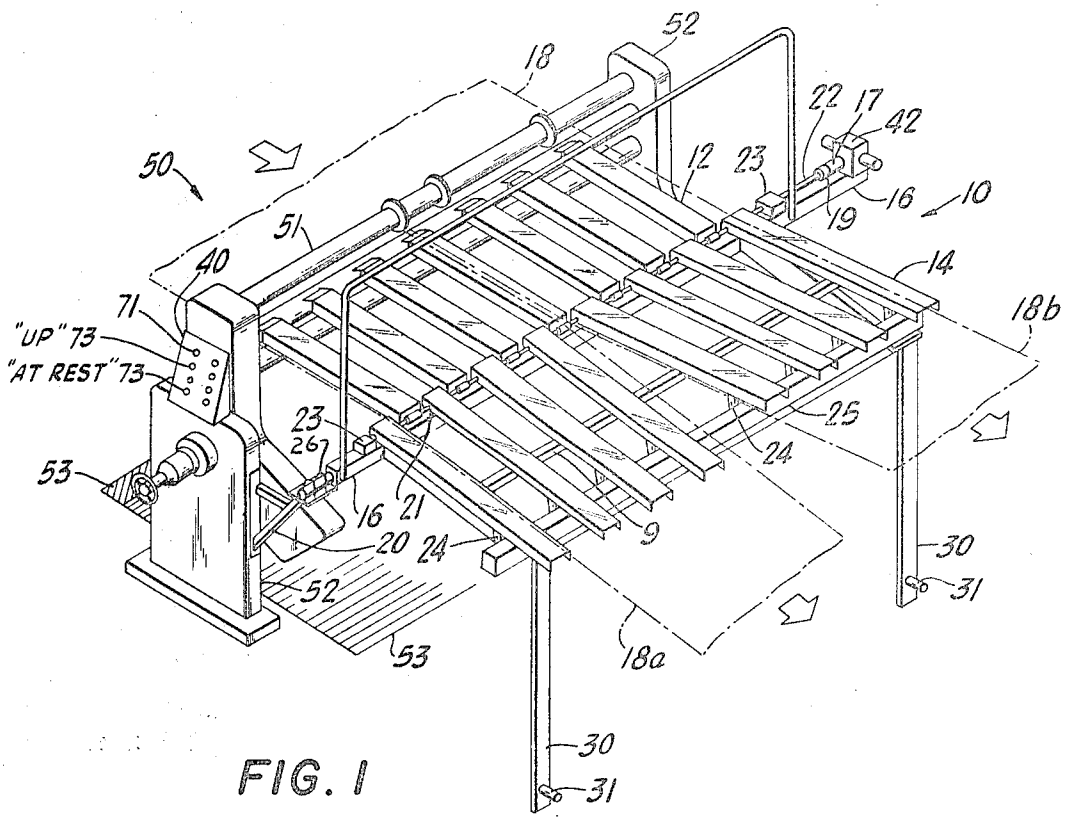

FIG. 1

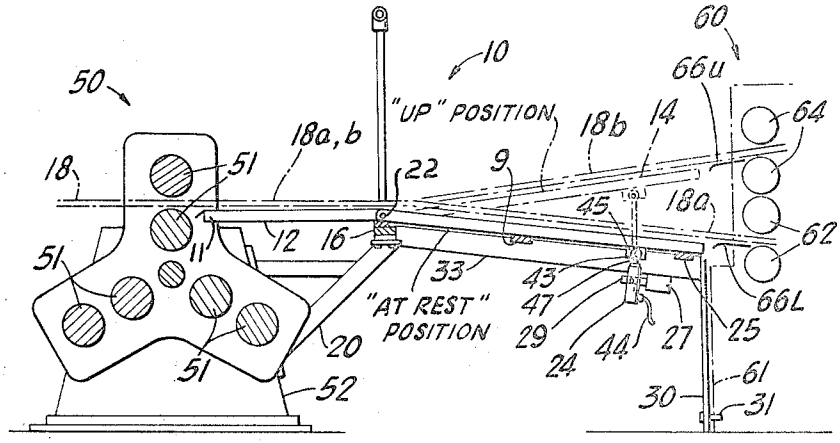

FIG. 2

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United States Patent

[11] **3,575,331**

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[21] Appl. No. **875,291**
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[45] Patented **Apr. 20, 1971**
[73] Assignee **Kopper Company, Inc.**

[54] **WEB-GUIDING APPARATUS**
7 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **226/199,** 83/105
[51] **Int. Cl.** **B65h 29/58**
[50] **Field of Search** 226/199, 196; 83/105, 107

