Sept. 16, 1947. R. G. TURNER 2,427,538

PNEUMATIC THREAD HOLDER FOR LOOMS

Filed Nov. 3, 1945 2 Sheets-Sheet 1

Fig. 1

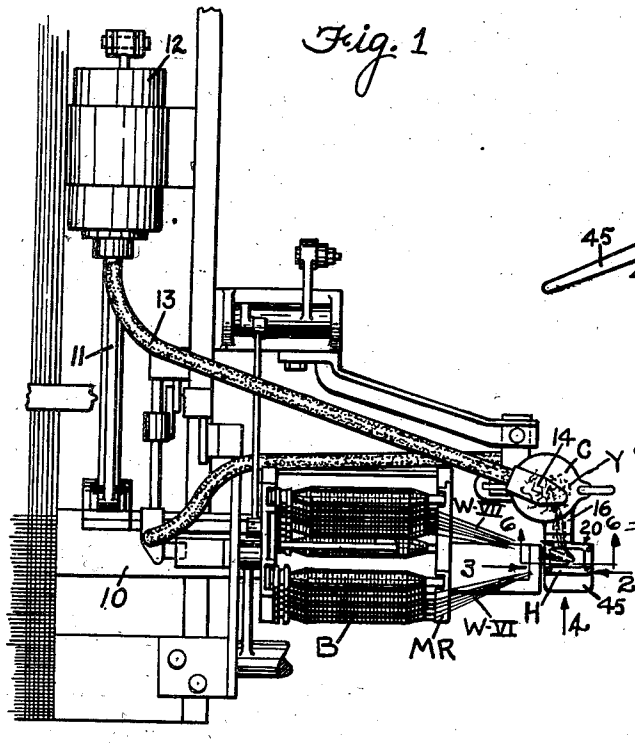


Fig. 2

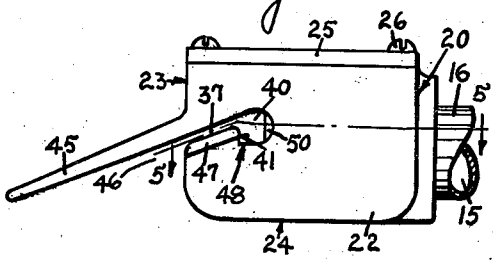


Fig. 4

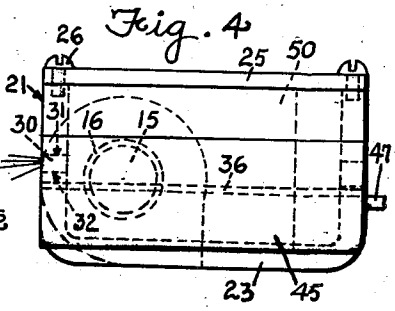


Fig. 3

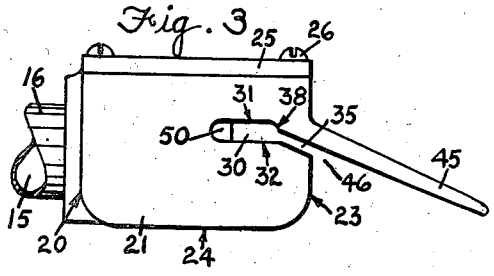


Fig. 5

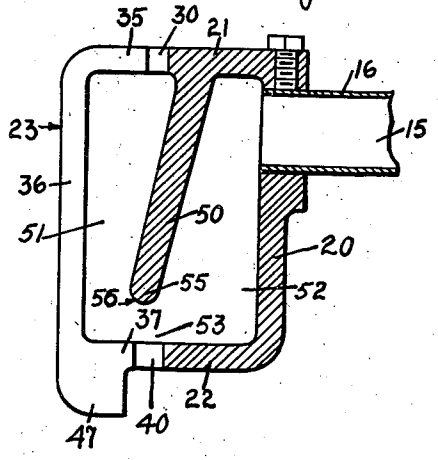
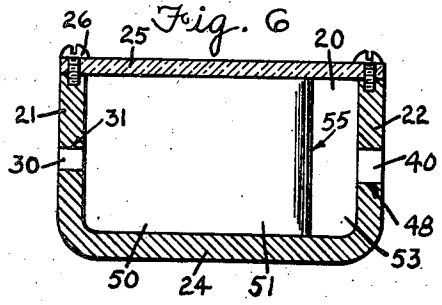


