No. 782,881. PATENTED FEB. 21, 1905.

H. SMITH.

PNEUMATIC TRIPPING DEVICE FOR CLOTH PILERS.

APPLICATION FILED SEPT. 8, 1902.

4 SHEETS—SHEET 1.

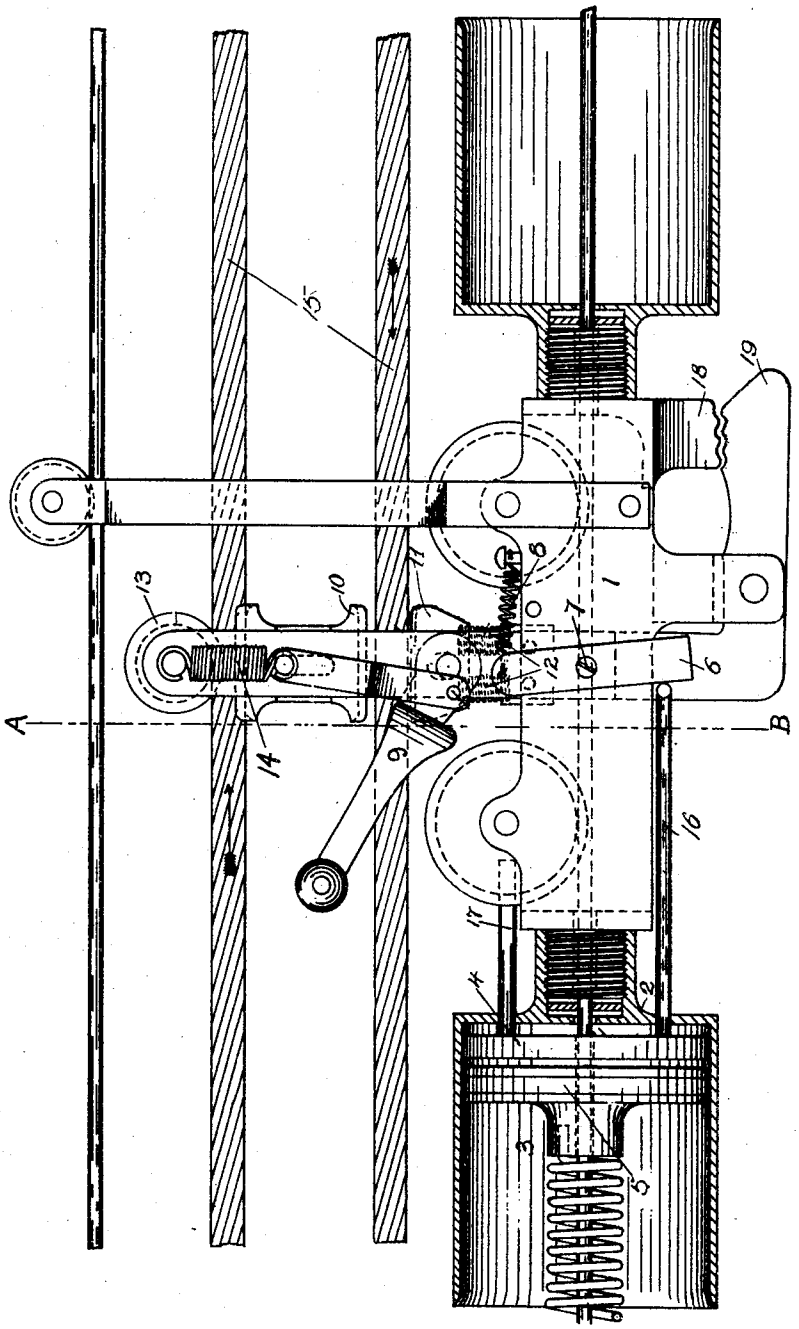

Fig. 1.

Witnesses:
S. Gordon Hopkins
Jas G. Lewis

Henry Smith, Inventor.
Per
William Wesley Varney Attorney.

