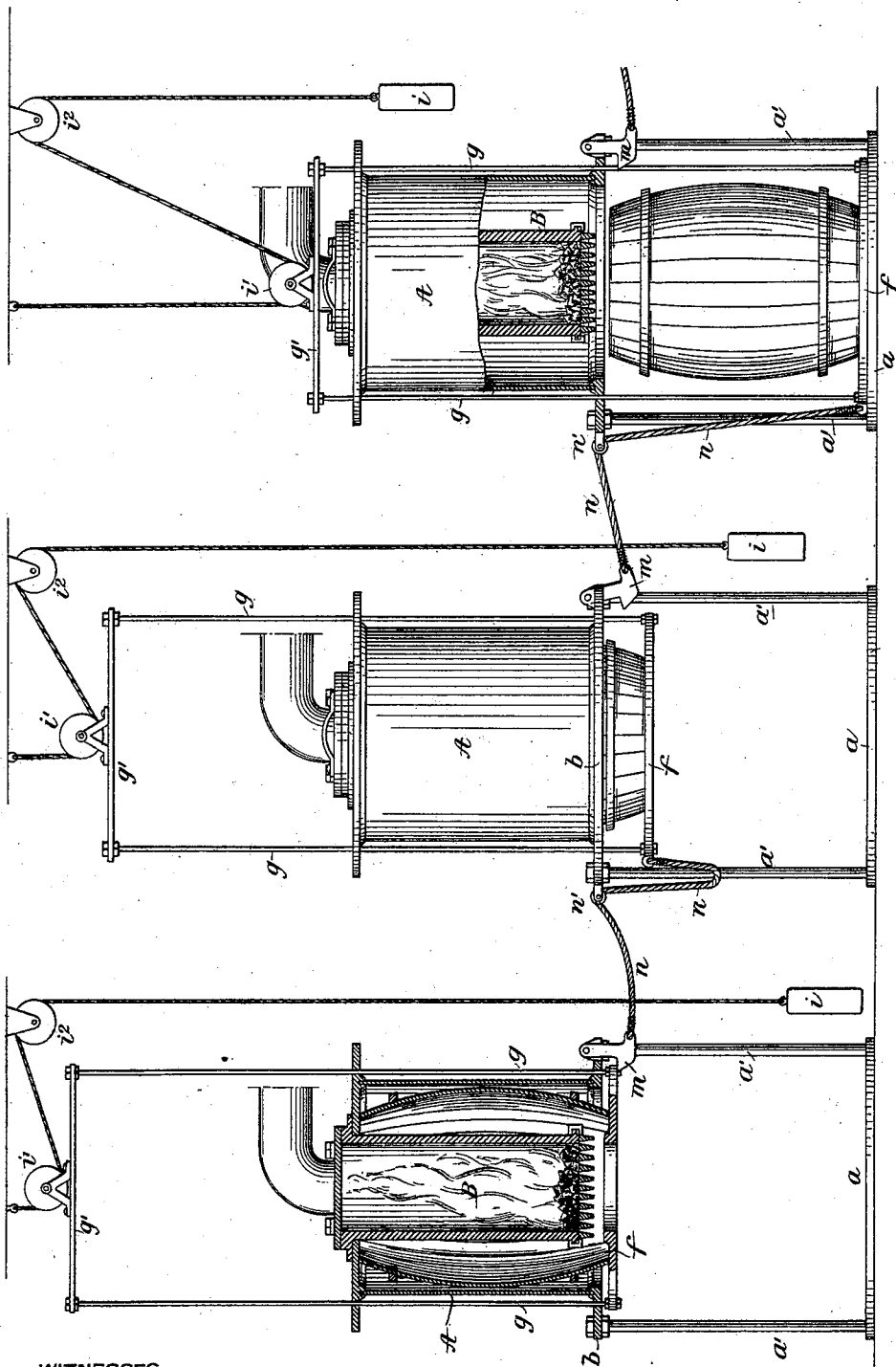


(No Model.)

J. B. & W. H. STANHOPE.
BARREL HEATER.

No. 523,552.

Patented July 24, 1894.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. STANHOPE AND WILLIAM H. STANHOPE, OF PHILADELPHIA,
PENNSYLVANIA.

BARREL-HEATER.

