United States Patent [19]

Sweet et al.

[11] **3,866,640**

[45] **Feb. 18, 1975**

[54] **LOG FEEDING DEVICE**

[75] Inventors: **Harold J. Sweet**, Rhinelander; **John G. Grimm, Jr.**, Tripoli, both of Wis.

[73] Assignee: **Marplex Products Co., Inc.**, Rhinelander, Wis.

[22] Filed: **Dec. 26, 1972**

[21] Appl. No.: **318,104**

[52] **U.S. Cl.** ..... **144/3 R**, 144/3 P, 144/41, 144/246 A, 144/246 E, 144/312, 198/167

[51] **Int. Cl.** **B27c 9/04**

[58] **Field of Search** ..... 83/425.3, 425.4; 144/3 R, 144/3 P, 41, 1 R, 134 R, 242 R, 242 C, 246 R, 246 A, 246 B, 246 C, 312, 246 E, 246 F, 208 R, 208 F, 208 E; 198/167

[56] **References Cited**

UNITED STATES PATENTS

561,569	6/1896	Davidson	144/246 G
1,437,843	12/1922	Heinrichs	144/246 A UX
1,798,570	3/1931	Wahl	144/246 B
2,765,011	10/1956	Jackson	144/208 F
2,794,466	6/1957	Leffler	144/246 F
2,923,333	2/1960	Nicholson	198/167 X
3,344,826	10/1967	Mitten	144/3 R

FOREIGN PATENTS OR APPLICATIONS

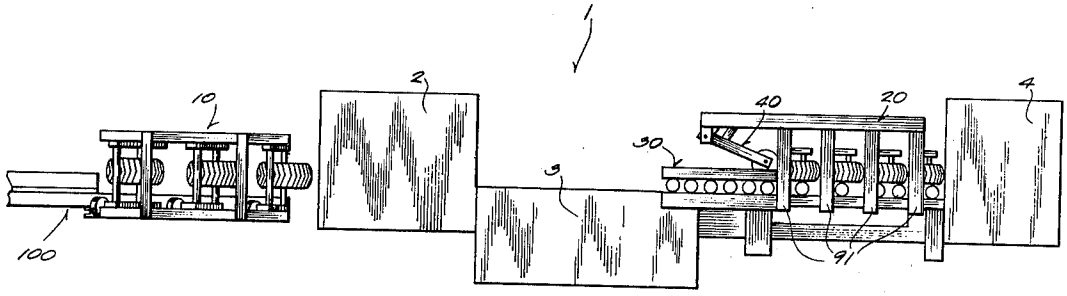
1,086,035	7/1960	Germany	144/246 R

Primary Examiner—Andrew R. Juhasz
Assistant Examiner—W. D. Bray

[57] **ABSTRACT**

A centering and guiding log feeding device including oppositely disposed, readily compressible, resilient rollers between which logs are passed as they are fed into a sawing apparatus. In the overall sawing system, one device is positioned ahead of a scragg saw which cuts a log into a cant having two opposite, flat sides. Another centering and guide device is positioned ahead of a gang edger and downstream from the scragg saw and centers, and guides the cant received from the scragg saw into the gang edger where the cant is cut into usable boards.

