No. 897,134. PATENTED AUG. 25, 1908.

W. PARKER.

ELEVATOR FOR BALING PRESSES.

APPLICATION FILED DEC. 3, 1907.

2 SHEETS—SHEET 1.

Fig. 1

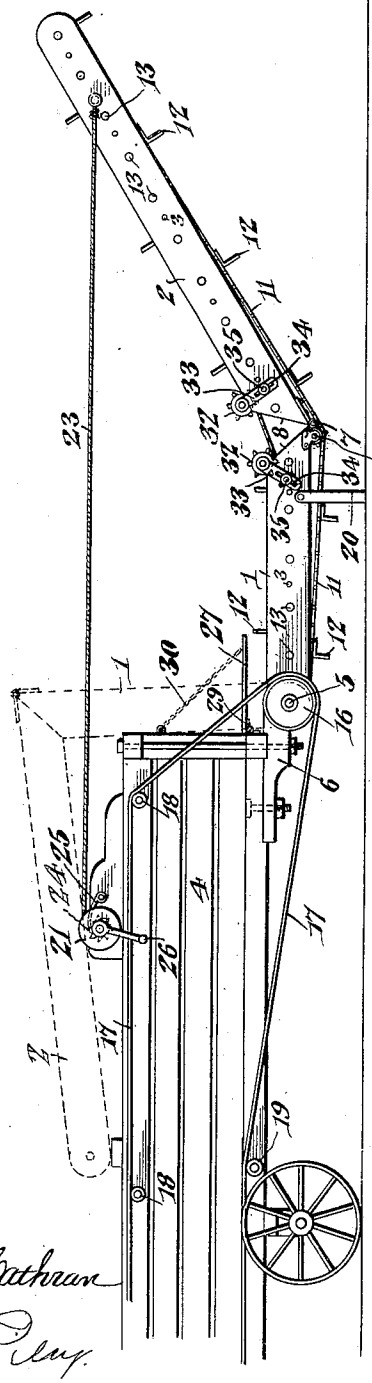
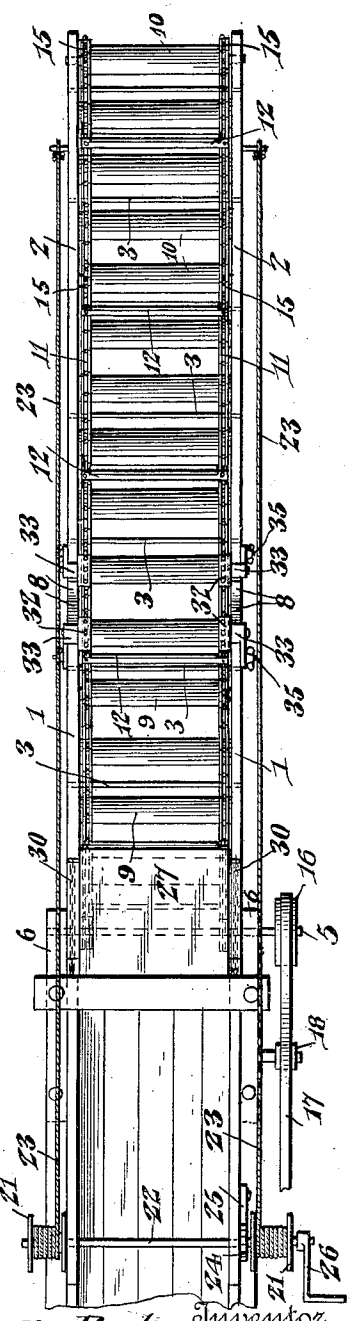


Fig. 2.



Witnesses

Jas. E. McCathran

T. J. Riley

William Parker, Inventor

By E. G. Siggers

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 897,134. PATENTED AUG. 25, 1908.

W. PARKER.

ELEVATOR FOR BALING PRESSES.

APPLICATION FILED DEC. 3, 1907.