[56] **References Cited**

UNITED STATES PATENTS

3,478,654 11/1969 Willard 226/199X

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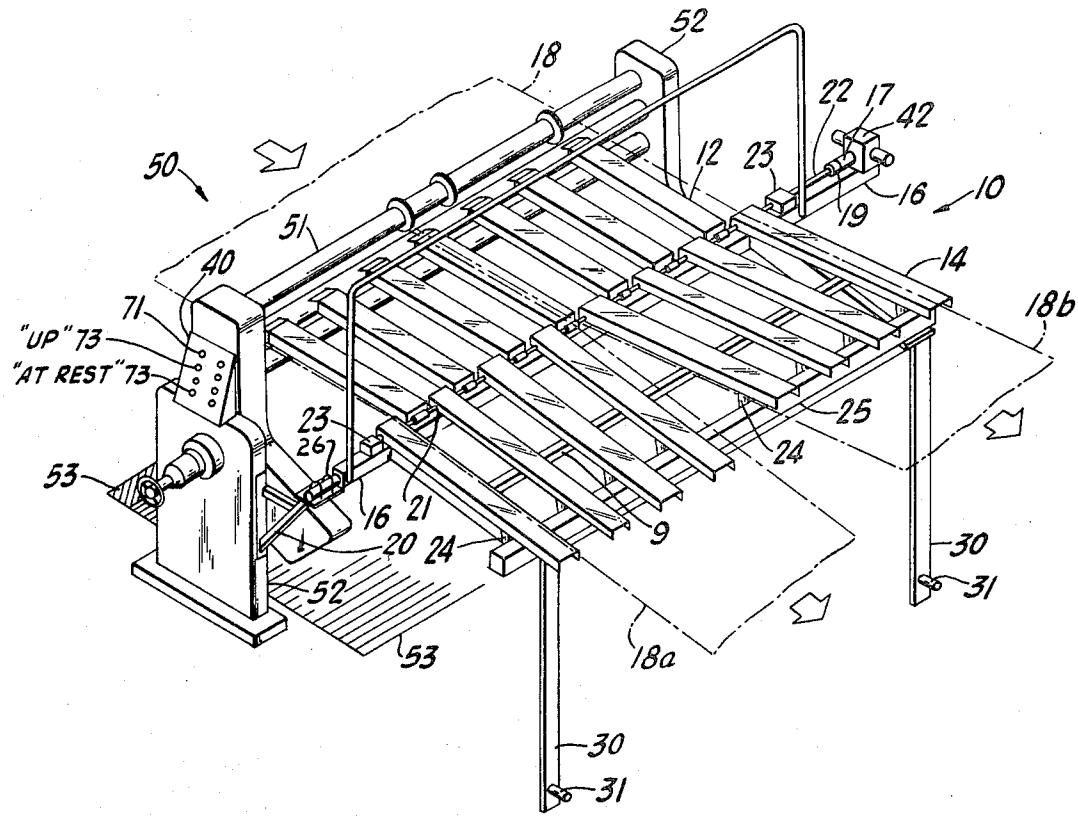
ABSTRACT: A lead-in table for guiding a plurality of horizontally moving webs into at least two horizontally diverging paths toward subsequent processing machinery such as a cutoff knife. The table includes a first set of slats which receives the webs from a slitter-scorer and guides them to a second sequentially adjoining set of slats. The first set is pivotable about an end to provide clearance for indexing the slitter-scorer or for setup of the heads on the slitter-scorer. The second set of slats guides the webs to the cutoff knife. Selected ones of the slats of the second set are pivotable to form variable-width guides corresponding to selected widths of the webs to guide them along horizontally diverging paths to the vertically displaced cutting rolls of the cutoff knife.



