

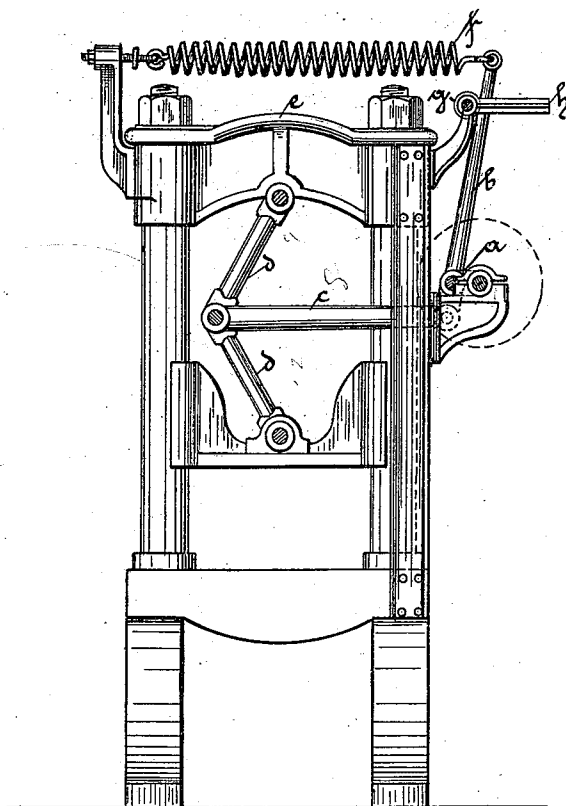
(No Model.)

W. SIMON.

MEANS FOR PRESSURE LIMITING IN PRESSES.

No. 512,844.

Patented Jan. 16, 1894.



Witnesses:

Alex. H. H. J. J.
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UNITED STATES PATENT OFFICE.

WILHELM SIMON, OF NUREMBERG, GERMANY.

MEANS FOR PRESSURE-LIMITING IN PRESSES.

SPECIFICATION forming part of Letters Patent No. 512,844, dated January 16, 1894.

Application filed September 20, 1893. Serial No. 486,029. (No model.)

To all whom it may concern:

Be it known that I, WILHELM SIMON, manufacturer, of Bleiweishof, No. 320, Nuremberg, in the Kingdom of Bavaria and Empire of Germany, have invented certain new and useful Improvements in Means for Pressure-Limiting in Presses, of which the following is a specification.

The object of my invention is to provide certain new and useful improvements in presses whereby the pressing force of the press can be readily limited.

The invention consists in the combination, with a press frame, of a crank shaft, a two-armed lever being connected by a suitable rod with the pressing device and the longer arm being connected with a spring attached to the press frame.

The invention also consists in the construction and combination of parts and details which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawing, a side view of a toggle press, provided with my improvements, is shown.

On the crank *a*, a lever *b* having arms of unequal length is mounted, the shorter arm of which is connected with a rod *c*, which in turn has its opposite end connected with the joint of the two toggle-levers *d*. The upper end of the lower arm of the lever *b* is connected with a spring *f* on the frame of the press. As the crank is turned to operate the toggle-levers, the longer arm of the lever *b* slides up and down along a guide-roller *g* and is guided by two arms *h*. As soon as the article in the press has received the desired pressure, and

if the crank has at that time not yet arrived at its extreme point, the follower stops moving downward and the short arm of the lever *b* no longer follows the crank, but the spring *f* begins to give, compelling the upper arm of the lever to move outward, thus permitting the crank-pin to finish its stroke without exerting a greater pressing force.

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

1. The combination with a press frame and follower, of a crank shaft, means for operating the follower from said crank shaft, a lever mounted on the crank and having arms of different lengths, a spring connected with the end of the longer arm, the shorter arm being connected with the means for operating the follower, substantially as set forth.

2. The combination with a press frame and operating levers, of a follower, a crank shaft, a lever mounted on the crank and having two arms of different lengths, a spring having one end attached to the longer arm of the lever and the other fastened to the press frame, a connecting rod, having one end connected with the shorter arm of the lever and the other end connected with the follower operating levers and guides for the longer arm of the lever, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILHELM SIMON.

Witnesses:

A. WIELE,
OSCAR BOCK.