Fig. 6



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PNEUMATIC THREAD HOLDER FOR LOOMS

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Fig. 8

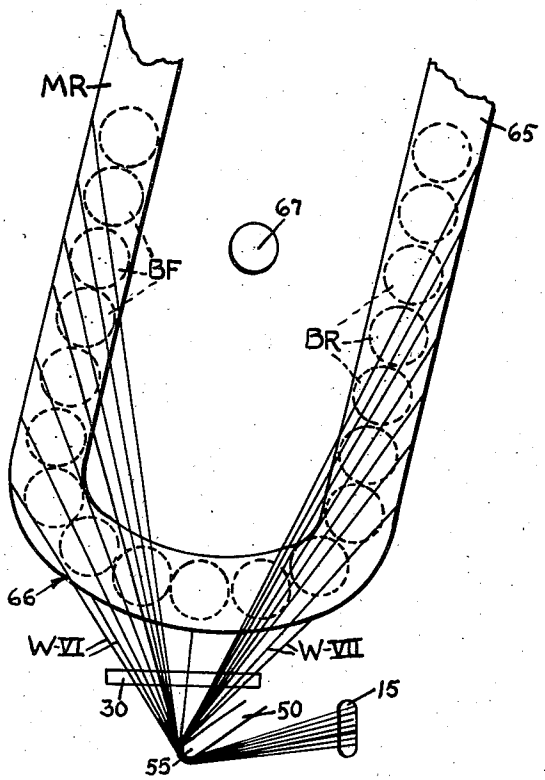
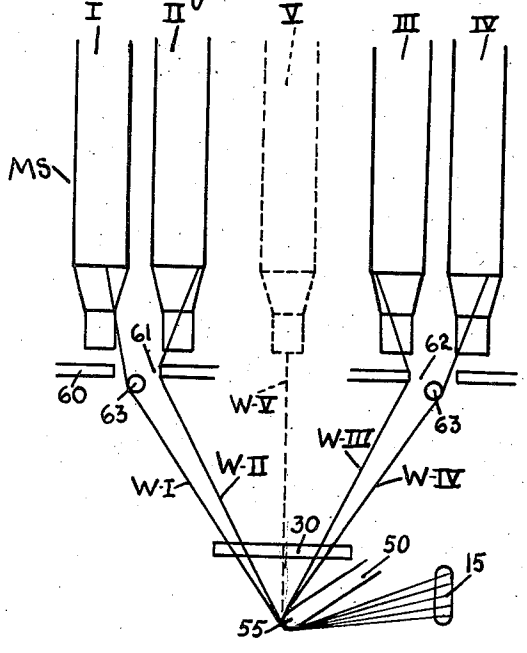


Fig. 7



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PNEUMATIC THREAD HOLDER FOR LOOMS

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Application November 3, 1945, Serial No. 626,462

27 Claims. (Cl. 139—247)

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This invention relates to improvements in pneumatic thread holders for the weft ends of reserve bobbins in weft replenishing looms and it is an important object of the invention to provide a thread holder having an intake mouth so formed that the thread of a bobbin involved in a replenishing operation can move readily to an unobstructed part of the intake mouth.

In pneumatic thread holders heretofore proposed the intake mouths have had curved contours with the result that all of the threads or weft ends tend to group or bunch together and hold the thread connected to the transferred bobbin so that the latter thread cannot be readily drawn through the mouth. It is an important object of my present invention to provide an intake mouth the upper contour of which is substantially straight so that the weft ends will distribute themselves in a thin layer across the top of the mouth and permit the weft end of a transferred bobbin to detach itself and move downwardly toward the bottom of the intake mouth from which position it can be drawn readily into the mouth by suction.

The means for supplying subatmospheric pressures in looms of the type to which my invention is applicable ordinarily becomes inoperative when the loom stops. Reserve bobbins are placed in the magazine from time to time to replace those used in preceding replenishing operations, and this replacement can occur when the loom is at rest. The weft ends of such bobbins are therefore not drawn into the holder as heretofore constructed and may be displaced before loom operation is resumed.

