J. O. BRADNEY AND H. PRIESTER.

AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

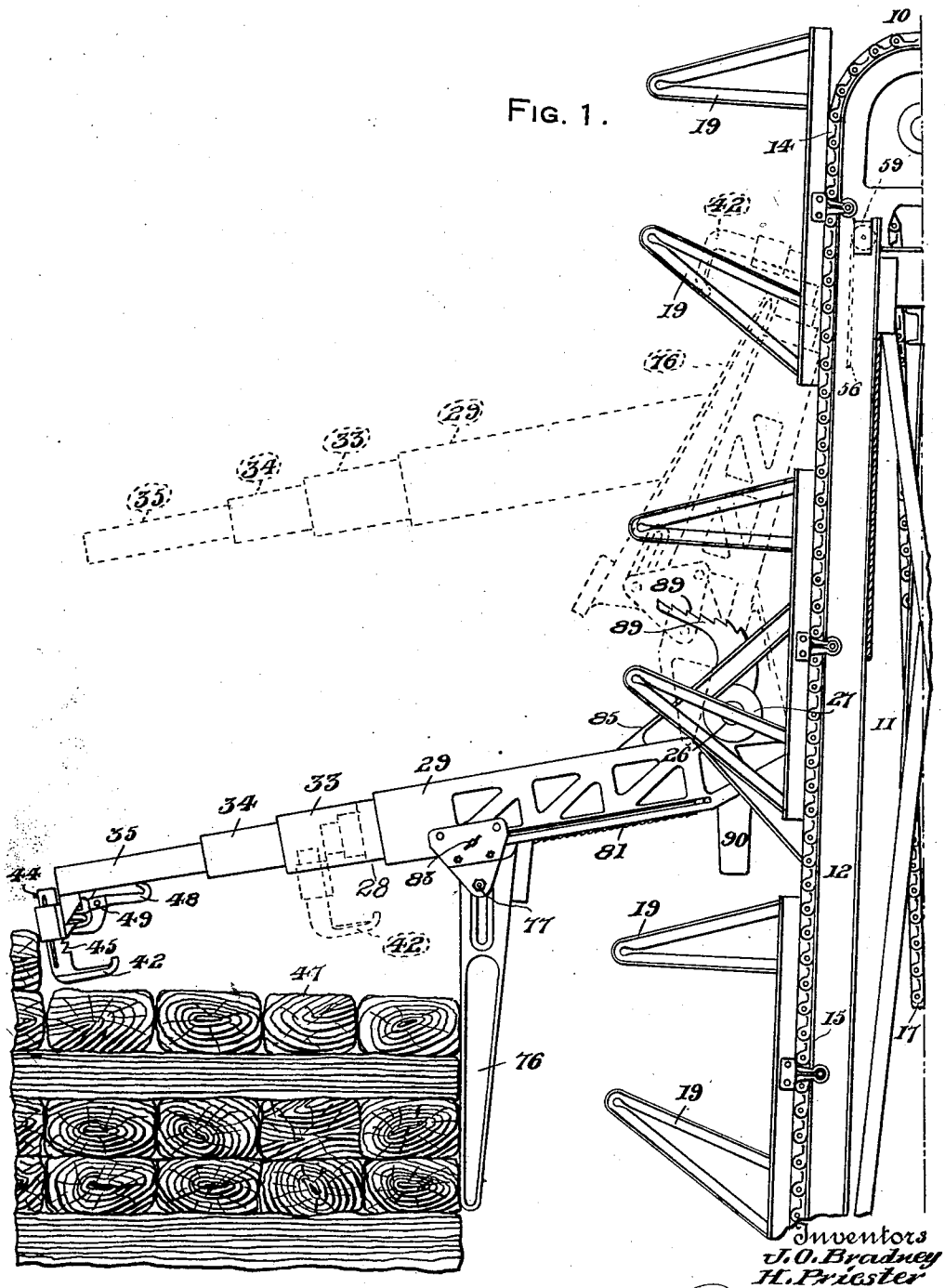
APPLICATION FILED NOV. 4, 1918.

1,325,074.

Patented Dec. 16, 1919.

6 SHEETS—SHEET 1.

FIG. 1.



Inventors
J. O. Bradney
H. Priester

By T. W. Bryant.
Attorney.

J. O. BRADNEY AND H. PRIESTER.

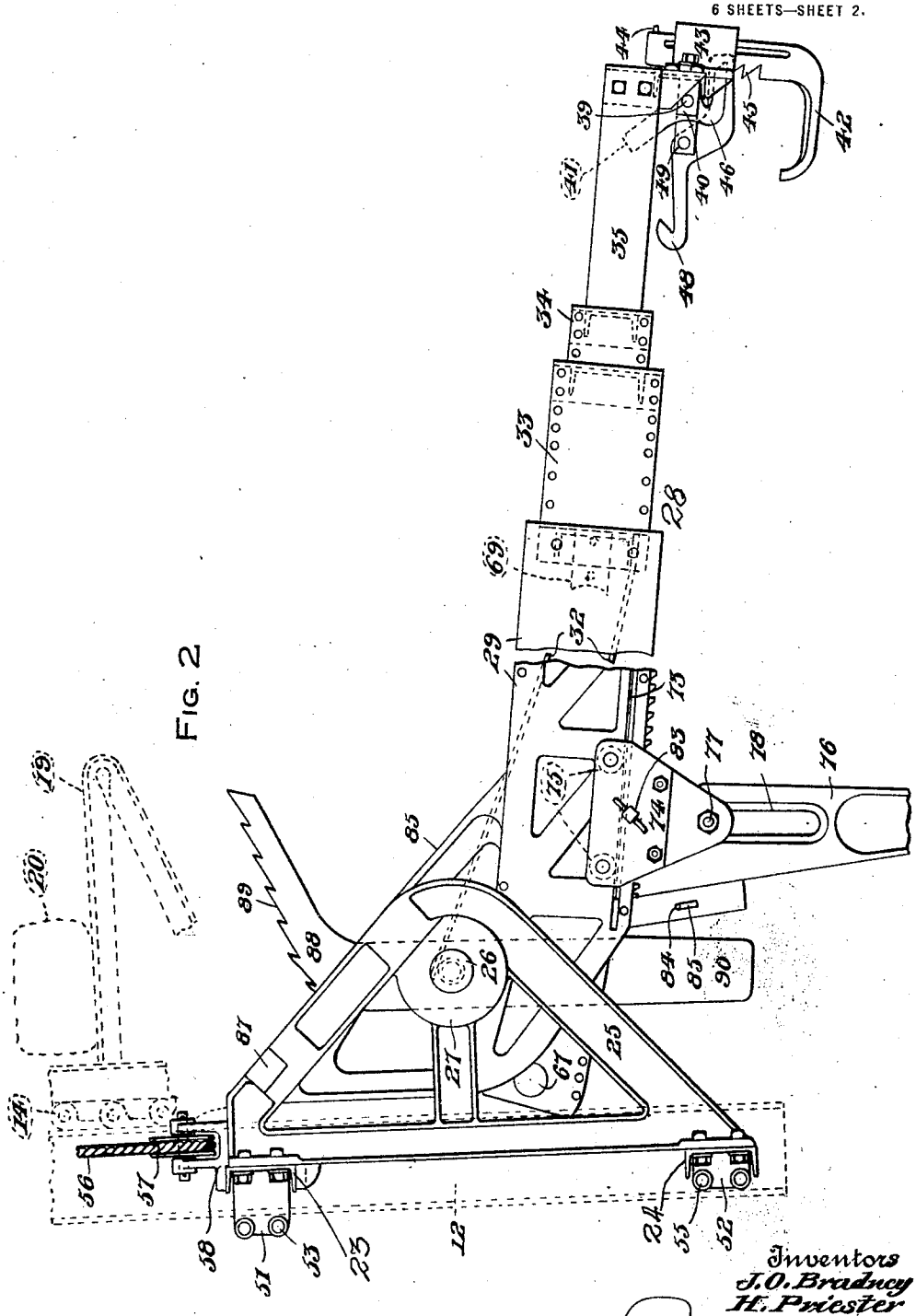
AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

