No. 813,013. PATENTED FEB. 20, 1906.

A. LORENZ.

HAY PRESS.

APPLICATION FILED DEC. 14, 1904.

2 SHEETS—SHEET 1.

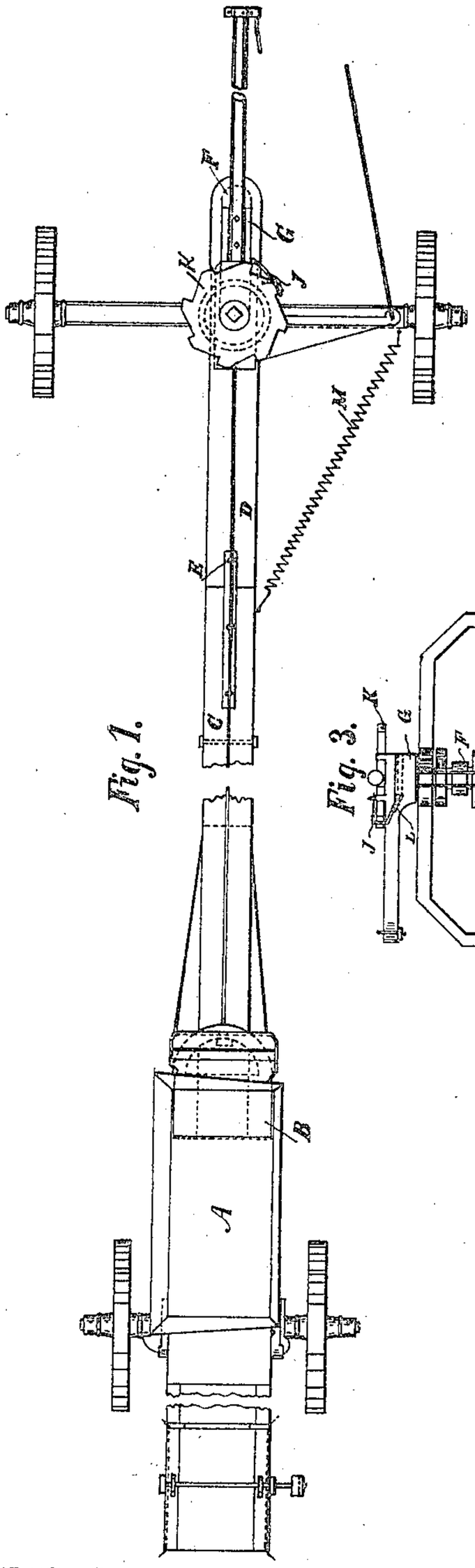


Fig. 1.

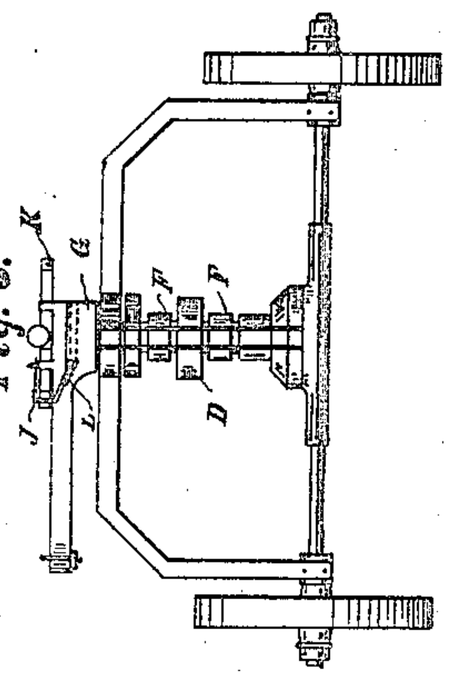


Fig. 3.