20 Claims, 8 Drawing Figures



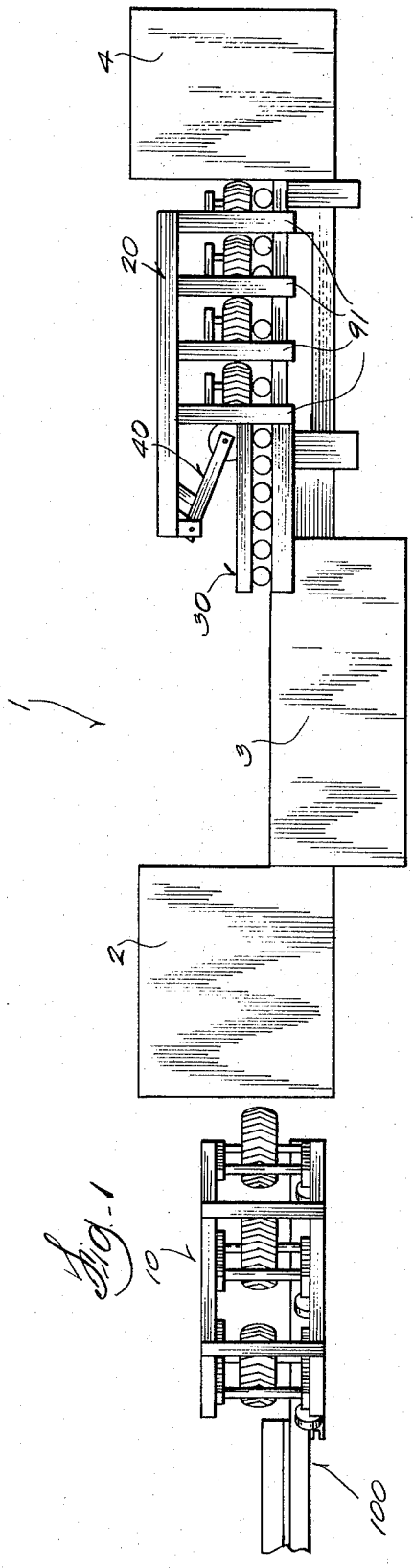

4
20
91
40
30
3
2
1
10
100

Fig. 1

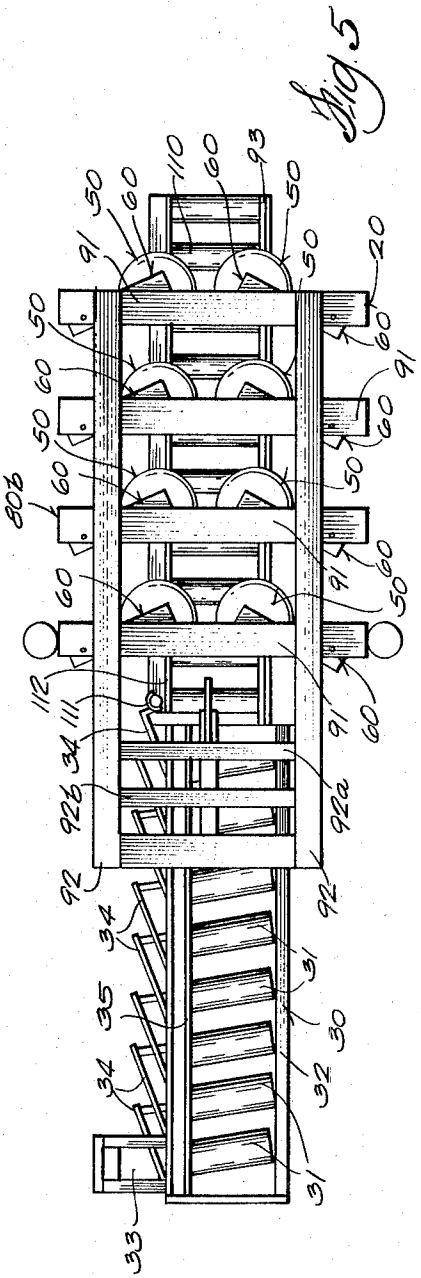

110
60
93
50
91
20
80b
112
111
34
92b
92a
92
31
35
30
32
33

Fig. 5

Fig. 2

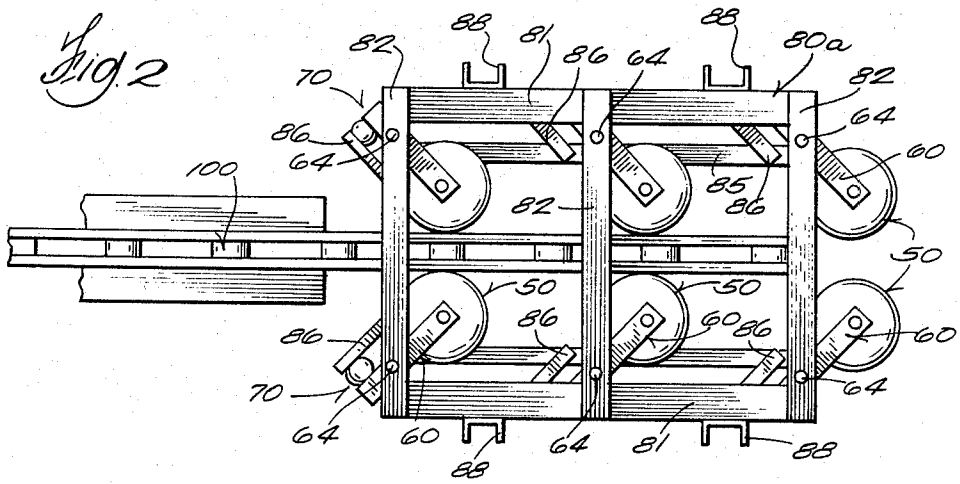
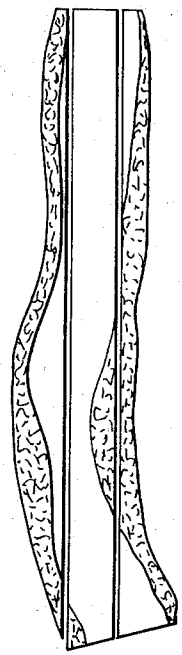

82
88
81
86
64
88
80a
82
64
60
70
86
64
100
82
85
86
50
50
50
86
86
90
86
60
70
64
64
60
64
81
88
88