APPLICATION FILED NOV. 4, 1918.

1,325,074. Patented Dec. 16, 1919.

6 SHEETS—SHEET 2.

FIG. 2



Inventors
J. O. Bradney
H. Priester

By T. O. Bryant Attorney.

J. O. BRADNEY AND H. PRIESTER.

AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

APPLICATION FILED NOV. 4, 1918.

1,325,074.

Patented Dec. 16, 1919.

6 SHEETS—SHEET 3.

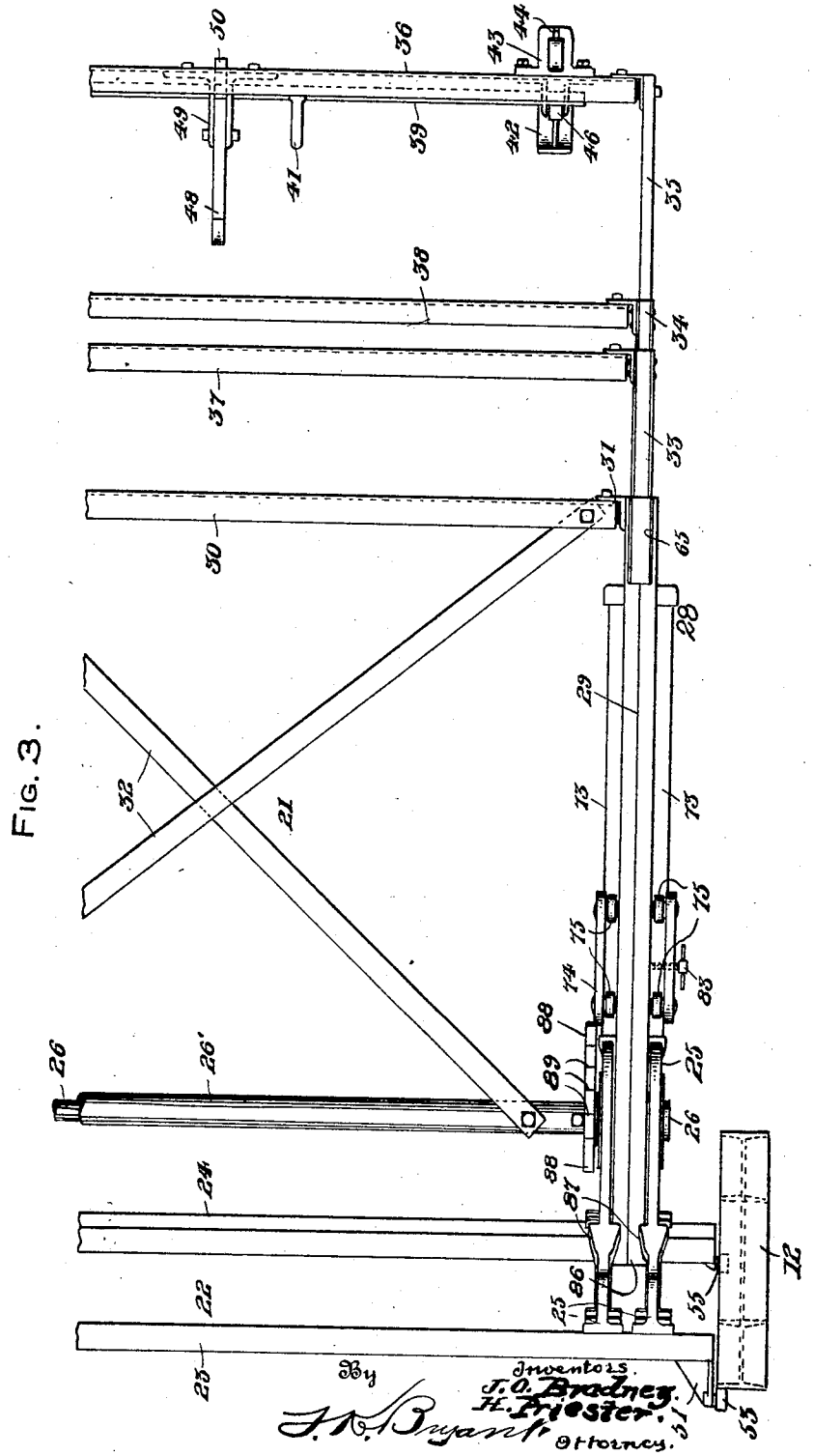


FIG. 3.

J. O. BRADNEY AND H. PRIESTER.

AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

APPLICATION FILED NOV. 4, 1918.

1,325,074.

Patented Dec. 16, 1919.

6 SHEETS—SHEET 4.

FIG. 5.