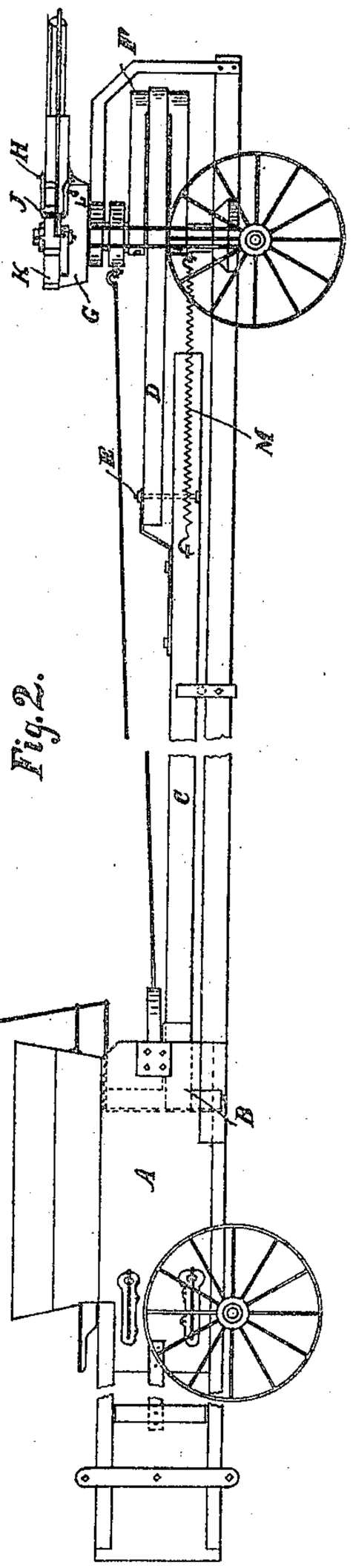


Fig. 2.

WITNESSES:

Fred. Gaubatz.

Elfrieda Behrens

INVENTOR

Alexander Lorenz,

BY Emil Behrens

his Attorney

No. 813,013. PATENTED FEB. 20, 1906.

A. LORENZ.

HAY PRESS.

APPLICATION FILED DEC. 14, 1904.

2 SHEETS—SHEET 2.

Fig. 4.

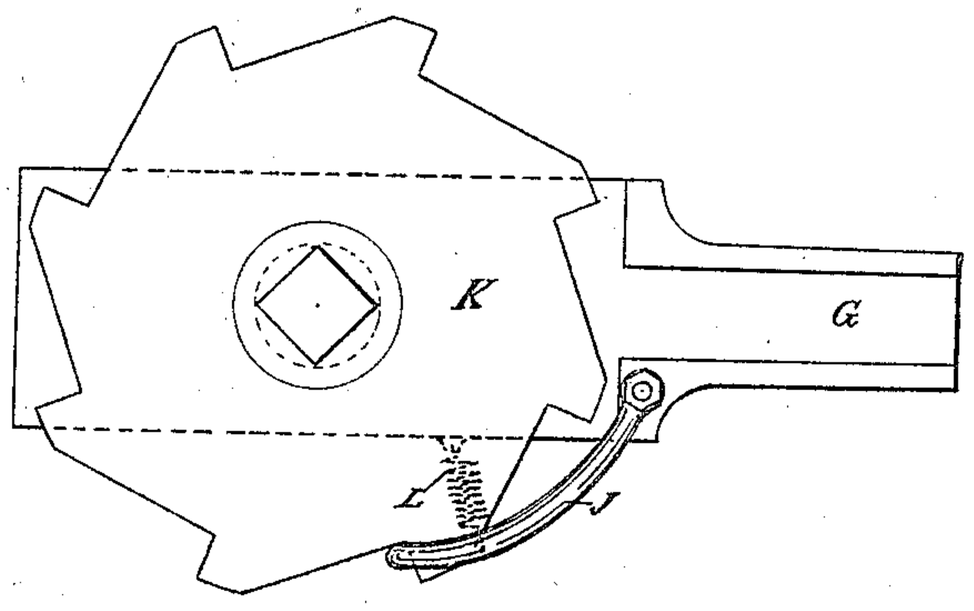
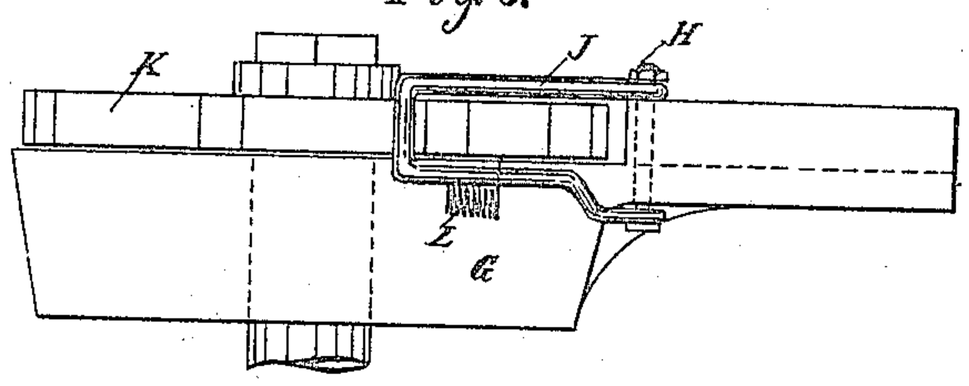


Fig. 5.