2 SHEETS—SHEET 2.

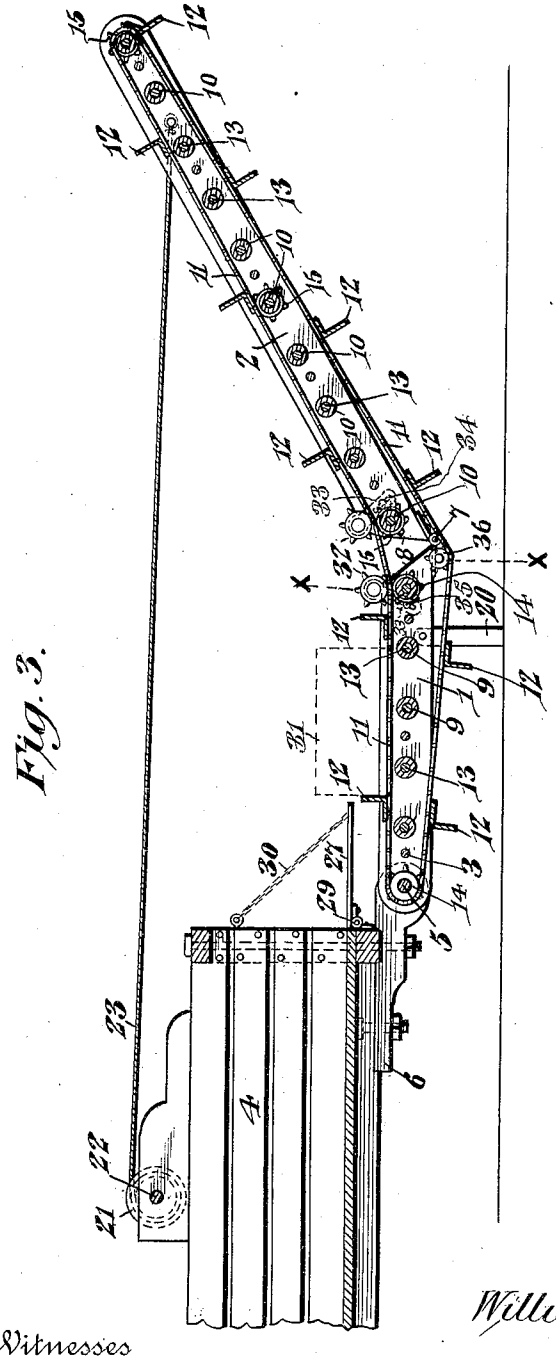


Fig. 3.

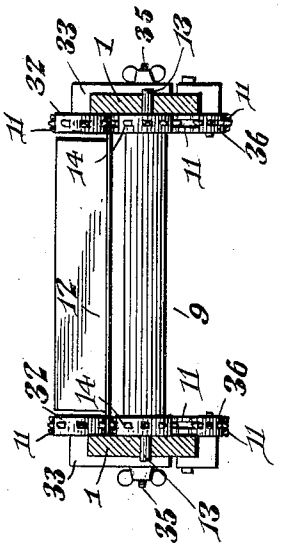


Fig. 4.

Witnesses

Jas. E. McCathran

H. T. Riley

William Parker, Inventor

By E. G. Siggers

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM PARKER, OF ELLENSBURG, WASHINGTON.

ELEVATOR FOR BALING-PRESSES.

No. 897,134. Specification of Letters Patent. Patented Aug. 25, 1908.

Application filed December 3, 1907. Serial No. 404,954.

To all whom it may concern:

Be it known that I, WILLIAM PARKER, a citizen of the United States, residing at Ellensburg, in the county of Kittitas and State of Washington, have invented a new and useful Elevator for Baling-Presses, of which the following is a specification.

The invention relates to an elevator for baling presses.

The object of the present invention is to provide a simple and comparatively inexpensive attachment for baling presses and analogous compresses, adapted to enable a bale of hay, cotton, or other material as it leaves the press to be readily handled and easily placed upon a pile.