SPECIFICATION forming part of Letters Patent No. 523,552, dated July 24, 1894.

Application filed May 8, 1894. Serial No. 610,490. (No model.)

To all whom it may concern:

Be it known that we, JOHN B. STANHOPE and WILLIAM H. STANHOPE, both citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented certain Improvements in Barrel-Heaters, of which the following is a specification.

Our invention relates to that class of barrel heating machines shown in the patent of Chambers, No. 348,888, dated September 7, 1886, such barrel heaters comprising a casing having an internal fire pot and combined with a vertically movable frame on which the barrel is mounted and by means of which said barrel can be raised into the casing so as to surround the fire pot or can be lowered to a point below the casing so as to permit of the removal of the heated barrel and the placing of a fresh one, the object of our invention being to provide for the operation of the barrel carrier more expeditiously than usual, and to permit of the automatic movement of said carrier in one direction. This object we attain in the manner hereinafter set forth, reference being had to the accompanying drawing, which represents a set of three barrel heaters constructed in accordance with our invention.

A barrel heater of the character to which our invention relates consists of a base *a* having upright rods or posts *a'* supporting a ring *b* upon which is mounted a casing *A* with an internal fire pot *B*. Guided on the rods or posts *a'* is a platform *f* upon which is mounted the barrel to be heated, this platform being provided with vertical rods *g* and cross bar *g'* constituting a lifting frame which is acted upon by a suitable counterbalance weight *i*, the rope of said weight being fixed at one end and passing round a pulley *i'* on the lifting frame and round a fixed pulley *i''*. Usually the weight *i* is such as to counterbalance the weight of the lifting frame and barrel, so that the latter will remain in any position to which it may be adjusted, the usual method of operation being to place the barrel upon the platform while the latter is lowered and then to raise the barrel and platform by pulling down upon the counterbalance weight so that the barrel will rise into the casing *A* and sur-

round the fire pot *B*, the lowering of the barrel and platform being permitted by the raising of the counterbalance weight.

In order to provide for a more expeditious operation, we use a counterbalance weight *i* which does not quite equal the weight of the barrel and its lifting frame, so that the preponderance in weight of the latter causes it to remain in the lower position except when it is lifted by pulling down the counterbalance weight, or raising the platform. For the purpose of retaining the lifting platform and frame in the elevated position, we use a catch *m*, preferably a swinging gravity catch of the character shown in the drawing, this catch engaging with the platform when the barrel and its frame are elevated so as to retain them in the elevated position. When it is desired to lower the barrel, therefore, it is simply necessary to trip this catch, whereupon the barrel and its frame will descend owing to their preponderating weight, the operation of tripping the catch being more quickly performed than the usual raising of the counterbalance weight.

Where a series of barrel heating machines are arranged side by side, as in most large establishments, we provide for the automatic tripping in succession of the various barrel carriers by connecting the platform of one carrier with the retaining catch for the carrier of the next heater by means of a cord *n* passing over a pulley *n'* as shown in the drawing. When this construction is adopted it is only necessary to trip by hand the retaining catch of the first machine, for when the barrel carrying frame of said machine has descended to the full extent, the cord *n* will be tightened and the catch of the next machine will be tripped so as to permit of the descent of its barrel carrying frame, the latter tripping the catch of the third machine, and so on. After the catch of the first machine has been tripped the dried barrel can be removed, a fresh barrel put in its place and the frame raised so as to lift the barrel up into the casing *A*, the barrel carrying frame of the next machine having, by this time, descended to its full extent so as to permit of a repetition of the operations at that machine and so on

throughout the series, thus permitting a number of machines to be properly cared for by a less number of attendants than usual.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. The combination of a barrel heater, with a vertically movable barrel frame having a normal tendency to descend, and a catch for retaining the barrel frame in its elevated position, substantially as specified.

2. The combination of a series of barrel heaters, each provided with a barrel carrying frame having a normal tendency to descend, a catch for retaining said barrel frame in its

elevated position, and a connection between the catch of one machine and the barrel frame of an adjacent machine, whereby the descent of one frame will automatically trip the catch of the next frame, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN B. STANHOPE.
WILLIAM H. STANHOPE.

Witnesses:

EDWD. RAMSEY,
FRANK E. BECHTOLD.