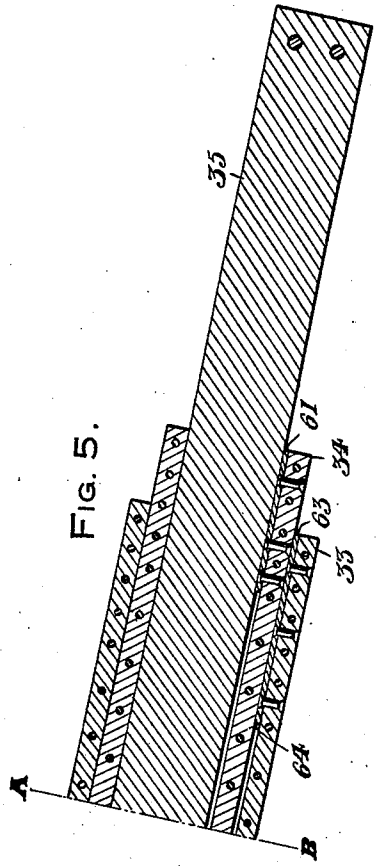


FIG. 4.

Inventors
J. O. Bradney
H. Priester

Attorney.

J. O. BRADNEY AND H. PRIESTER.

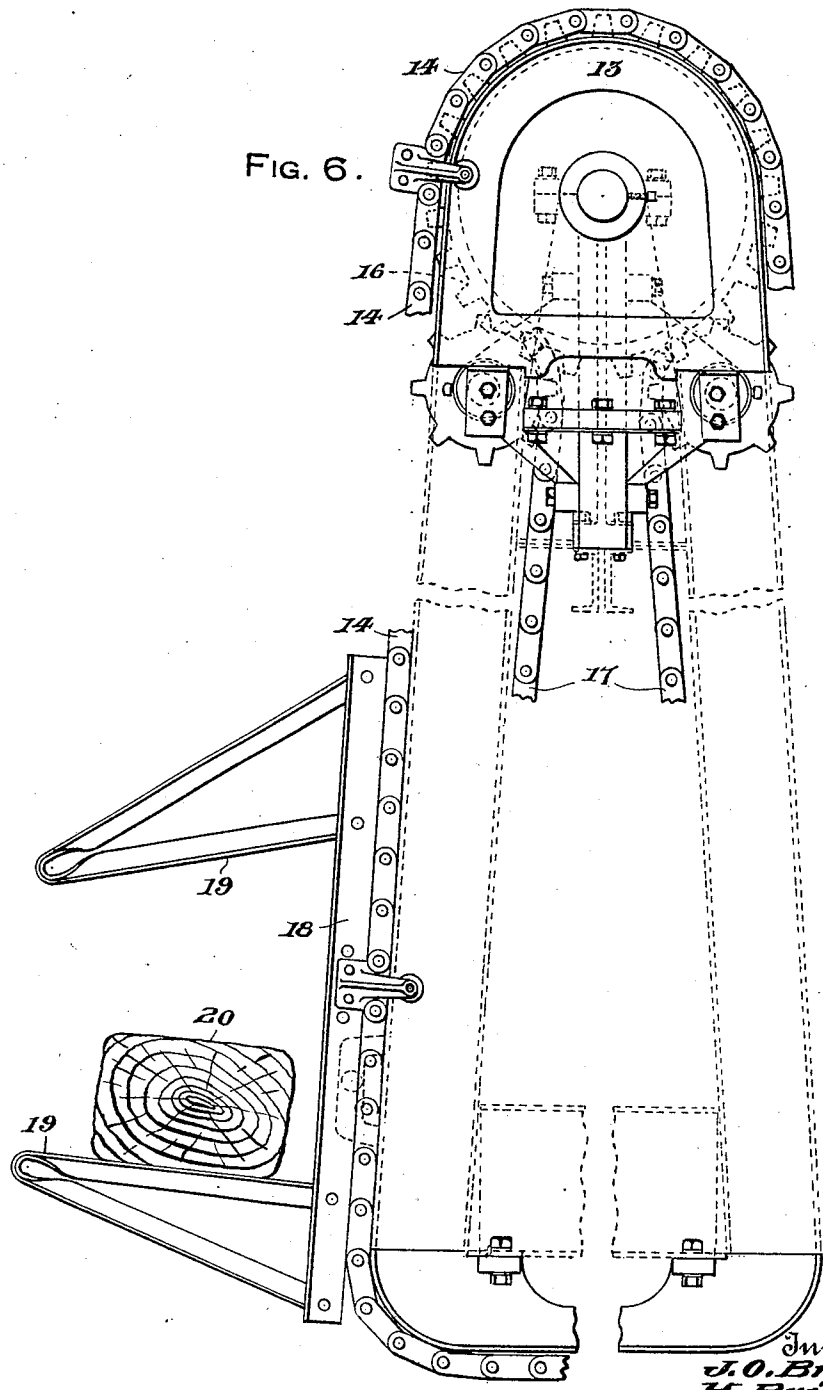
AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

APPLICATION FILED NOV. 4, 1918.

1,325,074. Patented Dec. 16, 1919.

6 SHEETS—SHEET 5.

FIG. 6.



Inventors
J. O. Bradney
H. Priester

By T. K. Bryant
Attorney.

J. O. BRADNEY AND H. PRIESTER.

AUTOMATIC UNLOADER FOR TIMBER PILING MACHINES.

APPLICATION FILED NOV. 4, 1918.

1,325,074.

Patented Dec. 16, 1919.

6 SHEETS—SHEET 6.

FIG. 7.