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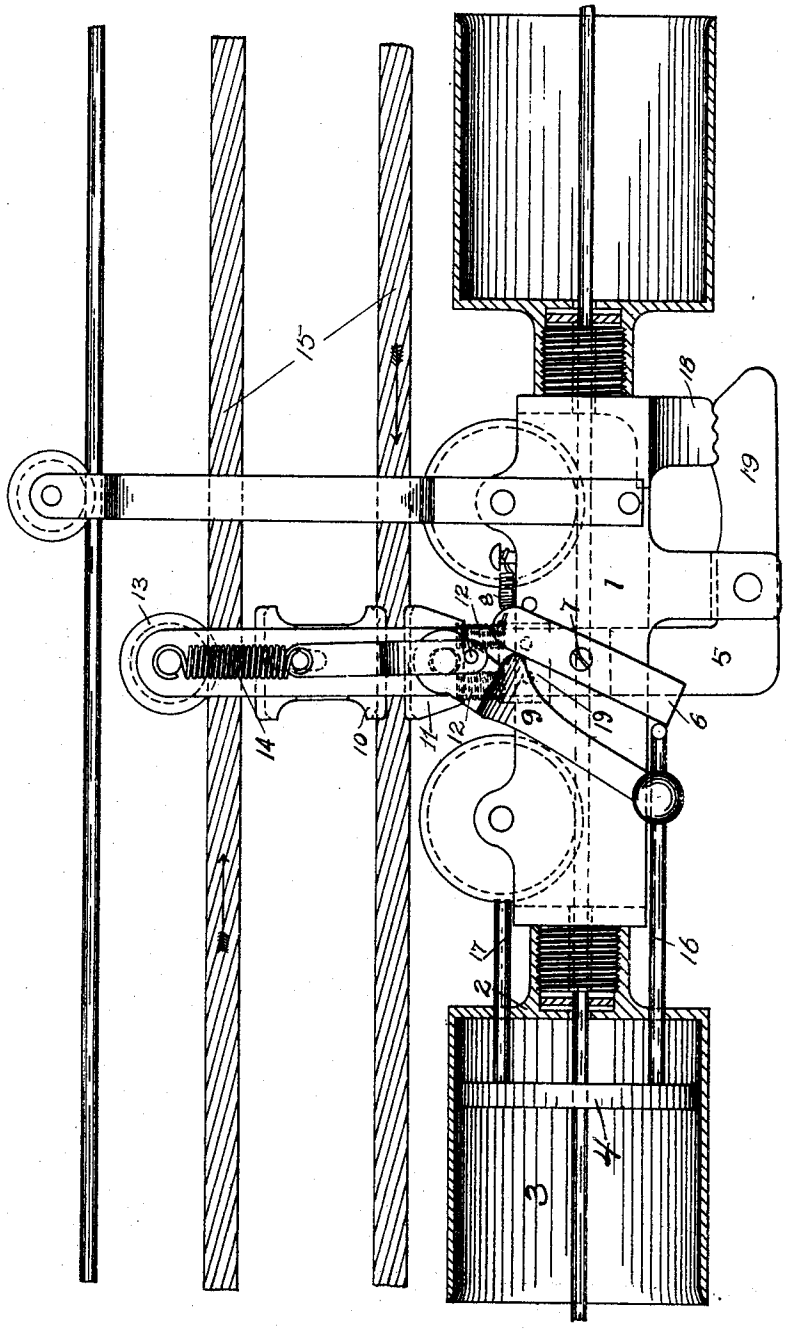

Fig. 2.

Witnesses:
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4 SHEETS—SHEET 3.

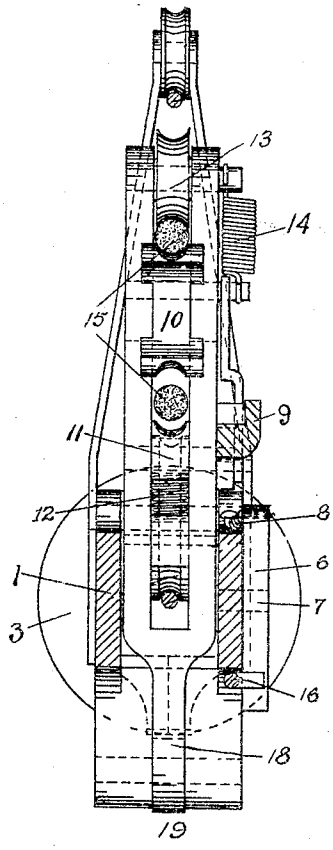

Fig. 3.