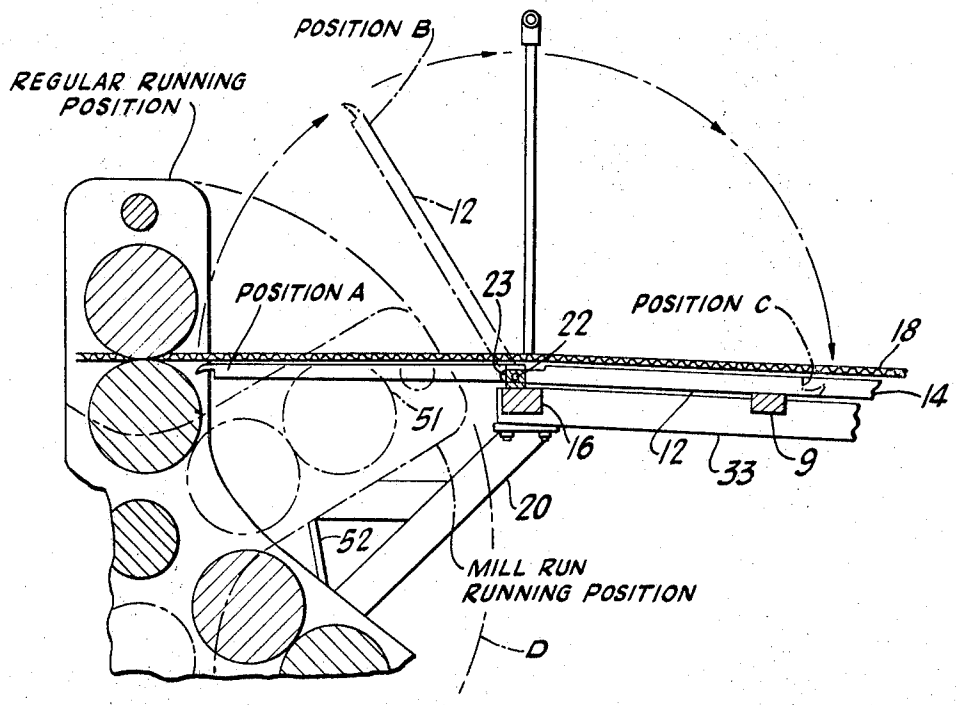


FIG. 3

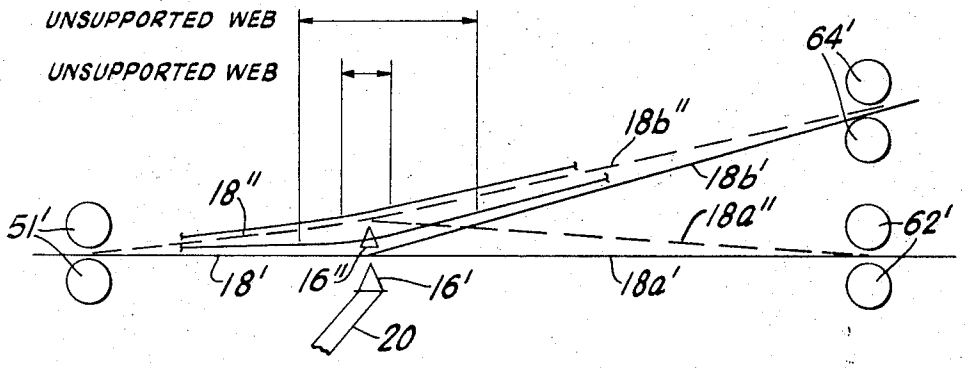


FIG. 4

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WEB-GUIDING APPARATUS

CROSS-REFERENCE TO A RELATED APPLICATION

This invention relates generally to the web-guiding structure disclosed in copending application Ser. No. 677,127 filed on Oct. 23, 1967, by Boyce C. Dent, now U.S. Pat. No. 3,489,043 entitled WEB GUIDING APPARATUS FOR CORRUGATORS and assigned to the assignee of the present invention.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to cutting and more particularly to plural guide elements to guide moving work.

2. Description of the Prior Art

Conventionally, corrugating machines produce a web of corrugated paperboard much wider than the width of the corrugated web which is ultimately desired for forming carton blanks. Accordingly, the wide web is fed into a slitter-scorer which divides it into a plurality of narrower webs. The width of the narrower webs may be varied according to the blank size required.

Each of the narrower webs is guided to separate transverse cutoff knives which cut the webs into selected length blanks. In this manner, webs of varying width may be cut into sheets of varying length thereby enabling various blank sizes to be produced from a single web of corrugated board. The final sizes of the blanks are determined by the corresponding box size desired.

The slitter-scorer ordinarily has three work stations with each station comprising a pair of parallel shafts upon which are mounted cooperating slitting and scoring heads. The slitter-scorer is arranged so that one work station is in operative engagement with the webs while the other two are in a position away from the webs. In this manner, two of the work stations may be preset for later use while the remaining work station is in use. Instead of stopping the movement of the web to reposition the slitting and scoring heads on the slitter-scorer to form different widths, the second and third pairs of slitting and scoring heads may be positioned by the operator so as to be ready for use when it is time to make the desired order change.

When an order change occurs, the web is transversely cut prior to reaching the slitter-scorer. The upstream end of the web, that is, the end coming from the corrugator, is slowed down while the severed downstream portion of the web continues on to the slitter-scorer at the original speed. Thus a gap is produced between the upstream and downstream portions of the web.

After the downstream portion of the web clears the slitter-scorer and before the upstream portion arrives at the slitter-scorer, the latter is rotated or indexed to position a second pair of shafts for engagement with the web.