Fig. 8



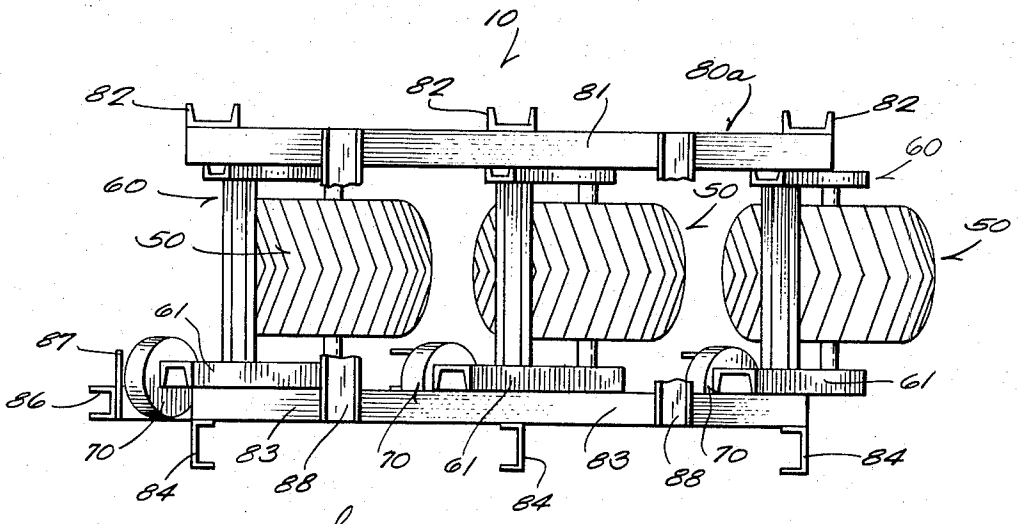

10
82
82
81
80a
82
60
60
50
50
50
61
87
61
86
70
84
83
88
70
61
84
83
88
70
84

Fig. 3

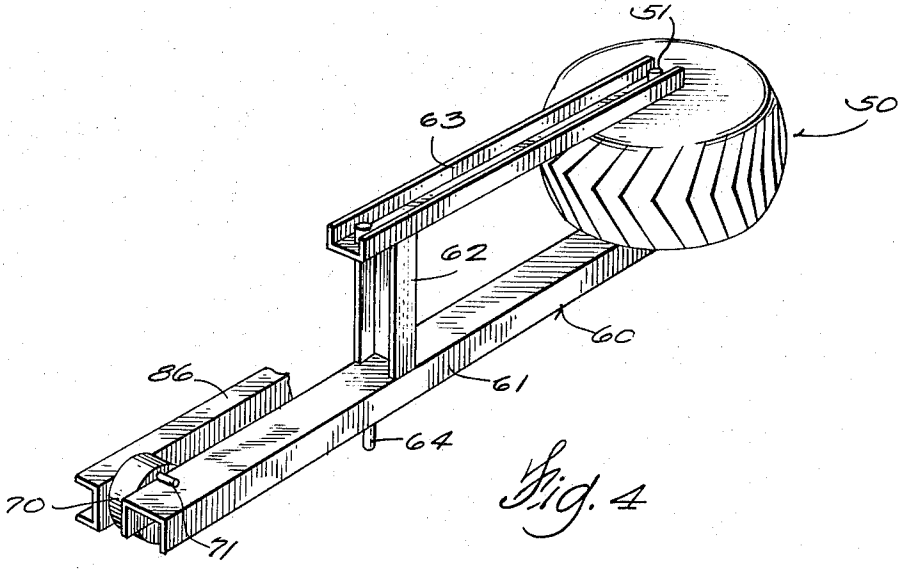

51
50
63
62
60
61
86
64
70
71

Fig. 4

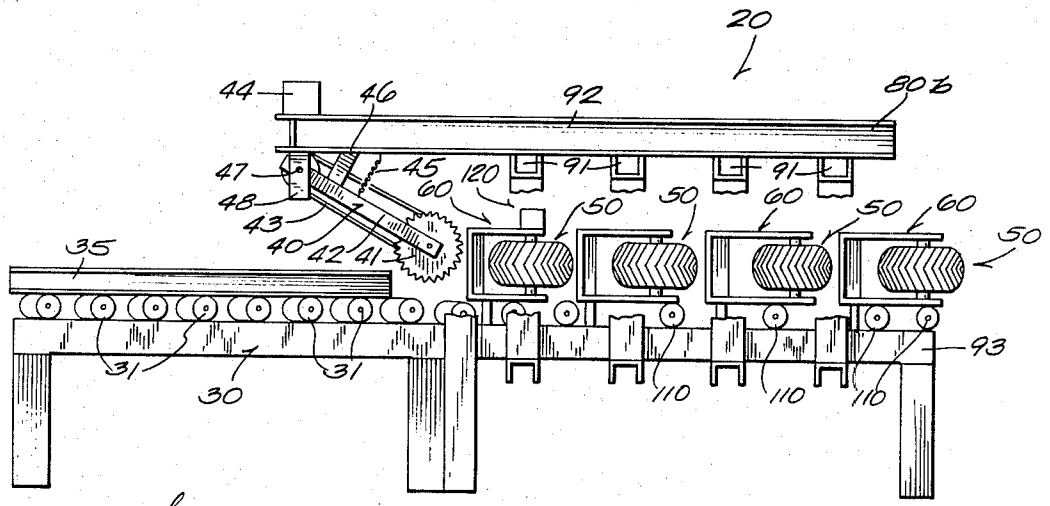

20
44
46
92
80b
47
45
120
91
91
48
60
50
50
60
50
60
50
43
40
42
41
35
31
30
31
110
110
110
93