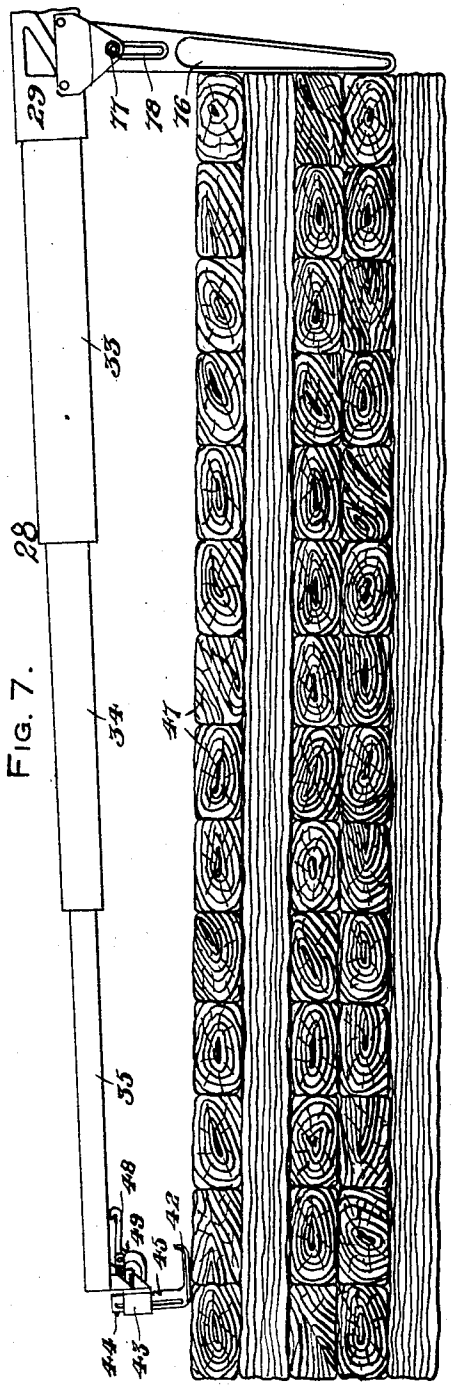


FIG. 9.

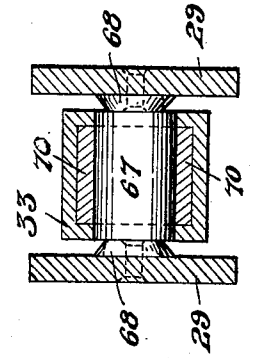
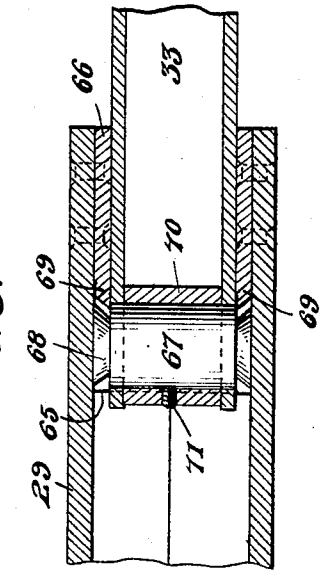


FIG. 8.



Inventors
J. O. Bradney
H. Priester

By T. W. Bryant Attorney.

UNITED STATES PATENT OFFICE.

JAMES O. BRADNEY AND HENRY PRIESTER, OF MIDDLETOWN, NEW YORK, ASSIGNORS TO BRADNEY MACHINE COMPANY, INC., OF MIDDLETOWN, NEW YORK, A CORPORATION OF NEW YORK.

AUTOMATIC UNLOADER FOR TIMBER-PILING MACHINES.

1,325,074. Specification of Letters Patent. **Patented Dec. 16, 1919.**

Application filed November 4, 1918. Serial No. 261,117.

To all whom it may concern:

Be it known that we, JAMES O. BRADNEY and HENRY PRIESTER, citizens of the United States of America, residing at Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Automatic Unloaders for Timber-Piling Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in automatic unloaders for timber piling machines.

The primary object of the invention is the provision of an automatic unloading device for machines of the type set forth in the Hilke Patent No. 1,053,391 and in which the ties or timbers being piled by the machine move downwardly toward the deposit or discharge point, our device being adapted for positioning at any desired elevation upon the discharge side of the piler for automatically removing the ties or timbers therefrom and transferring the same to a pile being formed adjacent the side of the machine.

A further object of the invention is to provide a ready means for unloading timbers and ties from a piling elevator and arranged for vertical adjustment as the formation of the pile increases in height, arrangement being made for maintaining the unloader horizontal during the operation of the device and while the top layer or tier of the pile is always slightly inclined.

A still further object of the device is to provide in connection with a timber piler having slightly inclined sides, an automatic unloader for the articles elevated by the piler arranged with an automatic follower or gage for maintaining the adjacent side of the pile vertical and providing a ready means for building up the pile to an altitude adjacent the top of the piler.

It will be understood that the form of piler herein referred to includes a substantially vertical tower having a loading side for timber and the like adapted for receiving the timbers which are then elevated and lowered upon the opposite side of the tower, which is the unloading side. An automatic loader for such a piler has been fully set forth and claimed in our companion application upon automatic loaders for tie and timber piler, Serial No. 261,116, filed November 4, 1918, while our invention set forth herein comprises an automatic unloader for the timber at the opposite or unloading side of the tower. The piler is adapted for bodily movement to the place of piling and the downwardly moving timbers are taken off of the piler by our unloader and fed to a point laterally of the piler for forming a stack or pile by the person in charge, the timbers being automatically fed to the stack continuously during the operation of the piler, means being provided upon the piler for vertically adjusting the unloader during the piling operation. The vertical adjustment of the unloader is controlled at either end of the piler, being operated independent from the timber elevating mechanism and the unloader being serviceable for quickly piling large numbers of timbers in piles of uniform size, the unloader being designed for arrangement compactly folded against the adjacent side of the piler when not in use.

It is also an object of our invention to provide a telescoping unloader adjustable in length upon the pile of timber being formed thereby so that the discharge end of the unloader may be moved across the pile during the unloading operation. It is further designed to provide the unloader with automatic means for imparting a suitable impulse to the timber for moving the same over the unloader onto the stack while means are also arranged for normally maintaining the unloader at a fixed inclination when swung downwardly at its lowest inclination while suitable means are provided for retaining the unloader in its collapsed arrangement when desired for folding the same.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and then claimed.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views,

Figure 1 is an elevational view of a por-

tion of the unloading side of a piler provided with my device illustrating the tie stacking operation, the folded as well as the uppermost and the collapsed position of the device being illustrated therein by dotted lines.

Fig. 2 is an enlarged side elevational view of the unloader partially broken away and with the mounting I-beam of the piler indicated by dotted lines.

Fig. 3 is a top plan view of slightly more than one half of the unloader, illustrated as partly collapsed.

Fig. 4 is a vertical longitudinal sectional view of a side portion thereof substantially collapsed.

Fig. 5 is a similar view being a continuation of Fig. 4 showing the forward ends of the foremost telescoping side members.

Fig. 6 is a general view of parts of the piler broken away showing the tie arranged thereon.

Fig. 7 is a side elevation of a portion of the unloader showing its manner of engagement with a stack of ties.