It is another and important object of my present invention to construct the pneumatic thread holder in such a manner that the weft ends of bobbins placed in the magazines during loom stoppage can be positively moved into the thread holder and its intake mouth where they will be held to be acted upon by the air stream when the loom is again operated. In carrying this feature of my invention into effect I provide an inclosed hollow structure having a narrow thread slit or slot through which the weft ends can be passed to the interior of the holder. This slot communicates with the intake mouth, but to reduce air leakage to a minimum the slot is wide enough to pass only a few threads at a time. In order that the weft ends which pass through the slot in small groups may all be drawn into the thread holder at one time I provide a thread orifice at the end of the slot opposite to the intake mouth.

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It is a further object of the present invention to have the aforesaid slot communicate with the bottom of the intake mouth in such manner that a wall in the upper forward part of the intake mouth will prevent the weft ends from accidentally slipping through the slot and becoming unthreaded from the thread holder.

In previous pneumatic thread holders the several weft ends have converged at the intake mouth, causing the aforesaid objectionable grouping or bunching. In the present instance I provide a baffle plate located within the thread compartment and spaced beyond the mouth so that the weft ends will converge toward said baffle and be spread out at the mouth. This feature is useful on both stationary and angularly movable magazines. The baffle produces a sharp bend in the threads extending from the intake mouth to the passage leading to the thread collector, and is preferably rough to provide a friction surface which will offer resistance to reverse slippage of the threads out of the intake mouth at the time of picking. This feature is particularly useful when hairy weft is being used.

With these and other objects in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts hereinafter described and set forth.

In the accompanying drawings, wherein a convenient embodiment of my invention is set forth,

Fig. 1 is a top plan view of my improved thread holder and associated parts in a loom provided with a rocking magazine,

Fig. 2 is an end elevation of the outer side of the holder looking in the direction of arrow 2, Fig. 1,

Fig. 3 is a view similar to Fig. 2 but showing the inner side looking in the direction of arrow 3, Fig. 1,

Fig. 4 is a front elevation of the thread holder looking in the direction of arrow 4, Fig. 1,

Fig. 5 is a horizontal section on line 5—5 of Fig. 2,

Fig. 6 is a vertical section on line 6—6, Fig. 1,

Fig. 7 is a diagrammatic view showing thread and intake mouth relationships existing when used with a multicolor stationary magazine, and

Fig. 8 is a view similar to Fig. 7 but showing a rocking magazine.

Referring particularly to Fig. 1, the horizontally reciprocating lay 10 is attached by a connector 11 to an air pump 12 from which extends forwardly a hose or pipe 13 attached to the top 14 of a thread collector designated generally at C. This collector is supported in any suitable

manner on the loom and has the lower part thereof provided with a forwardly extending thread passage 15 defined in part by a tube or pipe 16 secured to the collector. The magazine MR of the rocking type, described in more detail hereinafter, is provided with reserve bobbins B from which extend front and back groups W—VI and W—VII, respectively, of weft ends to the thread holder designated generally at H. The weft ends are ordinarily inclined downwardly from their respective bobbins toward the thread holder, but at the time of transfer the selected bobbin is lowered into the shuttle and its thread end moves downwardly away from the other weft ends. The pump 12 creates subatmospheric pressure in the passage 15 during backward movement of the lay but is ineffective to create such pressures when the lay is moving forwardly. This is not an essential feature of the invention but is characteristic of the source of subatmospheric pressures shown in Fig. 1 and set forth in certain of my prior patents. It is apparent that when the loom is stopped and the lay is at rest the pump will be idle and unable to create suction or reduced air pressure within the collector and passage 15.

The matter thus far described is of common construction and may be as set forth in my prior Patent No. 2,199,353.

In carrying my present invention into effect I make the thread holder H as an inclosed hollow structure having a back vertical wall 20, inner and outer side walls 21 and 22, respectively, and a front wall 23. These walls are continuous with each other and are preferably made integral with the bottom 24 of the holder. The top of the holder is preferably closed by a transparent cover 25 held in place by screws 26 and closely fitting the various walls.

As viewed in Fig. 3 the inner side wall 21 is provided with an elongated horizontal intake mouth 30 having a top or upper edge or thread engaging surface 31 which is substantially straight and not curved as in previous thread holders. The bottom of the intake mouth 30 is defined by an edge 32 conveniently made straight and parallel to the edge 21, although this relationship is not essential. The weft ends extend diagonally down into the intake mouth 30 and lie along the top edge 31, being distributed along its length so as to be spread out in a thin layer only a few threads deep.