Fig. 6

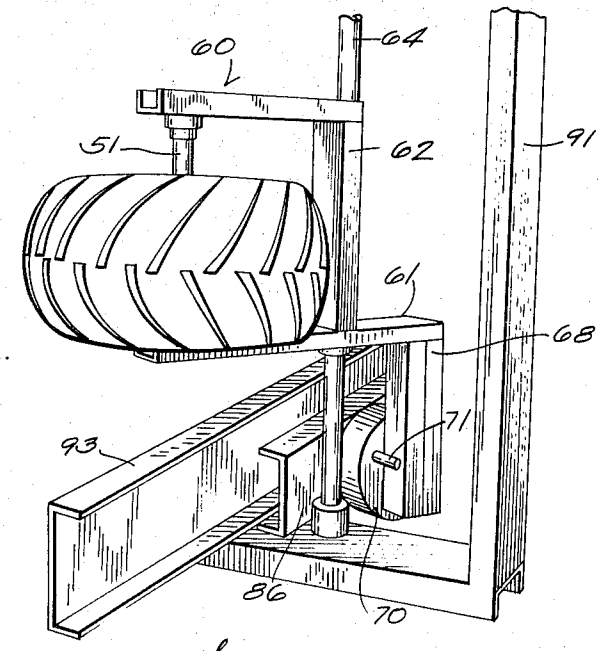

60
64
51
62
91
61
68
71
93
86
70

Fig. 7

LOG FEEDING DEVICE

BACKGROUND OF THE INVENTION

The present invention relates to a device for centering and guiding logs or the like as they are fed into a sawing apparatus or the like. To our knowledge, no such device is presently available which is capable of feeding logs into a sawing apparatus at speeds of more than 50 feet per minute. Even then, present devices are incapable of handling logs having excessive irregularities in their surfaces.

Prior art devices generally include oppositely disposed, inwardly slanted steel roller wheels which tend to cradle a log as the logs are fed into sawing apparatus. In some devices, the surfaces of these rollers are spiked or starred in order to more positively engage the surface of a log. One device includes a number of sets of spiked, steel rollers, the rollers of each set arrayed in a triangular fashion around a log and biased inwardly towards one another. These rollers change position with respect to one another as a log is passed therethrough.

None of these devices will operate satisfactorily at high rates of speed. None of these devices work at all in centering logs which are particularly irregular in shape. Thus, it is particularly difficult to find suitable apparatus for producing lumber for use in low cost lumber applications. The frequency of occurrence of logs having large knots, swaybacks and other irregularities in their surface is particularly high in timber which is sufficiently economical for use in producing low cost lumber.

SUMMARY OF THE INVENTION

The present invention comprises a method and apparatus in which the opposite sides of a log are engaged by a pair of oppositely disposed, readily compressible, resilient members as the log is moved into a sawing apparatus or the like. These readily compressible, resilient members tend to absorb irregularities in the surface or configuration of the log while still holding the log generally on the center line of the path along which it moves as it moves into the sawing apparatus. Preferably, the readily compressible, resilient members comprise at least one pair of oppositely disposed, readily compressible resilient rollers spaced such that the distance between them is less than the approximate diameters of logs passing therebetween.

Logs can be passed through centering and guiding devices embodying the present invention at speeds as high as 150 to 200 feet per minute. Their effectiveness is illustrated graphically by the cut which was made through the cant shown in FIG. **8**. FIG. **8** shows a plan view of an actual cant after it had been guided through a gang edger by a centering and guiding device embodying the present invention.

Preferably, the readily compressible, resilient rollers are rotatably mounted on the ends of pivot arms which in turn are pivotally mounted on a frame. Bias means are operably connected between each pivot arm and the frame for biasing the rollers towards one another. This enables the device to compensate for overall changes in log diameter, while the compressible rollers themselves accommodate localized irregularities in the log surface. Preferably, the bias means is adjustable so that less resistance can be set for runs of a number of logs having generally larger diameters while greater resistance can be set for runs of logs having generally narrower diameters. This makes it unnecessary to adjust the positions of the rollers themselves.

One overall system employs one centering device ahead of a scragg saw and another centering device downstream from the scragg saw but ahead of a gang edger. The scragg saw is used to cut the log into a cant having two opposite flat surfaces. The gang edger is used to cut the cant into finished boards. Preferably, a feed table is positioned ahead of the gang edger which includes driven rollers oriented at an angle to a flat guide member such that the cant is driven into engagement with the guide member and is rolled over on one of its flat surfaces prior to being fed into the second centering and guiding device.