Fig. 8 is a horizontal sectional view of the engaging ends of the two outer telescoping members of the unloader sides, and

Fig. 9 is a transverse sectional view thereof.

Our invention relates to an automatic unloader for a timber piler, the general construction of which may be noted by reference to the aforementioned Hilke patent, only those portions of such piler being herein illustrated as are required for a complete understanding of our unloader. The piler 10 comprises a tower 11 having I-beam side members 12 slightly converging upwardly to the semicircular top piece 13 of the piler, draft chains 14 being mounted for longitudinally traveling upon the outer flanges 15 of the beams 12. Sprocket wheels 16 are arranged in the top pieces 13 with chains 14 passing thereover while a sprocket chain 17 is arranged within the tower 11 suitably propelled and controlled at the lower end of the tower for operating the wheels 16 and chains 14.

Brackets 18 are carried by the chains 14 having frames 19 between which a timber or tie 20 is positioned when being conveyed by the piler, in a direction such as downwardly upon the unloading side of the tower 11 as shown in Figs. 1 and 6 of the drawings. Our unloader broadly consists of a table 21 arranged upon the unloading side of the tower 11 and including a mounting frame 22 comprising upper and lower channel bars 23 and 24 respectively provided adjacent each end with a pair of substantially triangular brackets 25. A transverse shaft 26 is journaled through hubs 27 provided upon the brackets 25 while telescoping side sections 28 of the table 21 are journaled upon the shaft 26 between the brackets 25 of each pair thereof by means of the innermost tubular members 29 of the said side sections.

A brace 30 is arranged transversely of the table 21 connected between the forward ends of the members 29 thereof as at 31 while stays 32 are diagonally arranged connecting a pipe 26′ mounted upon the shaft 26 with the said brace 30 as illustrated in Fig. 3 of the drawings. Tubular intermediate telescoping members 33 and 34 are provided for the side sections 28 being arranged in telescoping relations and slidably positioned within the said inner members 29, while outermost members 35 are telescopically positioned within the intermediate members 34. A front brace 36 is provided for the table 21 connected between the forward ends of the side members 35, while similar braces 37 and 38 are arranged transversely of the table 21 connected between the forward ends of the side members 33 and 34 respectively.

A shaft 39 is journaled beneath the brace 36 in suitable lugs 40 and is arranged with an operating handle 41. Adjustable depending shoes 42 are arranged adjacent the opposite ends of the brace 36 slidably positioned within mounting frames 43, a lug 44 being arranged upon each shoe 42 for limiting the downward movement of the shoe while teeth 45 are also provided upon the shoe. A pawl 46 is provided for each shoe 42 being secured to the shaft 39 for normally engaging the teeth 45 of the said shoes, it being noted that when the handle 41 is moved upwardly and forwardly, the pawls 46 will release the shoes 42 so that the shoes may drop downwardly by their own weight upon the pile of timbers therebeneath. When the table 21 is lowered for resting the shoes 42 upon the ties such as 47 as shown in Figs. 1 and 7 of the drawings and during the stacking operation, the table 21 will be held level by the operator with the pawls 46 released until the shoes 42 slidably move automatically into contact with the ties and upon releasing the handle 41, the pawls 46 will engage the teeth 45 retaining the table with the forward brace 36 thereof horizontal.

A hook 48 is pivoted upon arms 49 carried by the brace 36 adapted for engaging either of the braces 30, 37 or 38 during the telescoping of the table 24, a heel 50 being provided for the hook 48 positioned beneath the brace 36 for limiting the swinging movement of the hook. When the table 21 is fully collapsed, the hook 48 will be engaged beneath the brace 30 thereby holding the table in its closed arrangement, it only being necessary to push the sections together whereupon the hook 48 automatically engages the said brace 30, due to the weight of the heel 50 thereof. The securing of the

table closed in this manner prevents the same from opening during the passing of ties thereover when the table is closed.

The frame 22 is vertically shiftably mounted upon the sides 12 by means of brackets 51 and 52 carried by the opposite ends of the channel bars 23 and 24 respectively. Rollers 53 are provided for the brackets 51 traveling upon the adjacent inner flanges 54 of the inner sides of the I-beams 12 while similar rollers 55 of the brackets 52 travel upon the opposite sides of the said flanges 54 as best illustrated in Fig. 2 of the drawings. It will be understood that the weight of the unloader maintains the rollers 53 and 55 in closed engagement with the flanges 54. A hoisting rope 56 is provided for vertically adjusting the unloader and has its central portion positioned upon pulleys 57 mounted in brackets 58 upon the top of the frame brace 23. The rope 56 passes over sheaves 59 arranged adjacent the top of the tower 11, thence passing downwardly to any desirable form of adjustable winding means, not shown, suitably controlled in any desired manner by the operator, preferably at points adjacent either side of the piler 10.

The outer forward member 35 of each side section 28 is arranged with a side plate 60 adapted for engaging a similar plate 61 at the outer end of the member 34 and whereby the inner member 35 is prevented from being withdrawn from the inclosing member 34. In a similar manner, the section 34 has a plate 62 at its inner end adapted for engaging a plate 63 within the outer end of the side member 33 and preventing the withdrawal of the section 34. The adjacent edges 64 of the pairs of coöperating plates 62, 63 and 60, 61 are correspondingly beveled.

The member 29 has its free end portion cut away as at 65 at the top and bottom of the member 29 and arranged with plates 66 secured therein. The section 33 is arranged with an axle 67 positioned through the rear end thereof with tapered cylindrical heads 68 upon its opposite ends laterally projecting from the sides of the section member 33 and permitting the free telescoping movement of the member 33 within the member 29 but preventing the withdrawal of the section 35 therefrom by the engagement of said heads 68 with the inner beveled curved ends 69 of the plates 66. A collar 70 is arranged upon the axle 67 for retaining the axle in the member 33 while a set screw 71 retains the collar 70 upon the axle. The cut away lower ends 65 of the member 29 permit the section 33 to swing in an arcuate path vertically to an angle of approximately 45° when the section 33 is extended with the pin heads 68 engaging as stops the ends 69 of the plates 66. The rear end of the sides of the section 33 are rounded at top and bottom as at 72 for riding upon the top and bottom of the outer section member 29 during the swinging movement of the section 33 therein.