A further object of the invention is to provide an elevator attachment of this character, adapted to be compactly arranged upon the rear portion of a baling press, when the latter is being transferred from one place to another.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of an elevator, constructed in accordance with this invention and shown applied to the rear portion of a baling press. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse sectional view, taken substantially on the line *x*—*x* of Fig. 3.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

The elevator has a frame composed of two sections 1 and 2, each provided with wooden side bars and having suitable connecting rods 3. The inner section 1, which is arranged horizontally when the elevator is in use, is hinged at its inner or front end to the rear end of the frame 4 of a baling press by means of a transverse shaft 5, journaled in suitable bearings 6 and piercing the sides of the section 1 of the elevator frame. The bearing brackets 6, which are arranged beneath the frame of the baling press, are secured to the same by bolts, or other suitable fastening devices, and they project rearwardly from the baling press frame 4. The adjacent ends of the sections 1 and 2 of the elevator frame are connected together by hinges 7, and the end edges 8 are cut away at an angle of forty five degrees to permit the sections of the elevator to be arranged at right angles to each other, as illustrated in dotted lines in Fig. 1 of the drawings, for folding the elevator upon the frame of the baling press. The leaves of the hinges 7 are secured to the lower edges of the sides of the sections of the frame of the elevator, and they may be of any preferred construction, as will be readily understood.

The elevator is equipped with transverse dead and live rolls 9 and 10 and an endless conveyer, comprising a pair of endless sprocket chains 11 and transversely disposed load-carrying connecting angle bars 12. The angle bars, which are constructed of steel, are each composed of two flanges or wings, arranged at right angles to each other, one of the flanges or wings being provided with projecting terminals secured to the sprocket chains, and the other flange or wing extending from the sprocket chains at right angles to the same. The rolls 9 and 10, which are arranged at intervals, are mounted on transverse shafts 13, and the endless sprocket chains are arranged on sprocket wheels 14 and 15. The sprocket wheels 14 are keyed, or otherwise secured to the end shaft 5, and the other sprocket wheels 15, which are located at the rear end of the elevator and at a point intermediate of the ends thereof, are mounted on the shafts of the live rolls 10, which are shorter than the said rolls 9, sufficient space being provided at each end of the rolls 10 for the sprocket wheels. The live rolls 10, which are equipped with the sprocket wheels, are continuously rotated when the elevator is in operation.

The inner transverse shaft 5 carries a pulley 16, which receives a drive belt 17, extending rearward from the front portion of the baling press and located at one side thereof and having upper and lower flights or stretches arranged on idlers 18 and 19, but the means for operating the elevator may be arranged in any other suitable manner, as will be readily understood. The front section 1 is supported in a horizontal position by means of legs 20, pivoted at their upper ends to the outer faces of the sides of the inner section of the elevator and adapted to be

folded longitudinally of the inner section, when the latter is folded against the frame of the baling press. The rear or outer section of the elevator is adapted to be arranged at different angles or inclinations, and is designed to be gradually raised as the pile of bales increases in height, so that the bales will be discharged by the elevator upon the top of the pile. The rear inclined section of the elevator is supported by an adjusting device, composed of a pair of drums 21, mounted on a transverse shaft 22 and receiving wire cables 23, or other suitable flexible connections, which are secured at their outer ends to the inclined section of the elevator thereof. The transverse shaft 22 is journaled in suitable brackets upon the frame of the baling press at the top of the rear end thereof, as clearly shown in Figs. 1 and 3 of the drawings, and it is equipped with suitable ratchet mechanism for holding the shafts against retrograde rotation.

The ratchet mechanism preferably consists of a ratchet wheel 24 and a pawl 25, mounted in one of the bearings and engaging the ratchet wheel, which is keyed or otherwise secured to the shaft 22. The shaft 22 is also equipped with a crank handle 26 for enabling the adjusting means to be readily operated for raising or lowering the inclined section of the elevator.