This invention is particularly invaluable in producing lumber from low grade logs. One illustrative application is in the production of lumber for use in making wooden shipping pallets. Other applications for the invention, as well as additional objects, advantages and features will be apparent by reference to the written specification and appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows a generally schematic view of an overall sawing system employing two centering and guiding devices and two sets of saws;

FIG. **2** is a top plan view of the first centering and guiding device;

FIG. **3** is a side elevational view of the first centering and guiding device;

FIG. **4** is a fragmentary perspective view showing one readily compressible, resilient roller and its pivot mounting arm;

FIG. **5** is a top plan view of the second centering and guiding device and of its attendant feed table;

FIG. **6** is a side elevational view of the second centering and guide device and feed table;

FIG. **7** is a fragmentary perspective view of a readily compressible, resilient roller and its attendant pivot mounting arm; and

FIG. **8** is an elevational view of an actual cant after it had been fed into a gang edger by a centering and guide device embodying the present invention.

PREFERRED EMBODIMENT

The overall sawing system **1** disclosed in the preferred embodiment employs two very similar centering and guiding devices **10** and **20** embodying the present invention. One is positioned ahead of a scragg saw **2** and the other ahead of a gang edger **4** and downstream from the scragg saw **2** (FIG. **1**). A log is first conveyed through centering device **10** and into scragg saw **2**. Scragg saw **2** cuts the log into a cant having two opposite flat sides. The cut side boards fall out of the system down opposite sides of side board chute **3**. The cant is then delivered to feed table **30** which rolls the cant over onto one of its flat surfaces and feeds it into the second centering device **20**. The second centering device **20** feeds, guides and centers the cant into a gang edger **4** which cuts the cant into the finished boards.

Each of the centering devices **10** and **20** is similarly constructed in that each includes a plurality of oppositely disposed, readily compressible, resilient rollers **50** between which logs are passed (compare FIGS. **2** and **5**). The rollers **50** in turn are rotatably mounted on

the ends of pivot arms **60** which in turn are pivotally mounted on a frame **80**a for first device **10** or a frame **80***b* for second device **20.** In the case of both centering devices, the pivot arms **60** are biased to pivotal movement towards one another by an air spring **70** operably connecting the end of each pivot arm **60** to an anchor arm **86** of frame **80***a* or frame **80***b* (compare FIGS. **4** and **7**). In operation, the readily compressible, resilient roller members **50** absorb localized irregularities in the configuration of a log passing therethrough while air springs **70** allow rollers **50** to flex farther away from one another or closer towards one another in order to accommodate runs of a number of logs having generally larger or generally smaller diameters, respectively.

The rollers **50** employed in both the first centering and guide device **10** and second centering and guide device **20** are identical. They are readily compressible so that they absorb irregularities in the surface of a log passing therethrough and they are resilient so that they return to their original configuration after the log has passed. Zero pressure tires of the type employed in "all terrain vehicles" have been found to work exceptionally well as rollers **50** (FIGS. **4** and **7**). They are filled to an air pressure which is just sufficient to hold their shape. Thus, they are filled to a pressure of around 1½ pounds.

The differences between the first and second centering devices **10** and **20** result from their differing applications in the overall system. Primarily, these differences are in the means whereby logs are moved between rollers **50** and in the structure of their respective frames **80***a* and **80***b*. These in turn require the minor differences in the configurations of pivot arms **60.**

First centering and guide device **10** is designed for feeding rough logs into the scragg saw **2.** Since it doesn't matter where the log is engaged or how its surface is affected, a dog chain **100** can be used to drive the log between the oppositely disposed rollers **50** of first centering device **10** (FIG. **2**). All of the rollers **50** of first centering device **10** are freely rotatably mounted and are rotated merely as a result of engagement by a passing log.

Second centering and guide device **20,** on the other hand, is specifically adapted for feeding the two-sided cant which is delivered from scragg saw **2** into the finishing gang edger **4.** It is not possible to drive the cant through the centering device **20** with a dog chain such as dog chain **100** since the smooth, flat surface upon which the cant will lay cannot readily be gripped by the dogs of a dog chain. Accordingly, second centering and guide device **20** includes a plurality of driven rollers **110** mounted on its frame **80***b* (FIGS. **5** and **6**). Additionally, the first two rotatably mounted rollers **50** of second centering device **20** are driven by a hydraulic motor **120** mounted on frame **80***b* each pivot arm **60** (FIG. **6**). Suitable hydraulic connections are provided. These provide the primary means for driving a log through the remaining three pairs of rollers **50,** the remaining **3** pairs of rollers **50** being freely rotatable. The driven rollers **110** assist in driving a log therethrough.