The cutoff knives are generally arranged at different heights so that one set of cutoff knives will be at a higher position than the other set with respect to the path of travel of the moving web. The cutoff knives are each preset to cut a different sheet length of corrugated blank following the order change. Therefore it becomes necessary to guide the divided web portions to different sets of cutoff knives after the webs have passed through the slitter-scorer. One of the narrower webs must be guided to a lower positioned cutoff knife while another of the narrower webs must be guided to a higher positioned cutoff knife.

Occasionally, three cutoff knives are provided to cut varying length blanks from three streams of web.

Conventionally, a plurality of transversely spaced slats are provided between the slitter-scorer and the cutoff knives to guide one of the moving webs to the upper knife and the other web to the lower knife. The controls for positioning the slats may be set by the operator during setup prior to an order change. The number of slats positioned to guide a stream to the upper or lower knife depends on the width of the web stream. The slats are generally pivotally attached to a support and, during an order change, the slats are pivoted about their support to positions wherein they will accurately guide the web streams to the appropriate cutoff knife. Such an arrangement of supported slats is known in the art as a lead-in table.

If a web of corrugated board is permitted to move without adequate support the deflection in the web due to its weight will cause the web to vibrate or fluff. It is of extreme importance in lead-in tables that the corrugated webs be well supported between the slitter-scorer and the cutoff knives. Also it is important that the webs not be subjected to abrupt changes in direction as they are guided to paths which diverge from the path of travel of the original web.

Conventional slats manually positioned by the operator are unsatisfactory due to the time needed for setup of the slats. To do this, the corrugating machine would have to be temporarily shut down which is undesirable for reasons well known in the art.

Saunders et al., in U.S. Pat. No. 3,307,441 have provided a lead-in table having slats whose desired position is presettable by the operator. Webs leaving the slitter-scorer are passed between a set of rolls and onto the slats. In such an arrangement, however, the webs are not continuously supported as they leave the slitter-scorer and move to the slats of the lead-in table. Furthermore, when the webs are guided along horizontally diverging paths to the cutoff knives, the angle of inclination of slats leading to the uppermost knife may become quite steep as compared to the lowermost knife which is substantially on the same horizontal plane as the slitter-scorer. Machines shown in prior art have not continuously supported the webs as they leave the slitter-scorer to provide clearance for indexing the triplex slitter-scorer during an order change. As previously mentioned, indexing is accomplished by rotating the triplex slitter-scorer to position a second or third set of slitter rolls for engagement with the web.

SUMMARY OF THE INVENTION

Accordingly, the present invention provides a lead-in table which effectively supports the webs continuously from the nips of the slitter-scorer heads to the stationary aprons of the cutoff knife and automatically provides a clearance for indexing of the slitter-scorer during an order change. Furthermore, the table is of simple and reliable construction resulting in considerable cost savings in comparison with prior art devices.

In the present invention, continuous support and clearance for indexing is accomplished by providing a lead-in table having two sets of traversely spaced slats, one of the sets of slats extending from a pivot support to the nips of the slitter-scorer heads to receive and continuously support the webs as they emerge from the slitter-scorer and the other set of slats extending from the support to the stationary aprons of the cutoff knives, thus continuously supporting the webs as they are guided from the slitter-scorer to the appropriate cutoff knife.

The pivot support is attached by brackets to the side frames of he slitter-scorer and to the base of the cutoff knife so that the entire table is independent of the floor to provide access by the operator into a pit beneath the slitter for setting up the slitter heads on the inoperative work stations of the slitter.

The slats of the first set are simultaneously pivotable out of the path of travel of the slitter-scorer during indexing. These slats are further pivotable about the pivot support into the same plane as the slats of the second set which are directed to the lower knife. This position permits the passage of mill run board onto the table with the slitter-scorer in midindex position.

The slats of the second set, however, are individually positionable to guide the separate webs along horizontally diverging paths toward the appropriate cutoff knife.

The first and second sets of slats are automatically controlled by the operator from a central control panel and slat positions for the second set may be preselected at the same panel. The first and second sets of slats are independently actuated.