The inner side wall 21 has cut therein a narrow thread slit or slot 35 extending downwardly and forwardly from the lower front corner of the intake mouth 30 and connects with a similar thread slot 36 in the front wall 23. The outer wall 22 has extending therethrough a thread slot 37 communicating with slot 36. The slots 35, 36 and 37 in effect form a single thread slot lying in a plane so they can be produced by a single cutting operation. A small thread retaining front edge or wall 38 extends upwardly from slot 35 to the top edge 31 of the intake mouth for the purpose of limiting forward movement of the weft ends in the intake mouth.

As shown in Fig. 2 the outer wall 22 is provided with a thread orifice 40 which extends downwardly from the slot 37 and has a front edge or wall 41 extending below slot 37. The orifice 40 is preferably located intermediate the front and back ends of the intake mouth 30 and may be of about the same height as the latter, but will preferably be of less cross-sectional area than the mouth 30.

A thread guiding fin or lip 45 is preferably cast integral with the front wall 23 above slot 36 and extends downwardly and forwardly as indicated in Fig. 3 to provide an entrance mouth 46 for the weft ends of reserve bobbins being placed in the magazine. If desired the outer wall 22 may have extending laterally therefrom a thread shelf or guard 47 extending below slot 37 but having its upper surface terminating at the wall 41 and located above the bottom 48 of the orifice 40.

Cast integral with the box-like structure or casing forming the thread holder is a baffle plate or snubber 50 which serves as a thread guide and extends upwardly from the bottom 24 and is finished on its upper edge to have a close fit with the cover 25 to prevent air leakage. The baffle defines front and back thread compartments 51 and 52, respectively, connected by a relatively narrow thread passage 53 located between the baffle and outer wall 22 adjacent to the orifice 40. The baffle is integral with the inner side wall 21 and requires a stream of air entering the intake mouth 30 to pass to the right as viewed in Fig. 1 through compartment 51, then through the narrow passage 53, and then to the left in compartment 52 to the air passage 15. The aforesaid tube or pipe 16 permits angular adjustment of the holder around the axis of passage 15 so that intake mouth 30 can be raised or lowered to change its relation with the magazine and baffle.

In operation, fresh bobbins are inserted into the magazine two or three at a time, their weft ends being drawn to the right as viewed in Fig. 1 and held by the attendant under the guide fin 45 and then moved upwardly and rearwardly through the thread receiving notch 46 and through the thread slots 36 and 35 and 37 into the interior of thread compartment 51. During this operation the left ends of the weft threads will move along slot 35 to the intake mouth, while their right ends will move along slot 37 to the orifice 40. This operation is repeated several times until the magazine is full of bobbins. The outer or right ends of the threads are released by the attendant as soon as they are in place, and if the loom is in operation the weft ends will be immediately drawn into the orifice 40 and along the compartment 52 to the thread passage 15. If, however, the loom should be temporarily stopped during this threading operation, all of the weft ends will fall to the bottom 48 of the orifice 40 and remain there until loom operation is resumed, whereupon the ends will be drawn upwardly through the orifice and into the holder H and move through passage 15 to become entangled with a mass Y of yarn already in the collector due to previous threading operations. The wall 41 and guard 47 act to guide the weft ends toward the orifice and prevent them from being drawn into slot 37.

It will be noted particularly from Figs. 1 and 5 that the baffle 50 is provided with a rounded end 55 around and in engagement with which the weft ends must pass as they extend from the intake mouth 30 to the thread passage 15. This surface 55 is preferably roughened or provided with a friction surface 56 when the thread holder is to be used with coarse hairy yarn. A convenient way to manufacture the thread holder is by a simple green sand casting operation, in which event the rounded wall 55 will be left rough, but if the holder is made by a die casting

operation it may then be desirable either during the casting or subsequent thereto to provide the baffle with a roughened friction surface.

