

No. 681,548.

Patented Aug. 27, 1901.

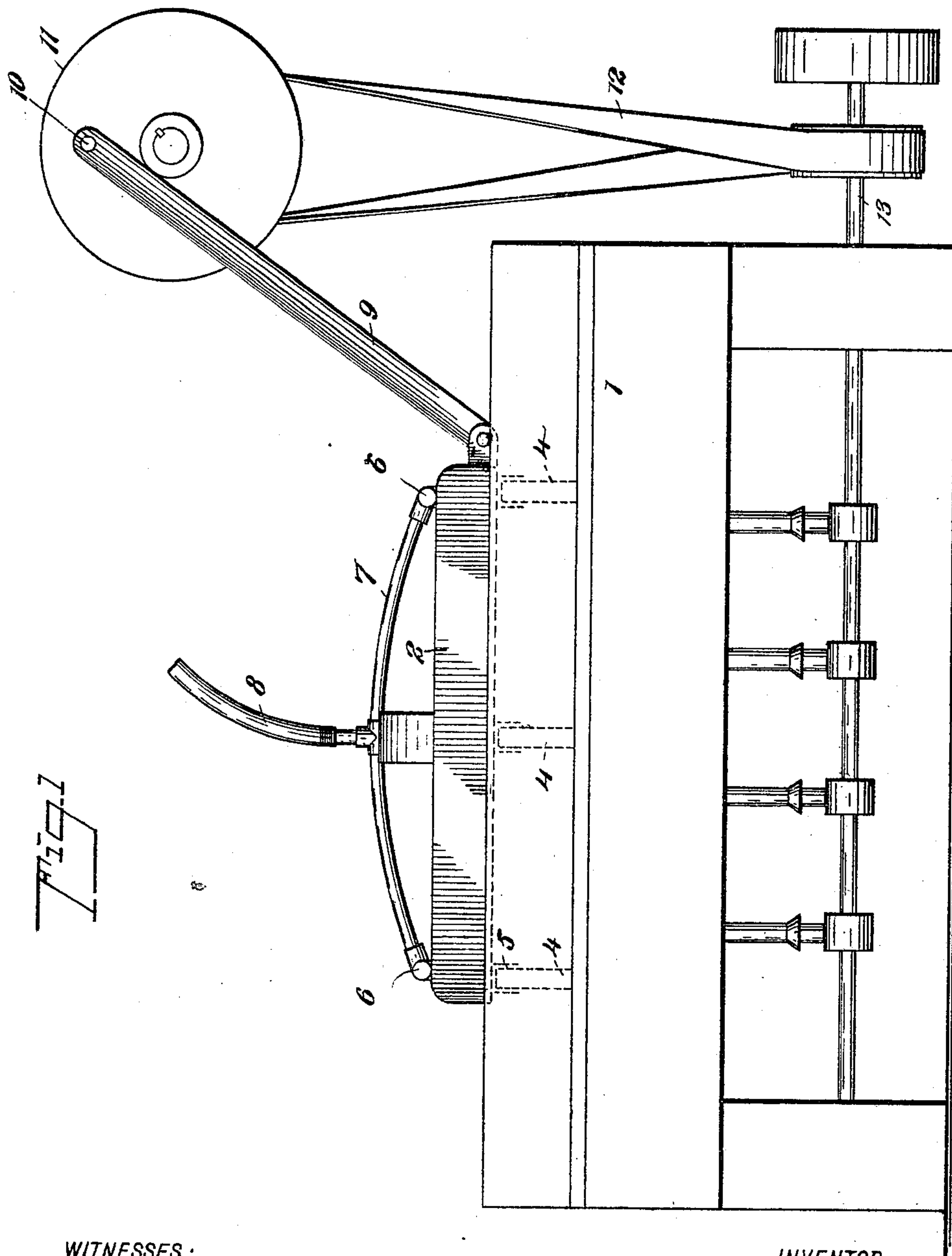
R. M. HAWK.