The above and further objects and novel features of the invention will appear more fully from the following detailed description when the same is read in connection with the accompanying drawings. It is to be expressly understood, however, that the drawings are not intended as a definition of the invention but are for the purpose of illustration only.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings wherein like parts are marked alike:

FIG. 1 is a perspective view of the lead-in table including the slitter-scorer shown in phantom outline;

FIG. 2 is a side elevation showing the lead-in table of FIG. 1 connected to the rotary cutoff knives and slitter-scorer;

FIG. 3 is an enlarged cutaway portion illustrating the alternate positions of the first set of slats during operation, during indexing of the slitter-scorer, and during the processing of mill run paperboard;

FIG. 4 is a diagrammatic illustration of the alternate positions of the slat support showing the increase in web support resulting from a reduction of the incline of the slats to the upper cutoff knife.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In the preferred embodiment of this invention, a lead-in table identified generally by numeral **10** in FIG. **1**, is shown as it is used in cooperation with a triplex slitter-scorer **50** shown in phantom outline. Lead-in table **10** comprises a first set of identical slats **12** and a second set of identical slats **14**. Both slats **12** and **14** are supported by a common support **16** which extends transversely across the path of travel of corrugated web **18**, FIG. **2**. Suitable framework is provided to support lead-in table **10** between the slitter-scorer **50** and cutoff knife **60** as shown in FIGS. **1** and **2** which framework includes brackets **20** and legs **30**.

First slats **12**, FIG. **2**, are pivotally supported by support member **16** and in their normal operating position extend horizontally toward slitter-scorer **50**. The free ends **11** of slats **12** extend to the nips of the slitter rolls **51** to provide support for corrugated web **18** when it emerges from slitter rolls **51**.

The purpose of a lead-in table is twofold:

1. to support the corrugated board between the slitter-scorer and the cutoff knife; and
2. to guide the plurality of webs emerging from the slitter-scorer to the appropriate cutoff knife.

Referring again to FIGS. **1** and **2**, it can be seen that web **18** is slit into a plurality of webs **18***a* and **18***b*, each of a preselected width, which proceed along lead-in table **10** toward duplex cutoff knife **60**. Webs **18***a* and **18***b* pass over slats **12** and onto second slats **14** which have individual actuating members **24**, as will be more fully discussed hereinafter. A number of second slats **14**, which substantially correspond to the width of web **18***a*, are left in their "at rest" position to guide web **18***a* to a lower pair of cutoff knife rolls **62**, as can be seen in FIG. **2**.

Rod **22**, FIGS. **1** and **3**, is secured to the upper surface of support **16** by brackets **23** on each end of the rod **22**. Rod **22** passes through holes **21** p4ovided in the ends of the slats **12** and **14** which are interdigitally spaced along rod **22**. Slats **12** are pinned to rod **22** by pins (not shown) so that when rod **22** is rotated, the entire first set of slats **12** will simultaneously rotate with the rod.

A reversible rotary actuator **42**, preferably hydraulic, is mounted to the end of support **16** by screws (not shown) and has an output shaft **17**, coupled to rod **22** by a coupling **19**. When output **17** is rotated in the desired direction, the slats **12** pinned to rod **22** also rotate in a similar manner to the position desired.

Slats **14**, however, are not pinned to rod **22**; rod **22** merely passes through clearance holes in the ends of slats **14** so that the slats **14** will rotate about rod **22** when they are raised by actuating members **24**. Since slats **14** are individually operable by actuating members **24**, any desired number of slats **14** may be raised or lowered to a preselected position to support any combination of width variations of webs **18***a* and **18***b*. Thus, it can be seen in FIG. **2** that webs **18***a* and **18***b* are substantially supported by slats **12** and **14** as the webs are guided from slitter-scorer **50** to the stationary aprons **66***u* and **66**L of duplex cutoff knife **60**.

It is important that the operator have access to the pit area **53** (the recessed area beneath the automatic lead-in table and adjacent the slitter-scorer). During setup time when one of the work stations of slitter-scorer **50** is operating on web **18**, the operator must enter pit **53** and adjust the slitting and scoring heads on the rolls **51** of the lower work stations according to the desired width of webs needed for subsequent orders. Accordingly, the slat support **16**, is clamped to brackets **20** by clamps **26** at each end of the support. Brackets **20** are mounted to the side frames **52** of the slitter-scorer **50** by screws (not shown). In this manner, no leg supports are secured to the floor of the pit area **53** thereby avoiding needless obstructions in the pit and enabling the operator to move freely about the pit area during setup time.

A pair of side supports **33** are attached to slat support **16** by screws (not shown) and extend from the support **16** toward cutoff knife **60**. Legs **30** are secured to supports **33**, such as by welding and extend downward to where they are fastened to the base **61** of cutoff knife **60** by screws **31**. A crossmember **25** is secured between side supports **33** by screws (not shown) to support slats **14** in their "at rest" position. In this manner, the area under lead-in table **10** remains clear of any obstructions that might hinder the operator in working in pit area **53**.