The upper or top surface or edge 31 of the intake mouth 30 is an important feature of my present invention as will be apparent from Figs. 7 and 8 which show the application of my invention respectively to a stationary and a rocking magazine. Referring to the diagrammatic showing in Fig. 7, the stationary magazine MS has an outside end plate 60 provided with two thread slots 61 and 62 and vertical rods 63 depend from the upper part of the magazine end plate, each being parallel to its associated thread slot. As indicated diagrammatically in Fig. 7 there are four stacks of bobbins I, II, III and IV arranged in two pairs, the stacks I and II being the front pair and having their weft ends W—I and W—II leading through the slots 61 and being divided by the front rod 63. The second pair of stacks III and IV have their weft ends W—III and W—IV extending through the slot 62 and separated by the rear rod 63. These groups of weft ends extend downwardly to and enter the intake mouth 30 and then pass inwardly and converge toward the end 55 of the baffle or snubber 50 as they lead toward the thread passage 15. Due to the fact that the upper edge of the intake mouth is straight and substantially horizontal the weft ends from the several stacks are distributed along said upper edge as is apparent in Fig. 7. It will be understood that there are several bobbins in each of the stacks and that the weft ends of each stack will be spread out along the corresponding part of the upper edge 31 of the intake mouth. When a bobbin from any of the four stacks moves to transfer position indicated at V, Fig. 7, its weft end W—V will move toward the horizontal center of the intake mouth to become disassociated from the other weft ends, and when this bobbin is transferred into the shuttle its weft end will extend downwardly from the thread holder toward the magazine.

Fig. 8 indicates diagrammatically the application of my invention to a loom having a rocking type of magazine MR in which the forward stack of reserve bobbins BF feed by gravity toward a transfer position at the bottom and near a point under the center of the magazine, while the rear stack of bobbins BR feed downwardly by gravity and have their lowest bobbin just behind the lowest bobbin in the front stack.

The outside frame 65 of the magazine MR is made more or less as shown in Darwin Patent No. 2,381,725, and is provided with a continuous curved thread guiding surface 66 along the under side thereof and the weft ends extend from the bobbins outwardly away from the magazine pivot 67 and around the outside edge of the plate 65 and thence through the intake mouth to the part 55 of the baffle 50. The magazine MR is ordinarily tilted to one side with the upper part of the path traversed by the bobbins as they move toward transfer position being inclined downwardly and forwardly, while the lower part of the path is bent or curved toward a point under the pivot 67. Ordinarily the lowest bobbin of the rear stack is in position for transfer, but if transfer is to take place from the front stack the magazine is rocked by a mechanism not shown herein so that the lowest bobbin BR will be in transfer position.

As indicated in Fig. 8 the front weft ends W—VI leading downwardly from their bobbins are spread out along the left hand end of the upper part of the intake mouth, the lowest bobbins BF having their weft ends spaced from the left end of the mouth and occupy a comparatively unobstructed part of the intake mouth. A similar condition exists with respect to the weft ends W—VII from the bobbins in the rear stack, the lowest weft ends being adjacent to the longitudinal center of the mouth. In order to prevent bunching of the weft ends at the ends of the intake mouth the latter may be extended slightly beyond the zones occupied by the weft ends as they converge toward the baffle. This feature can also be present for the stationary magazine, as shown in Fig. 7. Fig. 8 indicates that the intake mouth when made as set forth hereinbefore affects a considerable distribution of the weft ends when used in connection with the rocking magazine.

From the foregoing it will be seen that I have provided a simple and efficient type of thread holder having an intake mouth the upper contour of which is substantially straight and preferably horizontal for the purpose of distributing the weft ends leading from the reserve bobbins in the magazine, hence the weft end of a transferred bobbin will be able to detach itself and move downwardly from the other weft ends in mouth 30. When drawn into the intake mouth the thread moves along passages 51, 53 and 52 to the collector C, going around the baffle 50 and being aided in its passage through compartment 52 by a small stream of air entering the orifice 40 and directed toward the passage 15. The thread slot is very narrow, being only wide enough to pass a few threads at a time, and does not cause any serious leakage or reduction of efficiency in the operation of the thread holder. Furthermore, the mouth or orifice 40 will hold the threads in the compartment 52 if bobbins have been placed in the magazine during a period of idleness of the loom. Guard 47 is close to wall 41 so that any threads which may be drawn upwardly toward the orifice will be directed toward the latter and be prevented from entering the slot 37. The baffle may have a roughened surface 56 when used with coarse yarns, but this feature is not essential in all uses to which my invention may be put. Furthermore, when used with either a stationary or rocking magazine the weft ends converge toward the baffle and are distributed along the top edge 31 so that the thread of a transferred bobbin can be easily detached from the remaining weft ends. Also, the curved or bent lower part of a magazine, as in Fig. 8, facilitates the aforesaid distribution, and in a stationary magazine the several groups of weft ends are distributed due partly to horizontal spacing of the several stacks.