The pivot arms **60** upon which readily compressible, resilient rollers **50** are mounted are basically the same for both centering and guide device **10** and **20** (compare FIGS. **4** and **7**). Each pivot arm **60** includes a main arm **61** which extends to both sides of a pivot shaft **64** which passes therethrough. A vertical arm **62** extends upwardly from main arm **61** approximately at its pivot point. A top arm **63** extends from the top of vertical arm **62** outwardly to a position over the end of main arm **61** so that a readily compressible, resilient roller **50** can be rotatably mounted between the ends of top arm **63** and main arm **61.** Each roller **50** is rotatably mounted on a shaft **51** which extends between the ends of arms **61** and **63.** Pivot shaft **64** is then mounted in appropriate barracks on either frame **80***a* or frame **80***b* for first or second centering and guiding devices **10** or **20,** respectively.

The only essential difference between the pivot arms **60** shown in FIGS. **4** and **7** is that the pivot arm **60** shown in FIG. **7,** for use in the second centering and guide device **20,** includes an extension **68** depending downwardly from that end of main arm **61** which is away from roller **50.** The purpose of extension **68** is to provide a more convenient mounting point for mounting air spring **70** between pivot arm **60** and frame **80***b*. Since rollers **110** take up more space below the level of rollers **50** than does dog chain **100,** extension **68** is required to effectively place the end of pivot arm **60** in juxtaposition to a suitable portion of frame **80***b* between which air springs **70** can be connected. For pivot arm **60** for use in first centering and guide device **10** (FIG. **4**), air spring **70** is conveniently mounted directly to the end of main arm **61.**

Frame **80***a* of first centering device **10** includes a pair of spaced, top longitudinal beams **81** joined together by three spaced top lateral beams **82** (FIGS. **2** and **3**). This top assembly is joined to a pair of spaced bottom longitudinal beams **83** by means of a pair of spaced vertical beams **88** on either side of frame **80***a*. The bottom longitudinal beams **83** in turn are joined by three bottom lateral beams **84.**

To facilitate mounting of anchor arms **86** to frame **80**a, a pair of supplemental longitudinal beams **85** extend longitudinally of frame **80***a* on top of bottom lateral beams **84.** Four of the six anchor arms **86** which act as an anchor to which air springs **70** are mounted, are mounted on top of supplemental longitudinal beams **85** and on top of bottom longitudinal beams **83** (FIG. **2**). Specifically, the anchor arms **86** for the last two pairs of rollers **50** are mounted in this manner. They are cocked at an angle with respect to frame **80***a* and with respect to longitudinal beams **83** and **85** which is approximately the same as the angle at which pivot arms **60** are cocked. Since the lead pair of anchor arms **86** must extend beyond the end of frame **80***a*, they are welded directly to the first lateral crossbeam **84** (see FIG. **3**). An anchor plate **87** extends upwardly therefrom to a point in alignment with the end of main arm **61** of pivot arm **60** such that an air spring **70** can be mounted between anchor plate **87** and the end of main arm **61.**

In first centering device **10,** the pivot shaft **64** for pivot arms **60** are mounted in bearings which are secured to lateral beams **82** at the top and bottom lateral beams **84** at the bottom.

Frame **80***b* for second centering device **20** comprises four square box frames **91** (FIGS. **1, 5** and **6**). A pair of top longitudinal beams **92** are mounted on top of box frames **91** and extend generally the length of centering device **20** and beyond the front end thereof to a point above feed table **30.** The bottom crossbeams of box frames **91** pass beneath a bed frame **93** which provides the basic support for box frames **91.** Bed frames **93**

comprises a generally rectangular frame having legs extending downwardly therefrom.

The driven steel rollers **110** are mounted on top of bed frame **93.** Pivot shaft **64** of pivot arms **60** are rotatably mounted in bearings which in each case are secured to the top cross frame member of box frame **91** (FIG. 7). The anchor arms **86** to which air springs **70** are mounted are welded to the bottom crossbeam of box frame **91** and lie generally parallel to pivot arms **60.** Extension **68** extends downwardly generally into juxtaposition with the end of anchor arm **86** and air spring **70** is mounted between the end of anchor arm **86** and the bottom end of extension **68** (FIG. 7).

Each of the air springs **70** comprises a hollow rubber member mounted between two end plates, such air springs being available commercially. Each air spring **70** includes a valve stem **71** extending therefrom which facilitates filling air springs **70** to varying pressures (FIGS. 4 and 7). Typically, air springs **70** as used in the present invention are filled to approximately 5 pounds. However if a run of smaller diameter logs are to be passed through centering devices **10** and **20,** air springs **70** can be filled to a greater pressure such that rollers **50** are biased more strongly towards one another. For runs of larger diameter logs, air can be let out of air springs **70** so that rollers **50** can be spread apart more readily to accommodate larger diameter logs.