SCREEN CLEANER AND STUFF REGULATOR.

(Application filed Mar. 21, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig 2

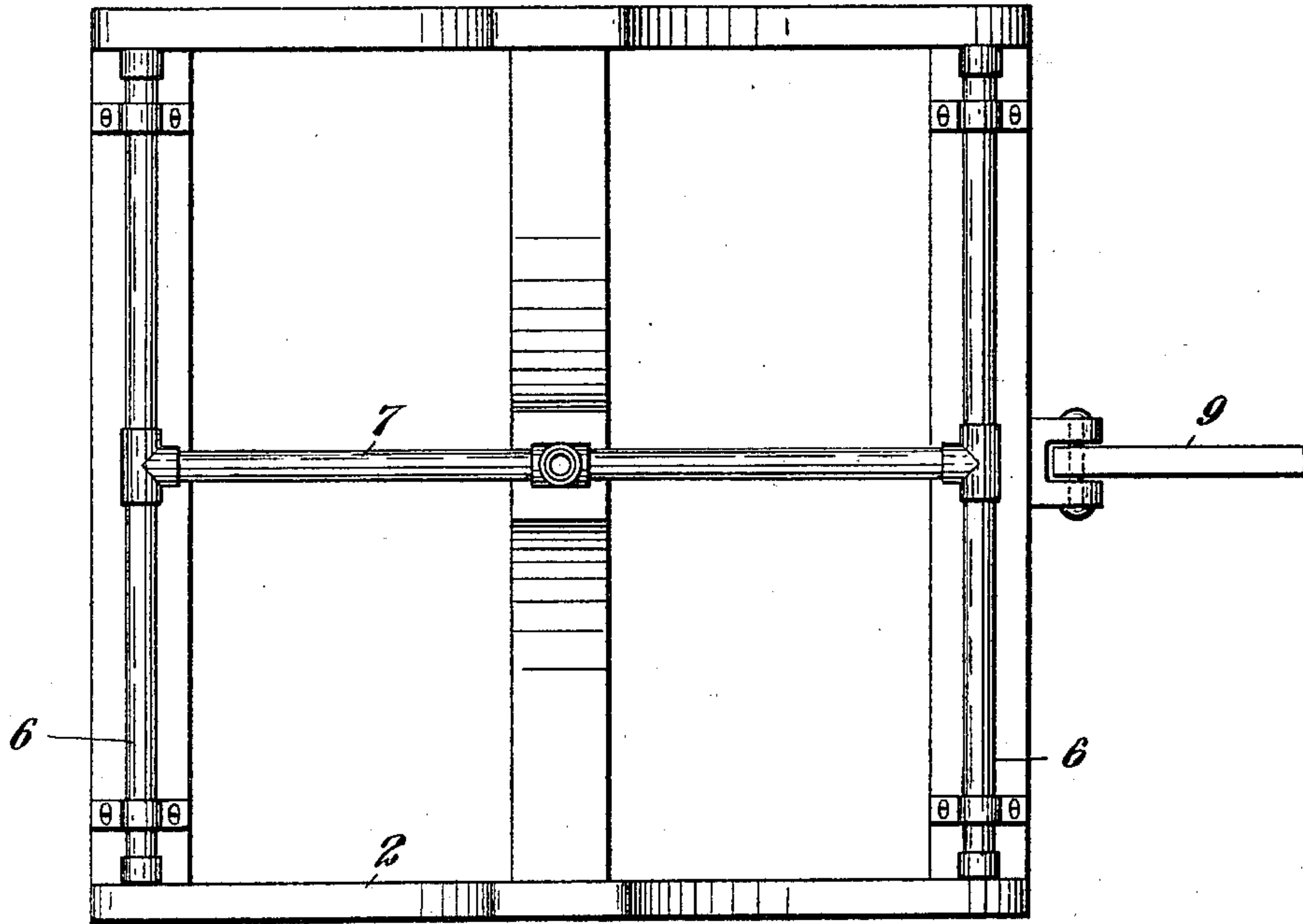


Fig 3

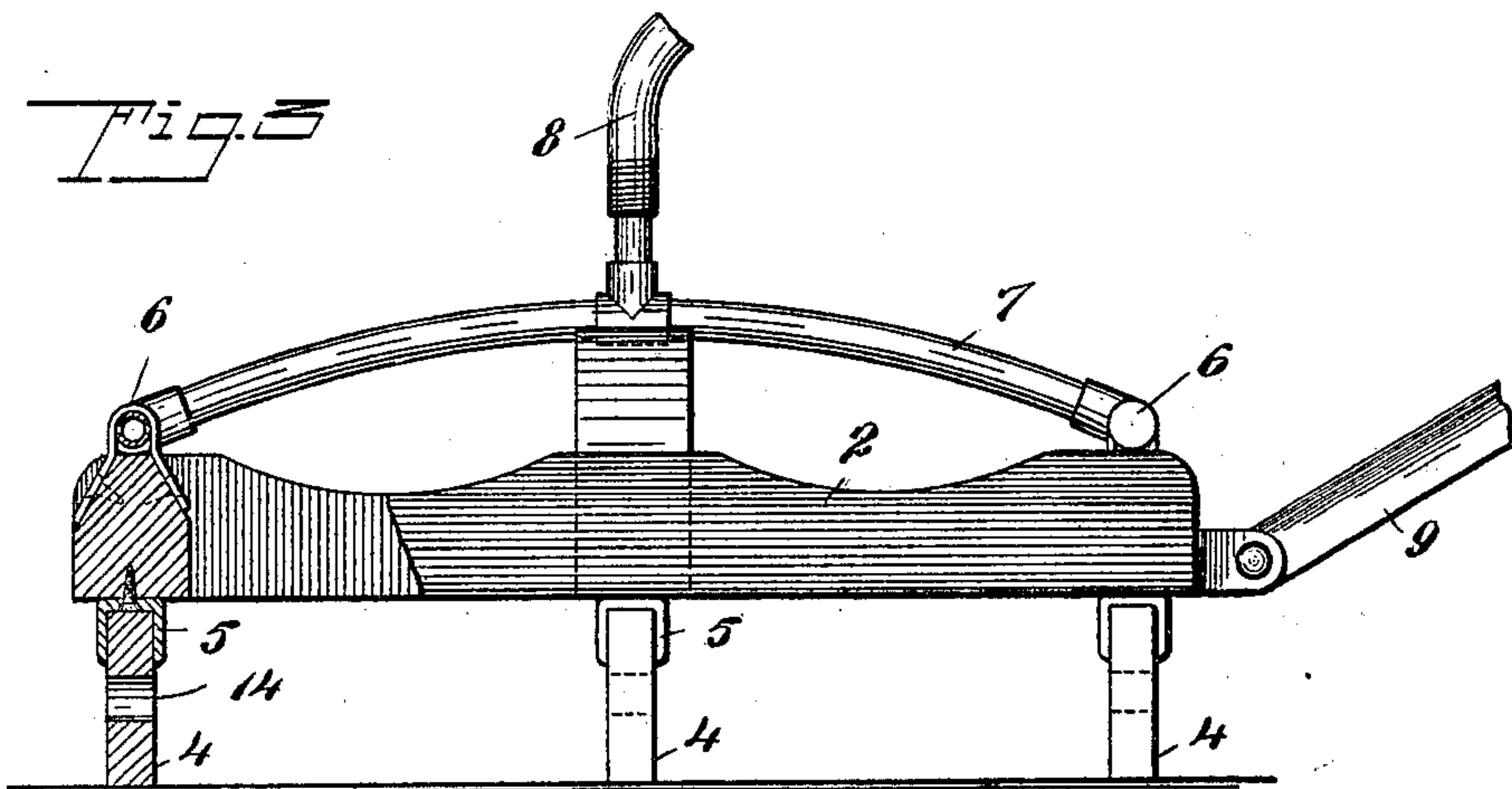
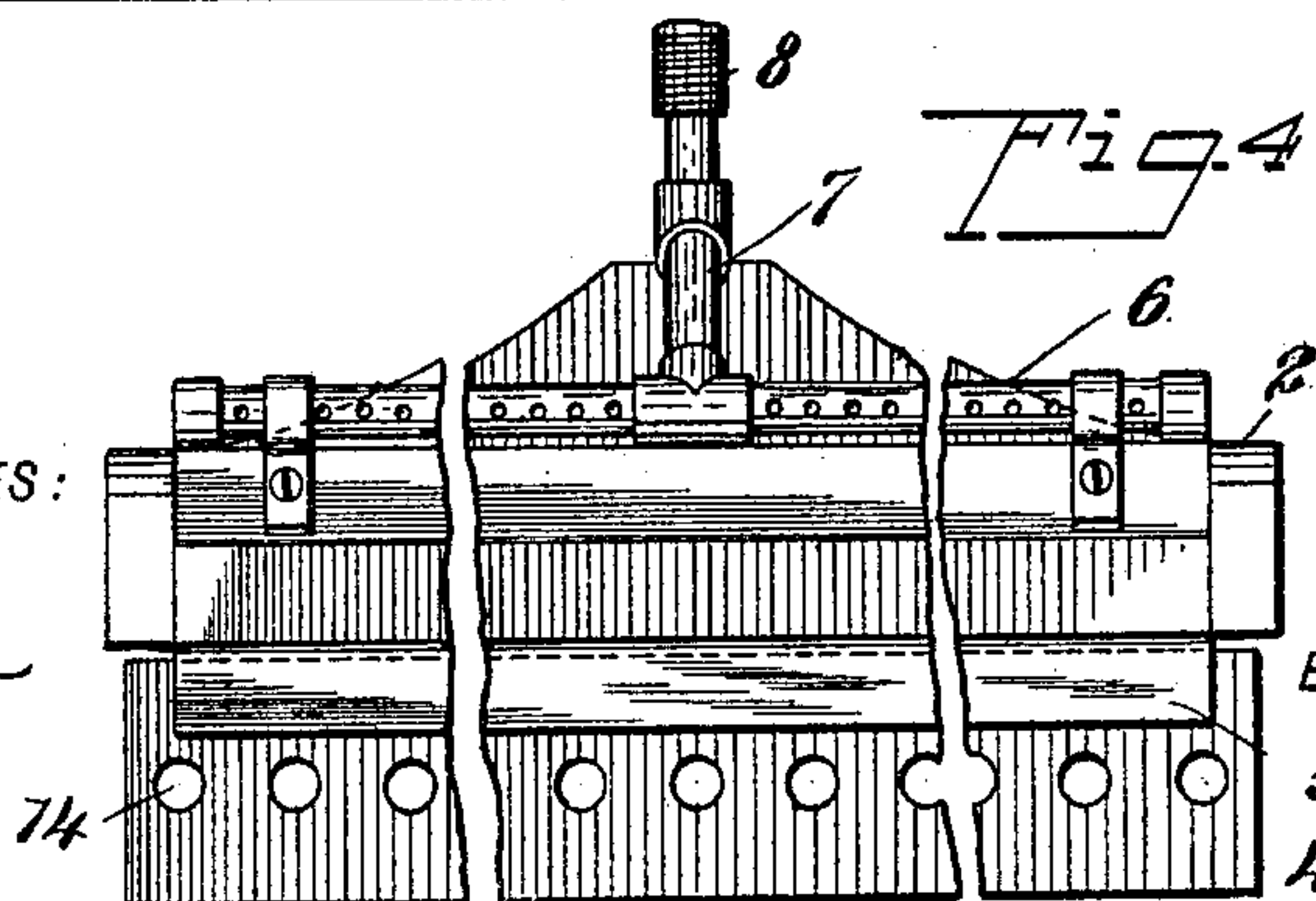


Fig 4



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ROBERT MONROE HAWK, OF WARREN PAPERMILLS, NEW JERSEY.