Witnesses:
S. Gordon Hopkins.
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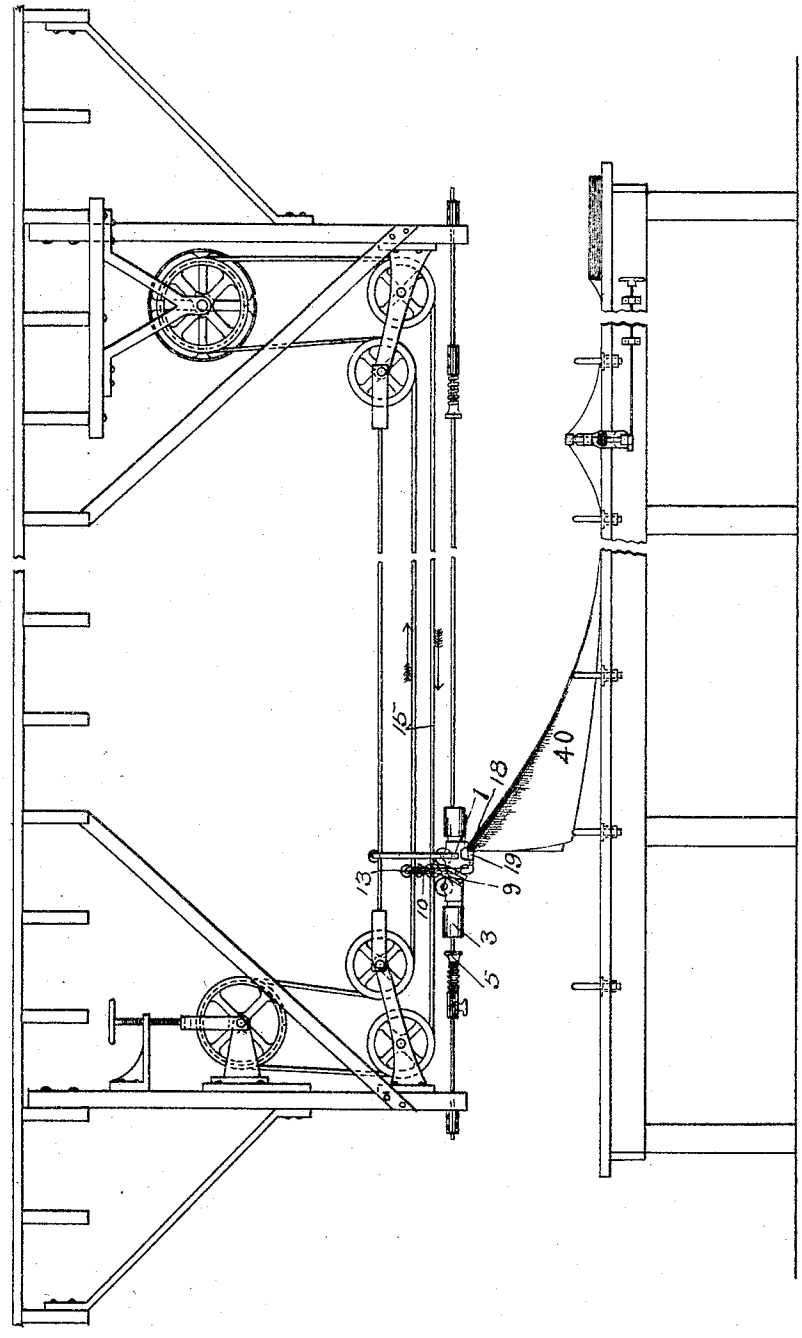
4 SHEETS—SHEET 4.

Fig. 4.



Witnesses:
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No. 782,881. Patented February 21, 1905.