In some installations, the duplex cutoff knife **60** is situated farther from the triplex slitter-scorer **50** than what might be considered as the standard dimension. In this case, legs **30** can be anchored to the floor by the use of adapter foot pads. If desired, brackets **20** can be provided with three-dimensional adjustment means which will allow for any reasonable departure from installation dimension requirements of the slitter-scorer and the cutoff knife as established in the general arrangement specifications of the corrugator line. It should also be noted that the effective length of the lead-in table **10** can be extended by making slats **14** whatever length is desired. As previously discussed, first slats **12**, at the receiving end of lead-in table **10**, are simultaneously positionable to three distinct positions, FIG. **3**:

1. a substantially horizontal position, A, extending toward the slitter-scorer **50** for receiving and supporting the webs **18***a* and **18***b*;
2. a substantially vertical position, B, to provide clearance for indexing the slitter-scorer **50** to a new position during an order change; and
3. a substantially horizontal position, C, extending toward the cutoff knife **60** during production of mill run board (when web **18** is not divided into narrower widths).

In the first position, A, slats **12** are substantially horizontal and extend to the nips of the slitter rolls **51** for receiving and supporting webs **18***a* and **18***b*. When slats **12** are in position A, slitter-scorer **50** is in position for the heads (not shown) on rolls **51** to engage moving web **18** as best shown in FIG. **3**.

During running of an order the operator presets the heads on the other slitter rolls for cutting web **18** to different widths on subsequent orders. Therefore, the operator need only index or rotate the slitter-scorer to position the appropriate slitter rolls to engage web **18**. During indexing, slats **12** must be pivoted to position B as shown in FIG. **3**, to clear the circumference of slitter-scorer **50** as shown by phantom line D in FIG. **3**. When indexing is completed, slats **12** are returned to position A.

As is well known in the corrugated paperboard industry, many small box manufacturers do not have equipment for

producing corrugated board. These manufacturers do have finishing equipment, that is, equipment which is used to produce box blanks from sheets of corrugated board, therefore, they order large quantities of sheets of corrugated board from those who do have corrugating equipment. Such sheets are not slit to specific widths but are of the same width as the web from which they are made. However, the web is cut into sheet lengths by a cutoff knife. The unslitted corrugated board web is known as mill run board.

To produce mill run board, slitter-scorer **50** is positioned as shown by the dotted lines in FIG. 3 to permit web **18** to pass unobstructed over the slitter rolls **51**.

When slitter rolls **51** are in this position it is not possible to pivot slats **12** to position A because they would interfere with rolls **51**. Therefore, slats **12** are moved to position C where they lie in substantially the same plane as slats **14** when slats **14** are in their lowermost position. A slat support **9** is fastened between a pair of side supports **33** to supports slats **12** in position C. Thus, unslitted web **18** is guided by lead-in table **10** to the lower cutoff knife where appropriate sheet lengths are cut.

Slats **14** of the second set are pivotally attached to and freely rotatable around rod **22**. An actuator support bar **27**, FIG. 2, is secured beneath side supports **33** by screws (not shown). A power-actuating member such as a hydraulic cylinder **24** is trunnion mounted in the conventional manner to support bar **27** by clips **29** welded to the bar. One cylinder **24** is provided beneath each slat **14** and is attached thereto in the conventional manner such as by a pin **43** and clevis **45** fastened to each slat. Thus, each slat **14** may be raised from its"at rest" position against crossmember **25** to an "up" position by hydraulically extending ram **47** of the associated cylinder **24**. By raising the proper number of slats **14**, an adequate support for whatever width is chosen for web **18*b*** is provided for guiding this web to the upper knife rolls **64**. The slats **14** remaining in the at rest position support and guide web **18*a*** to the lower knife rolls **62**.

The operator controls the automatic functions of the lead-in table from a control console **40** which can be mounted on one side frame **52** of slitter-scorer **50** as shown in FIG. 1. A conventional bidirectional switch **71** is connected to pneumatic rotary actuator **42** through suitable wiring and solenoid valves (not shown) to rotate output **17** and thus slats **12** through rod **22** on command to any of the positions A, B, or C as desired. The operator also positions the slats **14** in either the at rest or up positions by pushing the appropriate control buttons **73** which are connected through suitable wiring and solenoid valves (not shown) to cylinder **24**. The at rest and up position control buttons **73** are provided on console **40** for each of slats **14** although only one set is shown.

Power to drive rotary actuator **42** and cylinders **24** is supplied by a suitable hydraulic source (not shown) connected to them by means of flexible conduit **44** in the well-known manner. Controls for first slats **12** and second slats **14** need not be dependent upon each other so that any desired combination of the positions which are available to slats **12** and **14** may be accomplished by the operator using the appropriately designated controls at console **40**. However, it may be desirable to interlock the controls in an electrical manner well understood to prevent slats **14** already in an up position to move to the at rest position until slats **12** are moved to position B and to prevent slats **14** in the at rest position from rising to the up position until slats **12** are returned to position A.