Feed table **30** which is associated with second centering device **20** receives a cant after the side boards have fallen off a chute **3** and rotates the cant over onto its side and centers the log generally with respect to centering device **20.** To accomplish this result, a plurality of steel rollers **31** are mounted on a frame **32** cocked at a slight angle to a guide **35** which is also mounted on frame **32** and extends generally the length thereof (FIG. 5). Guide **35** comprises a long, straight steel beam positioned at one side of frame **32.** All of the rollers **31** are driven, the end roller being driven by a motor **33** and successive rollers being driven by intermediate drive chains **34.** Because the steel rollers **31** are inclined at an angle to guide **35,** they tend to drive a cant towards guide **35.** When the log hits guide **35,** or possibly even before, the rotating steel rollers **31** tend to roll the cant over onto its flat side. This insures that the cant will be properly oriented as it is fed into centering device **20** and as centering device **20** feeds the cant into gang edger **4.**

In order to positively drive the cant into engagement with the first two driven rollers **50** of centering device **20,** a spur feeder **40** is mounted to top longitudinal beams **92** above feed table (FIG. 6). Spur feeder **40** comprises a toothed spur wheel **41** rotatably mounted on the end of a support arm **42.** Support arm **42** is in turn pivotally mounted at its opposite end on a drive shaft **47.** Drive shaft **47** is rotatably mounted between a pair of spaced, downwardly depending mounting plates **48** which are welded to top longitudinal beams **92.** A motor **44** mounted on top of top longitudinal beams **92** drive shaft **47** which in turn drives spur wheel **41** by means of interconnecting drive chain **43.** A support chain **45** extends downwardly from a cross-beam **92***a* which extends between top longitudinal beams **92** (FIG. 5). Support chain **45** holds spur feeder **40** suspended. Mounted between a second crossbeam **92***b* and support arm **42** is an air spring **46** which biases spur wheel **41** downwardly firmly against the surface of a cant being fed into rollers **50.**

Motor **33** which drives steel rollers **31** also drives the steel rollers **110** which are positioned below compressible rollers **50** in second centering device **20.** A drive chain **34** extends from the last steel roller **31** to a universal drive member **111** which in turn is connected to the first steel roller **110** (FIG. 5). A plurality of interconnecting drive chains **112** then drive successive rollers **110.**

In operation, a log is conveyed by dog chain **100** to the first centering device **10.** Dog chain **100** drives the log entirely through centering device **10** and into scragg saw **2** (FIGS. 1 and 2). As the log passes between the freely rotatable rollers **50,** it is positively centered thereby. Local irregularities in the surface or configuration of the log are absorbed by the readily compressible, resilient rollers **50.** To accommodate variations in overall diameter, air springs **70** compress inwardly and push outwardly. Once the log reaches scragg saw **2,** the drive means of the scragg saw **2** itself take over and finally drive the log through the saw.

At chute **3,** the side boards which have been cut off of either side of the log fall off. The resulting cant includes two flat sides which at this point, are oriented generally vertically. The cant is conveyed by a dog chain onto roller feed table **30.** If the cant has already not fallen over on its flat side, the driving action of rollers **31** cause it to do so. Because the driven rollers **31** are oriented at an angle to guide **35,** the cant is driven against the side of guide **35** and into position below spur feeder **40.** Spur wheel **41** of spur feeder **40** engages the cant and, with the help of driven rollers **31,** drives the cant into position between the first two rollers **50** of second centering device **20** (FIGS. 5 and 6). These first two rollers **50** are driven by motors **120.** Thus, the first pair of rollers **50** serve not only as centering means, but also as a drive means for driving the cant forwardly. These driven rollers **50,** along with the driven steel rollers **110** which are positioned below rollers **50,** drive the cant forwardly through the remaining three pair of idler rollers **50.** As with the rollers **50** of centering device **10,** these rollers **50** serve to absorb local irregularities in the surface and configuration of the log while the air springs **70** accommodate variations in overall diameter of the cants. The cants are driven into engagement with the drive means of gang edger **4** which finally cuts the cant into boards having the desired dimensions.

The cant shown in FIG. **8** graphically illustrates the exceptional nature of this contribution to the art. The cant shown in FIG. **8** was delivered to the gang edger at a speed of in excess of 150 feet per minute. Yet, the cant was centered with respect to gang edger **4** in the most optimum possible manner. Such an irregularly shaped cant could not possibly have been handled by conventional centering and sawing devices.

Of course, it is understood that the above is merely a preferred embodiment of the invention and that various alterations thereof may be made without departing from the spirit and broader aspects of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A device for centering moving logs or the like as they are fed into a sawing apparatus or the like, said device comprising: a supporting frame; at least one pair of generally oppositely disposed pivot arms, each pivotally mounted on said frame; a readily compressible, re-

silient roller for each said pivot arm, rotatably mounted on said pivot arm at a point spaced from the pivot point of said pivot arm whereby said readily compressible, resilient rollers are pivotable towards and away from one another; bias means operably connecting said pivot arm and said frame to thereby bias said rollers to pivotable movement towards one another whereby when a log passes between said rollers, said rollers compress individually and pivot away from one another to absorb irregularities in a log or the like while still holding said log or the like generally centered therebetween.

2. The device of claim **1** in which said bias means is operably connected to said pivot arm at a point spaced from its pivot point and on the opposite side of said pivot point from said readily compressible, resilient roller.