The baling press is provided at its rear end with a bale-receiving platform 27, connected at its inner or front edge to the frame of the baling press at the bottom thereof by suitable hinges 29, and supported in a horizontal position by chains 30. The platform, which forms an extended support for the baling press, is adapted when folded to close the mouth of the same. The bale is transferred from the platform to the elevator, and is engaged by the upwardly projecting portion of one of the transverse load-carrying connecting bars or members 12, and is conveyed along the elevator frame to the rear discharging end thereof. The bale 31, illustrated in dotted lines in Fig. 3 of the drawings, is supported by the transverse rolls, which rotate to enable the bale to readily pass over them. The positive rotary movement of the rolls having the sprocket gears assists in conveying the bales rearwardly, and any number of rollers may be provided with such gears, which also support the upper stretches of the sprocket chains.

The upper flights of the sprocket chains are maintained in engagement with the sprocket gears by means of idler sprocket wheels 32, located at the hinged ends of the sections of the elevator frame and mounted on adjustable plates or members 33, provided with slots 34 and secured to the sides of the sections by bolts 35, or other suitable fastening devices. By adjusting the plates or members, which carry the idler sprocket wheels, the endless chains may be varied in tension and made as tight or loose as desired. These idler sprockets prevent the chains from getting out of mesh with the sprocket gears through any adjustment of the inclined section. The inner section is provided adjacent to the inner end of the outer section with sprocket pinions 36, adapted to hold the lower flights or fingers of the sprocket chains out of engagement with the sections of the elevator frame.

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

1. The combination with a baling press, of an elevator comprising a frame hinged to the rear end of the baling press and provided with a plurality of foldable sections, the inner section being arranged horizontally in position to receive the bales from the baling press, and a platform hinged to the baling press and foldable against the rear end thereof and extending outward therefrom over the horizontal section of the elevator.

2. The combination with a baling press, of an elevator hingedly connected to the bottom of the baling press and extending outwardly therefrom first in a horizontal and then in an upwardly inclined direction, and a platform hinged to the baling press at the mouth thereof and arranged when let down in a horizontal position to extend out from the bottom of the press so as to form an extended support, said platform being foldable against the rear end of the baling press and extending outwardly therefrom over the inner portion of the elevator and above the same.

3. An elevator for baling presses, etc. comprising a frame composed of hinged sections, load-supporting rolls extending across the sections, sprocket gears mounted on the sections, an endless sprocket chain arranged on the sprocket wheels, transversely disposed load-carrying connecting bars secured to the sprocket chains and arranged to carry a load supported by the said rolls, and idler sprockets adjustably mounted on the sections at the adjacent ends thereof and engaging the sprocket chains to prevent the chains from getting out of mesh with the sprocket wheels through any adjustment of the sections and also to vary the tension of the sprocket chains.

4. An elevator of the class described comprising a frame, transversely disposed load supporting rolls extending across the frame, a conveyer including side sprocket chains, and sprocket wheels arranged at intervals and mounted on the rolls and meshing with the sprocket chains to form live rolls to cooperate with the conveyer.

5. An elevator of the class described comprising a frame, transversely disposed load-supporting rolls extending across the frame, a conveyer including side sprocket chains

and transversely disposed load-carrying connecting bars, and sprocket wheels arranged at intervals and mounted on the rolls and meshing with the sprocket chains to form live rolls to coöperate with the conveyer.

6. An elevator of the class described comprising a frame, sprocket wheels arranged at intervals, side sprocket chains meshing with the sprocket wheels, transversely disposed load-carrying bars secured to the sprocket chains and having outwardly projecting load-carrying flanges, and a series of load-supporting rolls extending across the same, said rolls being provided at intervals with sprocket wheels meshing with and operated by the sprocket chains to form live rolls.

7. An elevator for baling presses, etc. comprising a frame, an endless conveyer including spaced sprocket chains, and connecting transverse load-carrying bars or members secured to the chains, and a series of rolls mounted within the frame for supporting the load, said series being provided with live rolls arranged at intervals and coöperating with the endless conveyer.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM PARKER.

Witnesses:
W. B. DUNSWORTH,
WILLIAM D. BAKER.