Changing over from one order to another is usually done automatically since controls forming no part of this invention are usually provided for changing the length of sheets to be cut by the cutoff knives and for indexing the slitter-scorer to a new position and the like.

Accordingly, it is helpful to provide duplicate controls (not shown) for slats **14** on console **40** of which one set is on standby while the other set is active. That is, the standby set may be activated by the operator while an order is running but will not become effective until a selector switch (not shown) is actuated at the time of changeover. The other set then becomes the inactive set and may be used to select the positions of slats **14** for the next order. Thus, an order change can proceed in an orderly, sequential, and rapid fashion without waiting for the operator to select the appropriate positions for the slats. Duplicate controls such as these are well understood by those skilled in electrical matters.

When a web passes through the slitter-scorer and emerges as two separate webs, the paths of the two webs must be altered and guided to the upper and lower cutoff knives. In some installations, as a first example, the path of travel of the web through the slitter-scorer is slightly above the path of travel through the upper knife as illustrated in FIG. 2. Thus, the angular change in direction of webs **18*a*** and **18*b*** is not abrupt. However, in other installations, the path of travel through the slitter rolls **51** may be in substantially the same plane as the path through the lower knife in FIG. 4. Thus, the vertical distance between the path through the slitter rolls **51'** and the path through the upper knife **64'** is greater than that shown in FIG. 2. In this situation, the angular change of direction or slope of web **18*b'*** is much more abrupt than in the first example whereas web **18*a'*** makes little or no change in direction.

In order to lessen the abrupt angular change of direction of web **18*b'***, bracket **20** may be adjusted so as to raise support **16** from position **16'** to **16''** as shown in an exaggerated view in FIG. 4. In this manner, web **18*b'*** will be guided along a new path **18*b''*** thus reducing the abrupt angular change of direction of the web between slitter rolls **51'** and upper cutoff knife **64'** by increasing the overall distance within which such a change of direction, or a change of slope, takes place. Thus, web **18''** is deflected slightly upward after leaving slitter rolls **51'** so that webs **18*a''*** and **18*b''*** are guided to their appropriate cutoff knives after undergoing a second slight alteration in slope at support **16''**. If the position of support **16'** is used as shown in FIG. 4, then web **18*b'*** would undergo a more abrupt change in slope over a shorter distance of travel thus causing the web **18*b'*** to be momentarily unsupported over a greater distance due to the stiffness of the web and its inability to conform to the contour provided by the slats of the lead-in table. FIG. 4 indicates the area of nonsupport. Failure to support the web can cause web **18*b'*** to fluff or vibrate which has an adverse effect on the slitting and cutoff operations.

In operation, a web of corrugated board **18** produced by corrugating machinery (not shown) located upstream passes through slitter rolls **51** of slitter-scorer **50** and is immediately supported by slats **12** which extend into the nip of the slitter rolls **51**. web **18** having thus been slit, scored, and trimmed by slitter-scorer **50** now proceeds as webs **18*a*** and **18*b*** along slats **12** toward slats **14** which support and guide webs **18*a*** and **18*b*** to appropriate cutoff knives **62** and **64**. Slats **14** have been prepositioned to guide one of the webs, for example web **18*b***, along a horizontally diverging path with respect to the other web, **18*a***. Web **18*b*** having been slit to a preselected width is guided to upper cutoff knife **64** to be cut to a preselected sheet length thus producing a selected blank size of corrugated board. Likewise, web **18*a*** has also been slit to a preselected width and is guided to lower cutoff knife **62** and cut to a preselected sheet length thereby producing a second selected blank size.

In a similar manner, three webs could be slit from web **18** in the slitter-scorer and guided along three horizontally diverging paths by slats **14** to a triple cutoff knife and thus produce three blank sizes of corrugated board.

As the foregoing sequence takes place, the operator makes adjustments to the two sets of slitter rolls which are not in position to engage web **18**. These adjustments are made manually by the operator standing in the pit area **53**. Other preparations for an upcoming order change are made by the operator at the control console **40** where necessary control functions are preselected.

When an order change is initiated, the web **18** is transversely cut upstream from the slitter-scorer and the upstream portion of web **18** is run at a slower than normal speed. The downstream portion of web **18** continues to the cutoff knife **60** at normal speed. Thus, a gap is created between the upstream and downstream portions of web **18** to permit indexing of slitter-scorer **50** during the time that none of the web is passing through it.