Having thus described my invention it will be seen that changes and modifications may be made therein by those skilled in the art without departing from the spirit and scope of the invention and I do not wish to be limited to the details herein disclosed, but what I claim is:

1. A pneumatic thread holder for weft ends extending from a bobbin magazine, said holder comprising an inclosed casing having a thread compartment in which subatmospheric pressures can be created, said casing having a weft end receiving intake mouth to face toward the magazine and communicating with the compartment at one end thereof, said casing having an orifice therein at the other end of the compartment to face away from the magazine, and said casing having a thread slot therein connecting the

mouth and orifice and communicating with the compartment.

2. In a pneumatic thread holder for weft ends extending from a bobbin magazine, an inclosed casing having a thread compartment therein in which subatmospheric pressures can be created, a wall forming part of the casing in front of the compartment, a side wall adjacent to the magazine at one side of the compartment and having a weft end receiving mouth therein, and a second side wall forming part of the casing remote from the magazine at the opposite side of the compartment and having a thread orifice therein, the front and side walls having connecting thread slots therein through which weft ends may be passed into the compartment, mouth and orifice.

3. In a pneumatic thread holder for weft ends extending from a bobbin magazine, a casing having a front wall and side walls one adjacent to the magazine and the other remote from the magazine, said casing having a thread compartment therein in which subatmospheric pressures can be created, said one wall having a weft end intake mouth therein communicating with the compartment, the other wall having a weft end orifice therein also communicating with the compartment, and the front wall and side walls having therein a thread slot connecting the mouth and orifice and communicating with said compartment.

4. In a pneumatic thread holder for weft ends extending from a bobbin magazine, means defining an inclosed thread compartment in which subatmospheric pressures can be created and having two spaced openings therein each communicating with the compartment, said means having a part thereof extending forwardly of said openings and having a weft end slot therein communicating with the compartment and connecting said openings.

5. In a pneumatic thread holder for weft ends extending from a bobbin magazine, means defining an inclosed thread compartment in which subatmospheric pressures can be created and having two spaced thread receiving openings therein each communicating with the compartment, one of said openings facing the magazine and extending horizontally in said means, the other opening facing away from the magazine and extending vertically in said means, and said means having therein a weft end receiving slot extending from the bottom of said one opening and the top of said other opening and communicating with said compartment.

6. In a pneumatic thread holder for weft ends extending from a bobbin magazine, hollow means having an opening therein facing the magazine to receive the weft ends and having another opening therein facing away from the magazine, said means having therein a thread compartment in which subatmospheric pressures can be created and extending forwardly from a straight line passing through said openings, and said means having a thread slot in the forward part thereof connecting said openings and communicating with said compartment.

7. In a pneumatic thread holder for weft ends extending from a bobbin magazine, hollow means having an opening therein facing the magazine to receive the weft ends and having another opening therein facing away from the magazine, said means having therein a thread compartment in which subatmospheric pressures can be created, part of said compartment extending laterally from a straight line passing through said openings, and said means having a thread slot therein connecting said openings and communicating with said part of said compartment.

8. In a pneumatic thread holder for weft ends extending from a bobbin magazine, means defining an inclosed thread compartment in which subatmospheric pressures can be created and having two spaced openings therein each communicating with the compartment, said means having a part thereof provided with a weft end receiving slot open to the atmosphere on the outer side thereof and communicating with the compartment on the inner side thereof and connecting said openings.

9. A pneumatic thread holder having a thread compartment in which subatmospheric pressures can be created and provided with thread mouths opening into opposite sides thereof, said openings being connected by a thread slot also opening into the compartment.