UNITED STATES PATENT OFFICE.

HENRY SMITH, OF BALTIMORE, MARYLAND, ASSIGNOR TO EDWARD ALEXANDER GRIFFITH, OF BALTIMORE, MARYLAND.

PNEUMATIC TRIPPING DEVICE FOR CLOTH-PILERS.

SPECIFICATION forming part of Letters Patent No. 782,881, dated February 21, 1905.

Application filed September 8, 1902. Serial No. 122,593.

To all whom it may concern:

Be it known that I, HENRY SMITH, a citizen of the United States, residing 1715 East Lanvale street, Baltimore, Maryland, have invented a new and useful Pneumatic Tripping Device, of which the following is a specification.

My invention relates to improvements in pneumatic tripping devices; and the object of my improvement is to provide a suitable tripping device for a cloth-piler or other similarly-operated machines. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cloth-piler, with my improved tripping device attached thereto shown in section and its movable parts and the parts of the cloth-piler moved thereby in their relative positions at the instant of being tripped. Fig. 2 is a view similar to that shown in Fig. 1, but showing the tripping device and mechanism operated thereby in a position ready to be tripped. Fig. 3 is a cross-sectional view taken on the line A B of Fig. 1, and Fig. 4 is a view taken in elevation of my improvement as applied to a cloth-piling apparatus.

Similar numerals refer to similar parts throughout the several views.

1 is a cloth-piler to which is attached pneumatic tripping device 2. 3 is a cylinder in which operates pistons 4 and 5, piston 4 remaining constantly within cylinder 3 and carried back and forth therein with the cloth-piler to which said cylinder is attached and piston 5 operating in said cylinder from without, being stationary at some point in the line of travel of said cylinder as carried by the cloth-piler to which it is attached. On cloth-piler 1 is releasing-lever 6, fulcrumed at 7 and having its upper end secured to spring 8, said releasing-lever operating gripping-lever 9.

10 is a gripping-block operated by gripping-lever 9.

11 is a gripping-block supported by springs 12.

13 is a friction-wheel above gripping-block 10. 14 is a spring between said friction-wheel 13 and gripping-block 10.

15 is an endless operating-cable.

16 is a releasing-rod attached to and operated by a piston 4, and 17 is a guide-rod for piston 4.

18 and 19 are the jaws of the cloth-piler, between which the cloth is held.

The operation of my invention is as follows: The end of the cloth to be piled being placed between the jaws 18 and 19, gripping-lever 9 is pulled downward, carrying therewith gripping-block 10 and forcing the same against the forward moving side of endless cable 15 and gripping the said cable between gripping-blocks 10 and 11. In this position the machine and cloth attached thereto is carried forward until cylinder 3 on the forward end of the machine comes in contact with piston 5, which by air compression or direct contact with piston 4 forces the same, with releasing-rod 16, rearward, which operation, the said rod 16 being in contact with releasing-lever 6, forces the lower end of said lever 6 rearward and the upper end of the same forward against gripping-lever 9, throwing said gripping-lever and gripping-block 10, connected therewith, upward and releasing endless cable 15 from gripping-blocks 10 and 11. Spring 14 aids in this operation, and gripping-block 10 being thus released from the forward moving side of endless cable 15 is drawn by the said spring 14 upward against the return side of the said endless cable and grips the same sufficiently tight against friction-wheel 13 to automatically return the machine to the starting-point, spring 8, attached to the upper end of releasing-rod 6, operating to force releasing-rod 16 and piston 4 back into operating position immediately upon piston 4 being relieved of the pressure against piston 5 by the return movement of the cloth-piler.

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

1. A tripping device consisting of a piston carried and operated in a cylinder and operating a tripping mechanism, and a piston operating in said cylinder from without said cylinder, thus forming a pneumatic cushion be-

tween said two pistons when forced toward each other within said cylinder.

2. A tripping device consisting of a cylinder, a piston operating in said cylinder from without and means for operating a tripping mechanism by said piston.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY SMITH.

Witnesses:
EDWARD A. GRIFFITH,
S. GORDON HOPKINS.