The section members 29 are provided upon their opposite sides with longitudinal tracks or ledges 73 upon which substantially triangular plates 74 are adapted to travel by means of suitable wheels 75. A piling gage in the form of a pendant 76 is swingingly mounted between the plates 74 by means of a rod 77 connecting the lower end portions of the said plates and extending through a longitudinal slot 78 of the pendant. In this manner, the pendant is swingingly suspended from the plates 74 it being noted that blocks 79 are arranged between the plates as well as connecting bolts 80.

A toothed portion 81 in the form of a rack is arranged on the underside of each section member 29 while the adjacent pendant 76 is arranged with a spring pressed latch 82 adapted for engaging the teeth 81 during the travel of the pendant 76 toward the free end of the section 29 when the plates 74 travel downwardly upon the tracks 73. By this arrangement the pendants 76 at the opposite sides of the table 21 are free to swing outwardly and away from the piler 10 but are prevented by the latches 82 from traveling inwardly toward the piler. When the pile of timbers 47 is started from the ground, the gage pendant 76 is pulled back upon the tracks 73 adjacent the piler 10 and may be locked in position by means of a thumb screw 83. When the pile increases in height the screws 83 are released permitting the pendant 76 to travel downwardly upon the tracks 73 automatically engaging the side of the pile and arranged with a straight vertical edge in contact therewith. As the height of the pile of ties increases, the unloader is elevated in a step by step movement by means of the ropes 56 and by reason of the slant of the tower 11, the pendants 76 slowly travel down the tracks 73 away from the piler and constantly maintain their positions in a true vertical line, it being understood that the latches 82 prevent any return inward movement of the pendant gages 76. A projecting pin 84 is carried by each latch 82 extending through a side slot 85 in the pendant and permitting the retraction of the latch 82 from the teeth 81 when desired for manually moving the pendants 76 toward the piler 10. The mounting of the pendants 76 upon the rods 77 permits the pendants to be swung into engagement with the adjacent sides of the section members 29 of the table 21 when the latter is swung upwarlly against the piler 10 in its inoperative arrangement as indicated by dotted lines in Fig. 1 of the drawings.

The table 21 being in the form of a telescoping distributing frame pivoted upon the shaft 26, the section members 29 are arranged with substantially triangular heels 85 at their rear ends having pads 86 at their upper ends or apexes, which pads are adapted to rest against coöperating pads 87 cast in the brackets 25.

These pads 86 and 87 limit the downward swinging movement of the distributing table 21 but allow freedom of movement toward a level plane as well as during the upward folding movement of the table to its inoperative position against the piler 10. Automatic kickers 88 in the form of curved arms having toothed upper sides 89 are journaled upon the shaft 26 adjacent to and inwardly of the brackets 25 and are suitably weighted for maintaining the said kickers in their operative upright positions as best shown in Figs. 1, 2, and 3 of the drawings. During the downward movement of a tie 47 upon the brackets 19 of the piler, the descending tie will come in contact with the toothed portions 89 of the kickers, which will swing the latter outwardly unloading the tie from the carriers, the said brackets 19 freely passing downwardly at opposite sides of the holder brackets 25. The depending lower portion 90 of each kicker 88 automatically returns the kicker to its vertical position after depositing a tie upon the table 21 and in readiness to receive a subsequent descending tie.

The side sections 28 of the table 21 are essentially of the telescopic arrangement and are herein shown rectangular in cross section, the same being easily manufactured in that form but it will be understood that the members of the sections may be of different form if desired such as cylindrical tubes. The complete operation of the device will be understood from the foregoing detailed description thereof, it being seen by referring to Fig. 1 that an operator positioned upon the pile of ties 47 may receive successive ties for forming a top row or tier and may partially collapse the table 21 by pushing inwardly upon the outer cross brace 36 thereof and causing the members of the side sections of the table to shorten by their telescopic movement. The table 21 may readily be swung vertically upon the shaft 26 when desired while the manner of leveling the front brace 36 to a horizontal position upon the sloping ties of the stack has been already described as well as the retaining of the table 21 in its collapsed arrangement by means of the swinging hook 48. It will be understood that the pile of ties 47 has each tier thereof oppositely inclined and our unloader is advantageously arranged for horizontal maintenance at a suitable inclination toward the pile being formed during the operation of the device and is readily adjustable for the formation of a pile of ties or timbers reaching from the ground to substantially the top of the tower 11. The arrangement is such that the kickers 88 insure the forcible delivery of the ties from the piler onto the distributing table 21 while either operation requires no attention, being entirely automatic and this is also true respecting the piling gages 76 which are carried by the table of the unloader.

The kickers 88 heretofore fully described operate to prevent the descending timber, such as 20, from being engaged by the upper frames 19 of the carrying brackets 18 during the operation of the device and this is by reason of the fact that the kickers 88 receive the timber from the lower frames 19 of the carrying brackets 18, such movements being automatically accomplished by the weight of the descending timber. The pipe 26′ heretofore referred to mounted upon the shaft 26 is in the nature of a spacer between the said kickers 88.

The pendant gage 76 may be swung upon the shaft 77 to a position substantially parallel with the adjacent side member 29 for sliding longitudinally upon the shaft 77 inwardly toward the frame 22. This movement of the pendant 76 brings the stops 79 of the plate 74 into contact with one side of the pendant for retaining the pendant alongside of the section member 29 when the table 21 is in its upraised inoperative position. It will be seen that by swinging the table upwardly upon its pivot shaft 26 into contact with the adjacent side of the tower 11 that the pendants 76 will assume their folded positions automatically by swinging inwardly toward the side members 29 and sliding downwardly upon the shaft 76 when the table 21 is substantially inverted in the manner set forth.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that various forms, modifications and arrangements of the parts may be made without departing from the spirit and scope of the invention as claimed.

What we claim as new is:—

1. An automatic unloader for pilers comprising a vertically adjustable frame arranged upon the unloading side of the piler and a telescoping distributing table pivoted to the said frame for the reception of timbers from the piler during the operation thereof, automatic kickers for the timbers swingingly connected to the said table adapted to automatically return to their normal positions after each operation thereof, the said kickers having toothed arms adapted for the reception of downwardly moving timbers from the piler.