10. In a loom having a multi-stack reserve bobbin magazine from which weft ends extend in groups, a hollow pneumatic thread holder having therein an elongated thread intake mouth formed with a substantially straight horizontal upper edge, a baffle within the thread holder for engagement with said weft ends, and means creating subatmospheric pressures within said holder causing said groups of weft ends to converge toward the baffle, said baffle due to the position thereof relatively to the upper edge of said intake mouth and the magazine causing said weft ends to be distributed along said upper edge of the intake mouth.

11. In a loom having a multi-stack reserve bobbin magazine from which weft ends extend in groups, a hollow pneumatic thread holder having therein an elongated thread intake mouth formed with a substantially straight horizontal upper edge, a baffle within the thread holder for engagement with said weft ends, and means creating subatmospheric pressures within said holder causing said groups of weft ends to converge toward the baffle, said baffle due to the position thereof relatively to the upper edge of said intake mouth and the magazine causing said weft ends to be disposed along said upper edge of the intake mouth between the ends of said upper edge.

12. In a weft replenishing loom having a magazine in which bobbins move downwardly toward transfer position along a curved path, a pneumatic thread holder having a thread compartment in which subatmospheric pressures exist, a baffle in said thread compartment, said thread holder having an intake mouth between the baffle and the magazine formed with a substantially straight upper edge, and thread guide means on the magazine causing the weft ends of the bobbins in the magazine to traverse a curved path as the bobbins corresponding thereto move toward transfer position, said weft ends converging toward said baffle and being distributed along the upper edge of said intake mouth.

13. In a weft replenishing loom having reserve bobbins from which weft ends extend, thread guide means on the magazine causing said weft ends to move along a curved path as their bobbins approach transfer position, a pneumatic thread holder having a thread compartment in which subatmospheric pressures exist, a thread baffle within said holder, and said thread holder having an intake mouth the upper edge of which is substantially straight, the weft ends entering

the mouth and converging at the baffle and being distributed along said upper straight edge at the intake mouth, said thread guide and intake mouth being so related that as the bobbins move toward transfer position the corresponding weft ends move toward the horizontal center of the upper edge of the intake mouth.

14. In a weft replenishing loom having a reserve bobbin magazine provided with a group of bobbins which due to successive replenishing operations of the loom move downwardly along a path the upper part of which is substantially straight and downwardly inclined and the lower part of which extends inwardly toward a point under the magazine, a pneumatic thread holder having a thread compartment in which subatmospheric pressures exist, a thread guide within said thread holder, and said holder having an intake mouth for the weft ends of the bobbin constructed with a substantially straight horizontal upper edge located between said thread guide and the magazine, the weft ends of the several bobbins in the magazine due to the shape of the path traversed by the bobbins entering said intake mouth and being distributed along said straight upper edge and converging toward said thread guide.

15. In a weft replenishing loom having a plurality of vertical stacks of reserve bobbins from which weft ends extend, said stacks being horizontally spaced and said weft ends being inclined downwardly and away from the reserve bobbins, a pneumatic thread holder having a thread compartment in which subatmospheric pressures exist, a thread guide within said compartment, and said holder being formed with an intake mouth the upper end of which is substantially straight and horizontal and located between said thread guide and the reserve bobbins, said weft ends entering said intake mouth and converging toward said thread guide and being distributed along said upper straight edge due to the horizontal spacing of the stacks.

16. In a weft replenishing loom having a magazine from which weft ends of reserve bobbins are inclined downwardly, a pneumatic thread holder having a thread compartment therein in which subatmospheric pressures exist, a baffle in said thread compartment extending vertically and providing a weft end guide, said holder having a horizontal weft end intake mouth the upper edge of which is substantially straight, the weft ends entering said intake mouth and converging toward said baffle and being distributed along said upper edge of said intake mouth.

17. In a weft replenishing loom having downwardly inclined weft ends extending therefrom, a pneumatic thread holder having a thread compartment therein in which subatmospheric pressures exist, said holder having a substantially horizontal intake mouth receiving said weft end and having also a thread orifice spaced from the intake mouth, said holder being provided with a thread slot joining the intake mouth and orifice, and a lip projecting from said thread holder over a portion of said thread slot and defining with that part of the thread holder under said lip a thread notch leading to the thread slot.