During indexing, slats **12** are raised to position B by rotary actuator **42** to clear the circumference D of slitter-scorer **50**. The slitter-scorer then rotates to position the appropriate set of slitter rolls **51** to engage oncoming web **18**. Slats **12** then return to position A. Thereafter, preselected ones of slats **14** are raised or lowered as previously described to substantially correspond to the new widths of webs **18***a* and **18***b* which will now emerge from slitter-scorer **50**.

Upon completion of the indexing cycle, and other necessary changes having been made, the upstream portion of web **18** may be speeded up to engage the newly positioned slitter rolls **51**. The new widths of webs **18***a* and **18***b* are slit and continuously supported and guided by slats **12** and **14** as webs **18***a* and **18***b* proceed toward cutoff knives **62** and **64**.

To produce mill run board, the operator again cuts the web and allows the downstream portion to run out. The operator then actuates slats **12** to position C and slats **14** to their at rest position and then actuates slitter-scorer **50** to a position wherein one of the pairs of slitter rolls is vertically downward and the remaining two pairs of slitter rolls lie at the same horizontal level as shown by the dotted lines in FIG. **3**. In this position, none of the slitter rolls interfere with or engage web **18** for cutting, but instead they support web **18** at substantially the same level as slats **14**. As web **18** travels over slitter-scorer **50** it moves directly to slats **14** and is supported and guided thereby to one of the rotary cutoff knives where the selected sheet lengths are cut and blanks are produced having a width corresponding to the width of web **18**.

To return to a normal run, the web **18** is once again cut and the downstream portion is allowed to run out. The upstream portion of web **18** is slowed down. Slitter-scorer **50** is indexed to engage the selected slitter rolls **51** with web **18**, slats **12** are returned automatically to position A to receive and support webs **18***a* and **18***b*, and the selected ones of slats **14** are automatically raised to the up position to support and guide web **18***b* to the upper cutoff knife **64** while the selected ones of the others of slats **14** are lowered into the at rest position to support and guide web **18***a* to the lower cutoff knife **62**.

The foregoing has described a novel lead-in table having two separate sets of slats for continuously supporting and guiding streams of corrugated webs between a slitter-scorer and a cutoff knife, thereby reducing the tendency of webs to vibrate or fluff.

I claim:

1. Web-guiding apparatus for supporting and guiding a plurality of parallel moving webs, whose widths vary from time to time, from a web-receiving end to a web-delivering end opposite said receiving end for guiding said webs along horizontally diverging paths, said apparatus comprising:

a support member extending traversely to the path of travel of said webs between said receiving and delivering ends for supporting the same;

said receiving end including a first set of transversely spaced slats pivotally attached substantially horizontally to said support member and extending therefrom toward the oncoming webs;

said delivering end including a second set of transversely spaced slats pivotally attached to said support member and extending substantially horizontally therefrom in the opposite direction to said receiving end;

first power-actuating means operatively connected to said receiving end for positioning said first set of slats from a web-guiding position to a nonweb-guiding position when the widths of said webs are varied; and

second power-actuating means operatively connected to each of said slats of said second set for positioning discreet ones thereof to form a support, having a width corresponding substantially to the width of at least one of said webs, extending along a path diverging substantially horizontally from said support with respect to the other of said slats of said second set;

whereby the positioning of said discreet ones of said slats guides at least one of said webs along a path diverging substantially horizontally from the path followed by the others of said webs.

2. The apparatus of claim **1** wherein the slats of said first and said second sets are interdigitally spaced along said supporting member.

3. The apparatus of claim **2** wherein said first power-actuating means is attached to said supporting member and is operative to pivot all of the slats of said first set simultaneously.

4. The apparatus of claim **3** wherein the second power-actuating means includes a fluid-operated cylinder for each slat of said second set each of which is selectively operable to pivot its associated slat to a preselected position, said cylinders being pivotally attached to said delivering end and to their respective slats.

5. The apparatus of claim **2** wherein said first power-actuating means is operable to pivot said first set of slats from a first web-guiding position to a substantially upright nonweb-guiding position and to a second web-guiding position in which the slats extend from said support member in the same direction as, and substantially parallel to, the slats in said second set.

6. The apparatus of claim **1** wherein said discreet ones of said slats are positionable to at least two paths diverging horizontally from said support member with respect to the others of said slats for guiding separate ones of said webs along at least two paths diverging substantially horizontally from the path of the other of said webs.

7. The apparatus of claim **1** wherein said support member is substantially vertically adjustable to change the horizontal level of the path of travel of said webs to a position above or below the level at which said webs are received by said receiving end for decreasing the angle of divergence of said horizontally diverging paths with respect to a horizontal line thereby providing a maximum amount of support for each of said webs.