SCREEN-CLEANER AND STUFF-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 681,548, dated August 27, 1901.

Application filed March 21, 1901. Serial No. 52,161. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MONROE HAWK, a citizen of the United States, and a resident of Warren Papermills, in the county of Warren and State of New Jersey, have invented a new and Improved Screen-Cleaner and Pulp-Regulator, of which the following is a full, clear, and exact description.

This invention relates particularly to improvements in paper-making machines.

In paper-making the pulp is first run through a screen to free it from dirt, and when in the screen the pulp settles on the screen-plates and becomes irregular, which causes the finished sheet of paper to be uneven or not of uniform thickness.

The object of my invention is to obviate the above-mentioned difficulty, which I do by providing in the screen-box a device with means to move it back and forth on the screen-plates, so as to clean the screen and cause the water and pulp to feed through the screen regular and uniform in thickness.

I will describe a screen-cleaner and pulp-regulator embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation showing a screen-box and a device embodying my invention as applied thereto. Fig. 2 is a plan view of the cleaner and regulator. Fig. 3 is a side view of the same, partly in section; and Fig. 4 is a broken end view of the same.

Referring to the drawings, 1 designates the screen-box of the usual construction, and in which the usual screen is arranged. The cleaner and regulator comprises a frame 2 of wood or other suitable material. Removably connected to the end and center cross-bars of the cleaner-frame are wooden scrapers 4, which are each provided with a series of openings through which material may pass. I have here shown the upper edges of the scrapers as seated in channel-irons 5, connected to the cross-bars of the frame, so that

by lifting the frame the said scrapers may be readily removed when necessary. Extended along the upper sides and secured to the end cross-bars are water-distributing pipes 6. Each of these pipes is provided at opposite sides with discharge outlets or perforations, and the two pipes 6 are connected to a pipe 7, with which a flexible tube 8 communicates, the said flexible tube leading from any desired source of supply. The device is designed to be moved back and forth over the screen. For this purpose I have here shown a pitman 9, connected at one end to the frame and at the other end with a wrist-pin 10 on a crank-wheel 11, driven through the medium of a band 12 from a shaft 13.

In operation when the device is moved back and forth the scrapers will agitate the pulp and water, the water being supplied from the pipes 6, and the screen will be kept at all times clean. The water and pulp will pass through the openings 14 in the scrapers and then the material passes over the machine in the usual manner, but in uniform thickness, thus resulting in the making of better paper and in an economy in the use of steam as compared with the ordinary practice.

While I have shown three scrapers 4, in some instances I may use but two—that is, the device will work better in some grades of pulp with the center scraper omitted.

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

1. In a paper-machine, the combination with a screen-box, of a frame, scrapers detachably connected to the frame but movable rigidly therewith, the said scrapers having openings above their lower edges, and means for moving the frame in the box, substantially as specified.

2. The combination with the screen-box of a paper-making machine, of a frame, scrapers carried by said frame, each of said scrapers being provided with openings, water-supply pipes carried by the frame, and means for imparting to-and-fro motion to the frame, substantially as specified.

3. The combination with the screen-box of

a paper-making machine, of a frame, channel-irons connected to said frame, scrapers removably engaging in said channel-irons, said scrapers being provided with openings,
5 water-supply pipes carried by the frame, and means for imparting back-and-forth motion to the frame, substantially as specified.

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

ROBERT MONROE HAWK.

Witnesses:

AUSTIN FRITTS,
JOHN R. SEIGLE.