WITNESSES:

Fred. Gaubatz.

Elfrieda Behrens

INVENTOR

Alexander Lorenz,

BY Emil Behrens

his Attorney

UNITED STATES PATENT OFFICE.

ALEXANDER LORENZ, OF SAN ANTONIO, TEXAS, ASSIGNOR OF ONE-HALF TO WILLIAM J. ILLG, OF SAN ANTONIO, TEXAS.

HAY-PRESS.

No. 813,013. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed December 14, 1904. Serial No. 236,881.

To all whom it may concern:

Be it known that I, ALEXANDER LORENZ, a citizen of the United States of America, and a resident of San Antonio, in the county of Bexar and State of Texas, have invented certain new and useful Improvements in Hay-Presses, of which the following is a specification.

This invention relates to baling-presses, and particularly to that form of baling-presses operating on a horizontal plane and wherein a plunger is continuously reciprocated while the material to be pressed is being fed into the press-chamber.

The object of the invention is the construction of a press of this class in a manner such that the continuous operation of the reciprocating plunger may be insured and greater efficiency for the press effected.

To this end the invention consists in the construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, which form a part of this specification, Figure 1 is a top view of the entire hay-press. Fig. 2 is a side view thereof, and Fig. 3 a front view, while Fig. 4 is a top view, on an enlarged scale, of the ratchet-wheel and looped pawl, showing the coöperation thereof; and Fig. 5 is a side view of the parts seen in Fig. 4.

The case of the baling-press is indicated by A, the press-head, or the head of the plunger, is indicated by B, and the pole thereof by C.

D represents the pitman, and F the crank, of the vertical crank-shaft, to which the pitman is journaled, said pitman being pivoted to the pole by means of the bolt E. The crank-shaft is journaled at its upper ends in the power-frame, which, as shown, is supported upon a pair of wheels in the well-known manner. Upon the crank-shaft above the power-frame is idly mounted the socket G of the power pole or sweep, and above this socket, or in reality in a recess therein, is located the ratchet-wheel K, which is firmly fixed to the upper end of the crank-shaft. For engaging the sweep with the crank-shaft to rotate it a looped pawl J is provided, which is pivoted, as at H, to the sweep-socket G. To hold this pawl in engagement with the ratchet-wheel, a suitable spring, as L, is provided. The initial position of the plunger is that shown in Figs. 1 and 2, wherein it is represented as ready to begin a compressing stroke. To return the plunger to this initial position instantaneously and automatically after each stroke of compression, a spring, as M, is connected to the power-frame and to the pole C of the plunger.

In the operation of the parts described the sweep is moved counter-clockwise, the pawl J being held in engagement with one of the teeth of the ratchet-wheel K and until the crank passes dead-center in the stroke of compression—that is, until the plunger has reached its limit in the act of compressing the material in the baling-case. Then as soon as dead-center is passed the spring M acts to return the plunger to its initial position, thereby swinging the crank about through one hundred and eighty degrees, which movement the pawl J permits by sliding over the teeth of the ratchet-wheel K. In this return movement of the plunger the progression of the sweep is not interfered with, and immediately upon the completion of said return movement the pawl J again engages a tooth of the ratchet-wheel and the plunger begins another stroke of compression.

Changes in the formation and association of the parts described may be made without departing from the invention.

I claim—

In a horizontal baling-press, the combination, with the case and base-piece extending forwardly therefrom, of the power-frame mounted on the forward end of the base-piece, a crank-shaft journaled at its lower end in the base-piece and at its upper end in the power-frame and projecting above it, the plunger-pole mounted in guides on the base-piece, a retractile spring connected thereto and to the power-frame, a pitman pivoted to the upper side of the said pole and to the crank of the crank-shaft, a collar on the crank-shaft above the crank, a stay connected to said collar and to the press-case, a sweep-socket mounted idly on the upper end of the crank-shaft and having an arm extend-

ing therefrom for the attachment of a stay leading to the end of the sweep, a ratchet located in a recess of the sweep-socket and fixed to the crank-shaft, a looped pawl hinged to the sweep-socket, and a spring for holding the pawl in engagement with the ratchet, for the purpose set forth.

Signed at San Antonio, Texas, this 30th day of November, 1904.

ALEXANDER LORENZ.

Witnesses:
EMIL PHILLIPPE,
JOHN W. ILLG.