3. The device of claim **1** in which said bias means comprises an air spring.

4. The device of claim **3** in which said air spring is filled to a pressure of approximately five pounds.

5. The device of claim **3** in which each said air spring includes means for varying the air pressure therein to increase or decrease the extent to which said rollers can be pivoted away from one another whereby said device can be adjusted to accommodate differing sized logs.

6. The device of claim **3** in which a number of pairs of said pivot arms and said rollers are spaced along the path followed by a log as it is fed into a sawing apparatus or the like, said pairs of pivot arms and rollers extending for a distance approximately equal to the length of a log being passed therethrough whereby the entire length of the log is controlled as the log enters a sawing apparatus.

7. The device of claim **3** in which said readily compressible, resilient rollers comprise hollow, air-filled members filled with air to a pressure just sufficient to inflate said hollow members and cause them to hold their shape until engaged by a log or the like.

8. The device of claim **7** in which said hollow, air-filled rollers are filled to a pressure of approximately 1½ pounds; each said air spring including means for varying the air pressure therein to increase or decrease the extent to which said rollers can be pivoted away from one another whereby said device can be adjusted to accommodate differing sized logs.

9. The device of claim **8** in which said air spring is filled to a pressure of approximately 5 pounds.

10. The device of claim **1** in which one pair of said readily compressible, resilient rollers are rotatably driven the rest of said rollers being freely rotatable; said driven rollers being positioned ahead of said freely rotatable rollers for driving a log through said freely rotatable rollers and into a sawing apparatus or the like; a motor mounted on each pivot arm carrying a driven roller, said motor being operably connected to said driven roller for driving the same.

11. The device of claim **1** in which said bias means includes means for varying the bias strength thereof whereby said device can be adjusted to accommodate differing sized logs.

12. A device for sawing logs or the like comprising: a first sawing apparatus for sawing a log into a cant having two opposite flat sides; a first centering and guiding device for centering logs as they are moved into said first sawing apparatus, said centering device including at least two readily compressible, resilient rollers spaced on opposite sides of a path which is centered with respect to said first sawing apparatus, said centering and guiding device comprising the final guide means which control said log as it passes into said sawing apparatus; a second sawing apparatus for sawing said cant into boards; a second centering device positioned behind said first sawing apparatus and ahead of said second sawing apparatus for centering and guiding said cants as they are moved into said second sawing apparatus, said second centering and guiding device comprising at least two oppositely disposed, readily compressible, resilient rollers spaced on opposite sides of a path which is centered with respect to said second sawing apparatus, said second centering and guiding device comprising the final guide means which controls the centering of a log as it passes into said second sawing apparatus.

13. The device of claim **12** in which said second centering and guiding device includes a plurality of driven feed rollers positioned ahead of said readily compressible, resilient rollers, a straight, generally flat guide positioned above said feed rollers; said feed rollers being disposed at an angle to said guide so that said feed rollers drive said cant into said guide and cause it to roll over onto a flat side such that the unsawed, rough sides of said cant are engaged by said readily compressible, resilient rollers of said second centering and guiding device as said cant passes therethrough.

14. The device of claim **13** which includes a driven wheel positioned above said driven feed rollers and immediately ahead of said readily compressible, resilient rollers whereby said cant is engaged by said wheel and driven thereby into position between said readily compressible, resilient rollers.

15. The device of claim **13** in which each said centering and guiding device comprises: a number of pairs of said readily compressible, resilient rollers spaced along the path followed by a log as it is fed into a sawing apparatus, said pairs of rollers extending for a distance approximately equal to the length of a log whereby the entire length of a log is controlled as it begins to enter a sawing apparatus.

16. The device of claim **15** in which said second centering and guiding device includes means for rotating at least one pair of said compressible, resilient rollers, the rest of said rollers being freely rotatable, said driven rollers being positioned ahead of said freewheeling rollers whereby said driven rollers drive said cant through said freely rotatable rollers and into said second sawing apparatus.

17. The device of claim **16** in which said first centering and guiding device in which all of said readily compressible, resilient rollers are freely rotatably mounted, said first centering and guiding device including a drive chain passing generally between said rollers for driving a log therebetween.

18. The device of claim **12** in which each said centering and guiding device comprises: a number of pairs of said readily compressible, resilient rollers spaced along the path followed by a log as it is fed into a sawing apparatus, said pairs of rollers extending for a distance approximately equal to the length of a log whereby the entire length of a log is controlled as it begins to enter a sawing apparatus.

19. The device of claim **18** in which said second centering and guiding device includes means for rotating at least one pair of said readily compressible, resilient

rollers, the rest of said rollers being freely rotatable, said driven rollers being positioned ahead of said free-wheeling rollers whereby said driven rollers drive said cant through said freely rotatable rollers and into said second sawing apparatus.

20. The device of claim **19** in which said first centering and guiding device in which all of said readily compressible, resilient rollers are freely rotatably mounted, said first centering and guiding device including a drive chain passing generally between said rollers for driving a log therebetween.

* * * * *