in the cloth that I have provided the two batteries of rollers 9, 9 and 10. The rollers 9, 9 and 10 are each mounted on pintles 11 to rotate thereon. The pintles 11 are secured in blocks 12, 12 and 13.

The blocks 12, 12 are pivotally mounted upon pins 14, 14 in a side bar 15 and at the end thereof adjacent the bed of the tentering machine. The blocks 12 are each grooved to receive one of the guide flanges 16 formed on the side of the block 13. The block 13 in this manner forms a connecting guide for the blocks 12, maintaining in conjunction with the pins 14 the parallel relation of the three blocks 12, 12 and 13.

On the end of the bed A of the tentering machine, and on both sides thereof, are mounted cams 17, 17. The cams 17 are disposed to extend below the roller 18 set out from the side of the block 13 to lift the said block, as shown in Fig. 1 of the drawings, when the bed A is moved outward in its feeding stroke. The pitch of the cams 17 is regulated to lift the roller 10 to take up the entire cloth slacked by the extension of the bed A. As the bed A returns on its inward stroke the cams 17 pass from under the roller 18, permitting the roller 10 to aline with the rollers 9, 9. The remainder of the inward stroke of the bed A draws the cloth over the guide plates 20 and past the edge of the guide blocks 21.

The plates 19 and 20 and the guide blocks 21 are rigidly secured upon the side bars 22 of which there are two. The side bars 22 are provided with extensions 23, the upper ends whereof are screw threaded to receive the threaded sections 24 and 25 of the two adjusting rods 26 and 27. The threads on the sections 24 and 25 and upon each of the rods 26 and 27 are pitched in opposite directions. Each of the rods 26 and 27 is provided with a hand manipulating wheel 28. By manipulating the wheels 28, 28 and the rods 26 and 27 connected therewith it is obvious that the side bars 22, 22 are drawn toward or separated from each other. In this manner is accommodated cloths of various widths.

The rods 26 and 27 are supported in bearings 29 formed at the upper ends of standards 30. The standards 30 are secured by means of bolts 31, or other suitable fastening devices, to the floor supporting the tentering machine. The standards 30 are separated sufficiently to admit of the box truck C being extended between, as indicated in Fig. 1 of the drawings. The truck C holds the cloth B so that the same is fed over the roller 32 in passing to the plates 19. The standards 30 are rendered rigid by cross

braces 33 and the tie rod 34 extended therebetween.

To place the slight tension on the stretch of the section of cloth B which extends from the plates 19 to the plates 20 a holding foot 35 is provided to rest upon the cloth to lightly force the same upon each of the plates 19. The guide bracket 36 is provided to receive the stem 37 of the foot 35, as shown best in Fig. 1 of the drawings.

In usual practice I depend upon the weight of the foot 35 and parts connected therewith to form a drag on the material when stretched between the plates 19 and 20. It will be understood, however, that if desired a suitable spring may be added to the stem 37 to form a yielding pressure adapted to permit the passage of cloths of various thicknesses.

The tension produced on the cloth B between the tentering machine and the feed table is by the tension plate 38. The plate 38 is pivoted on a shaft 39 extended from the block 21. The plate in other respects than the said mounting is loose and rests upon the plate 20, as shown in Fig. 4 of the drawings. Both plates 20 and 38 are provided with lateral extensions 40 and 41. The extensions 40 and 41 are removed from the path of the cloth B within the lateral recesses formed by the inwardly inclined surfaces 42, 42 of the block 21. At the inner corner of the extension 41 of the plate 38 is provided a set screw 43 by the manipulation of which the approximation of the plate 38 to the plate 20 may be regulated and thereby increase or diminish the tension grip on the material passing between the two plates. The tension referred to is produced primarily by a spring 44, the free end whereof rests upon the nose 45 of the plate 38 and is anchored upon the block 21, as shown best in Fig. 4 of the drawings.

The guide block 21 is provided with an extended cam surface 46. The peek 47 of the cam thus formed on each of the blocks 21 extends within the path of the cloth B to bear upon the edge thereof and to wrinkle the cloth at this point. In so wrinkling the cloth it is caused to drag over the nose 45 of the plate 38 to augment the grip of the tension plate 38. It will be found in the operation of this device that a fold of cloth B is formed adjacent to the nose 45 which extends into the recess formed by the surfaces 42, 42 in the block 21.

In the accompanying drawings I have shown the weights 48 attached by means of a cable 49 to each of the blocks 13 for depressing the said blocks when not lifted by the cams 17. It will be understood that springs might be substituted for the weights 48, said springs being connected to the side bars 15 or the blocks 13 as in the opinion of the constructor seems best.

The operation of the device is as follows: The truck C is rolled into position, as shown in Fig. 1 of the drawings, and the end of the cloth B is raised from the same, passed over the roller 32 and threaded between each of the plates 19 and the foot 35, extended forward and passed between each of the plates 20 and the tension plates 38, and thence threaded under the first of the rollers 9, over the roller 10 and under the second roller 9, from whence it is secured in the grippers of the tentering machine. In this position the tentering machine is operated, the outward stroke of the bed carrying the cams 17 under the rollers 18 to lift the blocks 13 and roller 10 carried thereby, which action takes up the slack material caused by the return of the bed A toward the feed table. The tentering machine having resumed the under grip of the cloth B the bed A is again carried from the feed table, removing the cams 17 from under the rollers 18, permitting the weights 48 to drop the blocks 13 and the rollers 10 carried thereby. When in this manner the surplusage of cloth is taken up by the tentering machine the said cloth is drawn from the truck C over the rollers 32, plates 19 and 20, and under the tension plate 38. The tension plate 38 is set to produce the proper tension on the cloth to prevent too free feed thereof. On the return of the bed A toward the feed table the action lifting the rollers 10 as above described is repeated.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A feed table for tentering machines, comprising a guide frame; a plurality of tension devices mounted on said frame to hold the edge of the cloth being fed to the tentering machine; a plurality of cams adjacent the tentering machine on the receiving side thereof to deflect inward the cloth being fed to the tentering machine and supporting guides for the said cloth adjacent said tension devices and interposed between the same and the tentering machine.

2. In a feed table for tentering machines, tension devices comprising a fixed plate; a movable plate pivotally mounted to rest upon the said fixed plate; pressure means for forcing said movable plate toward said fixed plate; and a screw threadably mounted in one of said plates extensible in the path of to impinge upon the other of said plates.

3. In a feed table for tentering machines having tension devices, a plurality of guide rollers disposed in guiding relation to the cloth being fed, said rollers being disposed to receive the cloth on opposite sides thereof; and means for forcing certain of said rollers against the cloth out of line with the other of said rollers.

4. In a feed table for tentering machines

having tension devices, a plurality of guide rollers disposed in guiding relation to the cloth being fed, said rollers being disposed to receive the cloth on opposite vertical sides
5 thereof; and a cam mounted on the reciprocating bed of said tentering machine adapted to extend under certain of said rollers to lift the same above the path of the cloth being fed to lift the said cloth.

10 5. In a feed table for tentering machines, a take-up mechanism comprising two fixed rollers to extend over the cloth being fed; a vertically slidable frame interposed between

said rollers; a third roller mounted on said frame to extend under the cloth being fed; 15 and a cam mounted on the reciprocating bed of the tentering machine to extend under and lift the third roller and the cloth carried thereby.

In testimony whereof I have signed my 20 name to this specification in the presence of two subscribing witnesses.

BENONI PARKINSON.

Witnesses:

JOHN G. MUNMY,
MINNIE B. LOOMIS.

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