18. In a pneumatic thread holder for the weft ends of a weft replenishing loom, said holder comprising a hollow body containing a thread compartment in which subatmospheric pressures can be created, said holder having an intake thread mouth on one side thereof and a thread orifice on the opposite side thereof, there being a thread slot in the holder joining the intake mouth and orifice, and a thread guide on said holder in front of said orifice and below said thread slot to guide weft ends toward said orifice and prevent said weft ends from reentering said thread slot after they have been placed in the orifice.

19. In a thread holder mechanism for a weft replenishing loom having weft ends, said mechanism comprising a hollow structure formed with an intake mouth facing the loom and a thread orifice spaced from the intake mouth and facing away from the loom, a baffle within said thread holder dividing the latter into front and rear thread compartments connected by a narrow thread passage located adjacent to said orifice, and means affording access to said thread holder on that side of the baffle opposite the intake mouth for creating subatmospheric pressures within said holder, a weft end extending from said intake mouth through said orifice being drawn through the latter and assisted in its movement through the rear compartment by a stream of air drawn into said orifice.

20. In a pneumatic thread holder for the weft ends of a weft replenishing loom, said holder comprising a hollow structure having opposite walls in one of which is located an intake mouth to receive the weft ends and in the other of which is located a thread orifice, said structure being provided with a thread slot joining said intake mouth and orifice, a baffle extending from said one wall and dividing said hollow structure into front and rear thread compartments joined by a narrow thread passage, the latter located adjacent said orifice, and means entering said rear compartment by which subatmospheric pressures may be created within said thread holder, a stream of air drawn through the orifice due to existence of said subatmospheric pressures assisting movement of a thread extending from the intake mouth through said narrow thread passage and into said rear compartment.

21. In a pneumatic thread holder for weft ends which extends downwardly from a bobbin magazine in a weft replenishing loom, an inclosed hollow structure having a weft and receiving intake mouth therein facing the loom, thread guide means within the structure having a substantially vertical wall spaced from said mouth in a direction away from the loom, pneumatic means entering said structure by which subatmospheric pressures are created therein, said wall of the guide means and pneumatic means being so related that weft ends in the mouth are drawn pneumatically along paths converging along said wall of the guide means in front thereof and then extending rearwardly to said pneumatic means.

22. A pneumatic thread holder for the weft ends of a weft replenishing loom having means so constructed as to provide an inclosed thread compartment in which subatmospheric pressures can be created, said means having a thread slot therein affording access to said compartment and having also spaced thread receiving mouths therein communicating with said slot and compartment and through which the weft ends can be drawn manually.

23. In a pneumatic thread holder for the weft ends of a weft replenishing loom, said holder comprising a hollow body containing a thread compartment in which subatmospheric pressures can be created, said holder having a thread in-

take mouth on one side thereof and a thread orifice on another side thereof, there being a thread slot in the holder joining the intake mouth and orifice, and a thread guide adjacent to and extending away from said orifice to prevent thread extending from said orifice along said guide from reentering said thread slot.

24. In a pneumatic thread holder for the weft ends of a weft replenishing loom, said holder comprising a hollow body containing a thread compartment in which subatmospheric pressures can be created, said holder having a thread intake mouth on one side thereof and a thread orifice on another side thereof, there being a thread slot in the holder joining the intake mouth and orifice, and a thread guide projecting from said orifice to prevent threads which have entered said slot and extend from said orifice along said thread guide from reentering said thread slot.

25. In a thread holder for a weft replenishing loom, said holder comprising a hollow casing in which subatmospheric pressures can be created, said casing being provided with a thread orifice connecting the interior of the casing with the atmosphere and having a thread slot communicating with the interior of the casing and also with said orifice and having a part thereof communicating with the atmosphere, and means having a guiding surface exterior of the casing spaced from said part of the slot and effective to prevent the ends of threads extending from said orifice and along said surface from entering said part of said thread slot.

26. In a pneumatic thread holder for a weft end extending from a bobbin magazine, two thread guide and supporting means spaced from each other and each having an opening through which the weft end extends, each opening having a thread slot communicating therewith to afford entry of said weft end into the opening, and means creating subatmospheric pressures between said openings tending to draw said weft end thereinto.

27. In a pneumatic thread holder for a weft end extending from a bobbin magazine, two thread guide and supporting means spaced from each other and each having an opening through which the weft end extends, and means creating subatmospheric pressures intermediate said openings tending to draw through the latter toward said means those parts of said weft end extending beyond said openings with respect to said means.

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