2. An automatic unloader for pilers com-

prising a vertically adjustable frame arranged upon the unloading side of the piler and a telescoping distributing table pivoted to the said frame for the reception of timbers from the piler during the operation thereof, automatic kickers for the timbers swingingly connected to the said table adapted to automatically return to their normal positions after each operation thereof, the said kickers having toothed arms adapted for the reception of downwardly moving timbers from the piler, pairs of tracks longitudinally carried by the table, mounting plates slidably depending from the said tracks, vertically positioned pendants pivotally suspended from said plates adapted for automatic engagement with the adjacent side of a timber pile being formed and a spring pressed latch carried by each pendant adapted for automatic engagement with the adjacent portion of the table for preventing the return inward movement of the pendants.

3. An unloader comprising a mounting frame, a shaft forwardly carried by the frame, a distributing table having opposite longitudinal side sections journaled upon said shaft, movement limiting means for said sections whereby the table is normally positioned inclined downwardly from said frame, a curved kicker pivoted intermediate its ends upon said shaft adjacent and forwardly of said side sections of the table arranged with a depending weighted end adapted for normally maintaining the kickers upright and the upper end of each kicker being toothed and adapted for the reception of a timber thereon during the operation of the unloader whereby the timber is forcibly projected upon the table.

4. An unloader comprising a mounting frame, a shaft forwardly carried by the frame, a distributing table having opposite longitudinal side sections journaled upon said shaft, movement limiting means for said sections whereby the table is normally positioned inclined downwardly from said frame, a longitudinal track arranged upon each side of each side section, carriers movably mounted upon the said tracks, a piling gage swingingly depending from each of said carriers adapted for automatic outward movement upon said tracks and a latch for each gage adapted for preventing the return inward movement of the carriers.

5. An unloader comprising a mounting frame, a shaft forwardly carried by the frame, a distributing table having opposite longitudinal side sections journaled upon said shaft, movement limiting means for said sections whereby the table is normally positioned inclined downwardly from said frame, a curved kicker pivoted intermediate its ends upon said shaft adjacent and forwardly of said side sections of the table arranged with a depending weighted end adapted for normally maintaining the kickers upright and the upper end of each kicker being toothed and adapted for the reception of a timber thereon during the operation of the unloader whereby the timber is forcibly projected upon the table, a longitudinal track arranged upon each side of each side section, carriers movably mounted upon the said tracks, a piling gage swingingly depending from each of said carriers adapted for automatic outward movement upon said track and a latch for each gage adapted for preventing the return inward movement of the carriers.

6. In combination with a piler having a tower, downwardly moving timber carriers upon the tower, a table vertically shiftably carried by the tower between the paths of travel of said carriers, pivoting means for the table whereby the latter may be folded upwardly against the tower when not in use, kickers swingingly mounted upon said pivoting means adapted for the reception of timbers moving downwardly upon said carriers whereby the timbers are adapted for separation from the carriers and projection upon the said table.

7. In combination with a timber lowering tower having downwardly moving timber carriers thereon, a vertically adjustable frame arranged between the carriers, a distributing table pivoted to the said frame, kickers swingingly mounted at the point of pivotal connection between the said frames and table adapted for automatically projecting timbers from the carriers onto the said table during the operation of the device and automatic return means for the said kickers.

8. In combination with a timber lowering tower having downwardly moving timber carriers thereon, a vertically adjustable frame arranged between the carriers, a distributing table pivoted to the said frame, kickers swingingly mounted at the point of pivotal connection between the said frames and table adapted for automatically projecting timbers from the device onto the said table during the operation of the device, automatic return means for the said kickers, adjustable leveling means for the outer end of the table adapted for seating upon the top of a pile of timbers during the piling operation and automatic gaging devices for the side of the pile adjacent the tower mounted for traveling upon the opposite side portions of the table.

9. A distributing table for unloaders comprising tubular side members, a shaft connecting said members together adjacent one end of the table, a spacing pipe upon the said shaft between said members, a brace connected between the opposite forward ends of said brace, stays connecting the said brace with the said pipe and a plurality of

telescoping extension members telescopingly associated with the said side members.

10. A distributing table for unloaders comprising tubular side members, a shaft connecting said members together adjacent one end of the table, a spacing pipe upon the said shaft between said members, a brace connected between the opposite forward ends of said brace, stays connecting the said brace with the said pipe, an extension member telescoping within the said side members adapted for vertical swinging movement when extended to the limit of its travel and telescoping extensions telescoping with the said extension member.

11. A distributing table for unloaders comprising tubular side members, a shaft connecting said members together adjacent one end of the table, a spacing pipe upon the said shaft between said members, a brace connected between the opposite forward ends of said brace, stays connecting the said brace with the said pipe, an extension member telescoping within the said side members adapted for vertical swinging movement when extended to the limit of its travel, tubes slidably arranged within the said extension member, a brace connecting the forward ends of said tubes, plates carried within said extension member adapted for limiting the outward movement of said pipes, extension bars slidably arranged within said pipes and a connector arranged between the forward ends of said bars at the front end of the table.

12. A distributing table for unloaders comprising tubular side members, a shaft connecting said members together adjacent one end of the table, a spacing pipe upon the said shaft between said members, a brace connected between the opposite forward ends of said brace, stays connecting the said brace with the said pipe, an extension member telescoping within the said side members adapted for vertical swinging movement when extended to the limit of its travel, tubes slidably arranged within the said extension member, a brace connecting the forward ends of said tubes, plates carried within said extension member adapted for limiting the outward movement of said pipes, extension bars slidably arranged within said pipes, a connector arranged between the forward ends of said bars at the front end of the table, a swinging hook carried by the connector adapted for automatic engagement with the brace of said side members when the table is collapsed and adjustable leveling means for the table mounted upon said connector.

13. A distributing table for unloaders comprising telescoping side sections, a connecting brace between the free ends of the foremost sections at the front of the table, means adapted for pivotally mounting the said table, adjustable supporting shoes slidably carried by said brace and extending therebeneath, a rod journaled upon said brace, pawls upon said rod adapted for engaging said shoes when in their adjusted positions and a handle upon said rod adapted for shifting said pawls for releasing the shoes at will.

14. In combination with a pivotally mounted telescoping distributing table, a leveling device at the front end thereof comprising vertically shiftable shoes carried by the table and projecting therebeneath adapted for resting upon a sloping surface, the said shoes having toothed portions, a shaft journaled beneath said table adjacent the toothed portions of the shoes, pawls upon said shaft normally engaging the teeth of the shoe adapted for restraining the upward movement of the latter and an operating handle for the pawls carried by the shaft projecting in substantially an opposite direction from the said pawls.

15. In combination with each side section of an unloader table, teeth arranged upon the bottom of the said side section, outwardly projecting tracks longitudinally arranged upon said section, supporting plates arranged for traveling upon said tracks depending beneath said section, a journal connected between the lower ends of said plates, a piling gage swingingly mounted upon said journal with a longitudinal slot through which the said journal extends and a releasable spring pressed latch carried by the gage adapted for engaging said teeth for preventing the return movement of the gage.

16. In combination with each side section of an unloader table, teeth arranged upon the bottom of the said side section, outwardly projecting tracks longitudinally arranged upon said section, supporting plates arranged for traveling upon said tracks depending beneath said section, a journal connected between the lower ends of said plates, a piling gage swingingly mounted upon said journal with a longitudinal slot through which the said journal extends, a releasable spring pressed latch carried by the gage adapted for engaging said teeth for preventing the return movement of the gage, stop members connected between the said plates above said journal adapted for restraining engagement with the adjacent side of the gage when the latter is shifted upon the journal in a position substantially parallel with the said section.

17. In combination with each side section of an unloader table, teeth arranged upon the bottom of the said side section, outwardly projecting tracks longitudinally arranged upon said section, supporting plates arranged for traveling upon said tracks depending beneath said section, a journal connected between the lower ends of said plates,

a piling gage swingingly mounted upon said journal with a longitudinal slot through which the said journal extends, a releasable spring pressed latch carried by the gage adapted for engaging said teeth for preventing the return movement of the gage, stop members connected between the said plates above said journal adapted for restraining engagement with the adjacent side of the gage when the latter is shifted upon the journal in a position substantially parallel with the said section when the table is in its inoperative position, locking means for the said plates, releasing means for the latch projecting from said gage and connectors between said plates in substantially the same plane as said stop members.

18. An unloader for timber pilers comprising a mounting frame, pairs of tracks carried by the said frame, a transverse shaft journaled through the said brackets, side sections arranged between each pair of brackets, substantially triangular heel members at the rear end of each section journaled upon said shaft, restraining means for the said brackets and heel members adapted for limiting the downward swinging movement of said side sections, a spacing pipe upon said shaft between said pairs of brackets, a brace connected between the free ends of said side sections and stays connected between the said brace and pipe.

19. An unloader for timber pilers comprising a mounting frame, pairs of tracks carried by the said frame, a transverse shaft journaled through the said brackets, side sections arranged between each pair of brackets, substantially triangular heel members at the rear end of each section journaled upon said shaft, restraining means for the said brackets and heel members adapted for limiting the downward swinging movement of said side sections, a spacing pipe upon said shaft between said pairs of brackets, a brace connected between the free ends of said side sections, stays connected between the said brace and pipe, the said side sections having their forward ends cut away at the top and bottom thereof, a plurality of telescoping extension members slidably connected within said side sections adapted for swinging movement relatively of said side sections when the extension members are at their outward limit of travel relatively of said side sections.

20. An unloader for timber pilers comprising a mounting frame, pairs of tracks carried by the said frame, a transverse shaft journaled through the said brackets, side sections arranged between each pair of brackets, substantially triangular heel members at the rear end of each section journaled upon said shaft, restraining means for the said brackets and heel members adapted for limiting the downward swinging movement of said side sections, a spacing pipe upon said shaft between said pairs of brackets, a brace connected between the free ends of said side sections, stays connected between the said brace and pipe, the said side sections having their forward ends cut away at the top and bottom thereof, a plurality of telescoping extension members slidably connected within said side sections adapted for swinging movement relatively of said side sections when the extension members are at their outward limit of travel relatively of said side sections, plate and axle retaining means between the said side sections and extension members, automatic timber kickers arranged upon said shaft and automatic leveling means adjustably carried by the forward end of said extension members.

21. An unloader for timber pilers comprising a mounting frame, pairs of tracks carried by the said frame, a transverse shaft journaled through the said brackets, side sections arranged between each pair of brackets, substantially triangular heel members at the rear end of each section journaled upon said shaft, restraining means for the said brackets and heel members adapted for limiting the downward swinging movement of said side sections, a spacing pipe upon said shaft between said pairs of brackets, a brace connected between the free ends of said side sections, stays connected between the said brace and pipe, the said side sections having their forward ends cut away at the top and bottom thereof, a plurality of telescoping extension members slidably connected within said side sections adapted for swinging movement relatively of said side sections when the extension members are at their outward limit of travel relatively of said side sections, plate and axle retaining means between the said side sections and extension members, automatic timber kickers arranged upon said shaft, automatic leveling means adjustably carried by the forward end of said extension members, rollers at the corners of the frame adapted for mounting the device for vertical adjustment, vertical adjusting means operatively connected to the said frame and an automatic piling gage carried by each of the said side sections.

22. In combination with the tubular side section member of a table, stop-plates oppositely arranged within the open forward end of said section member, an extension slidably positioned within said section member, an axle transversely carried by said extension having opposite heads laterally projecting from the sides of the extension, and having paths of movement in the planes of said plates upon the relative longitudinal shifting of said extension and section member

whereby the said extension is adapted for swinging upon said section member when said heads are in contact with said plates at the upward limit of movement of said extension.

23. A pivotally mounted unloading table having tubular side members with top and bottom cutaway portions at their forward ends, stop-plates oppositely arranged interiorly of the ends of said members having curved undercut inner edges, extensions for the table slidably arranged longitudinally within the said side members, axles transversely secured through the said extensions within the said side members and arranged with tapered cylindrical heads upon the opposite ends of the axles adapted for contacting the curved edges of said plates when the extensions are at the forward limit of travel and whereby the extensions are adapted for vertical swinging movement relatively of said side members without disengagement from the latter.

24. An articulating means for telescopic members comprising a combination with a hollow rectangular member having opposite sides cut away at its forward end, plates oppositely arranged upon the side portions of said hollow member adjacent said cutaway portions and arranged with undercut curved inner ends, an extension telescoping within said hollow member, an axle transversely positioned within said extension, a positioning sleeve secured upon said axle within said extension, tapered cylindrical heads upon the opposite ends of the axle projecting from the sides of the extension adapted for seating within the curved ends of the plates when the hollow member and extension are at their outward limit of movement whereby said extension is adapted for swinging laterally of the hollow member, the inner end of the extension having rounded corners adapted for accommodating the extension end during its swinging movement within the hollow member.

In testimony whereof we affix our signatures.

JAMES O. BRADNEY.
HENRY PRIESTER.