

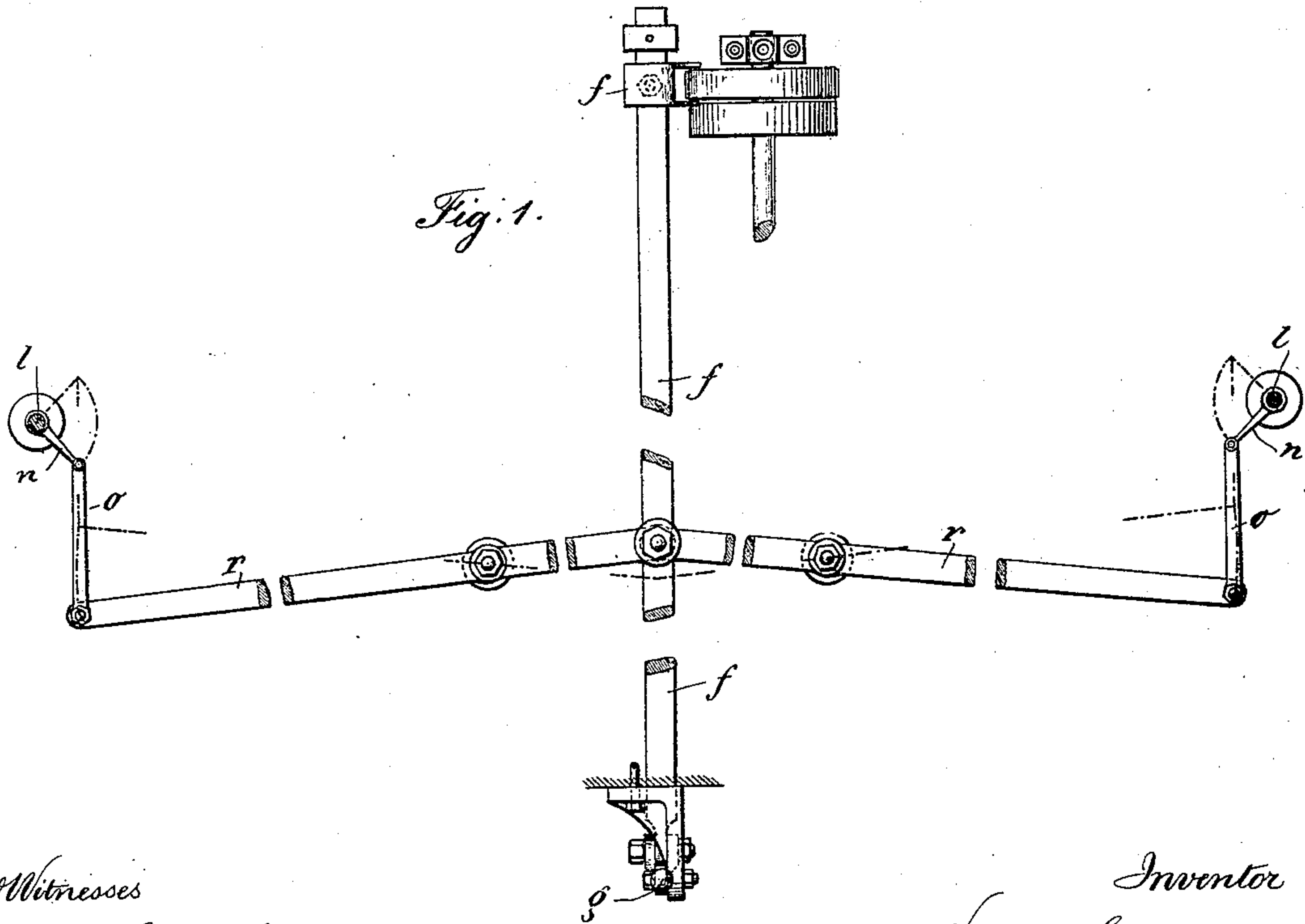
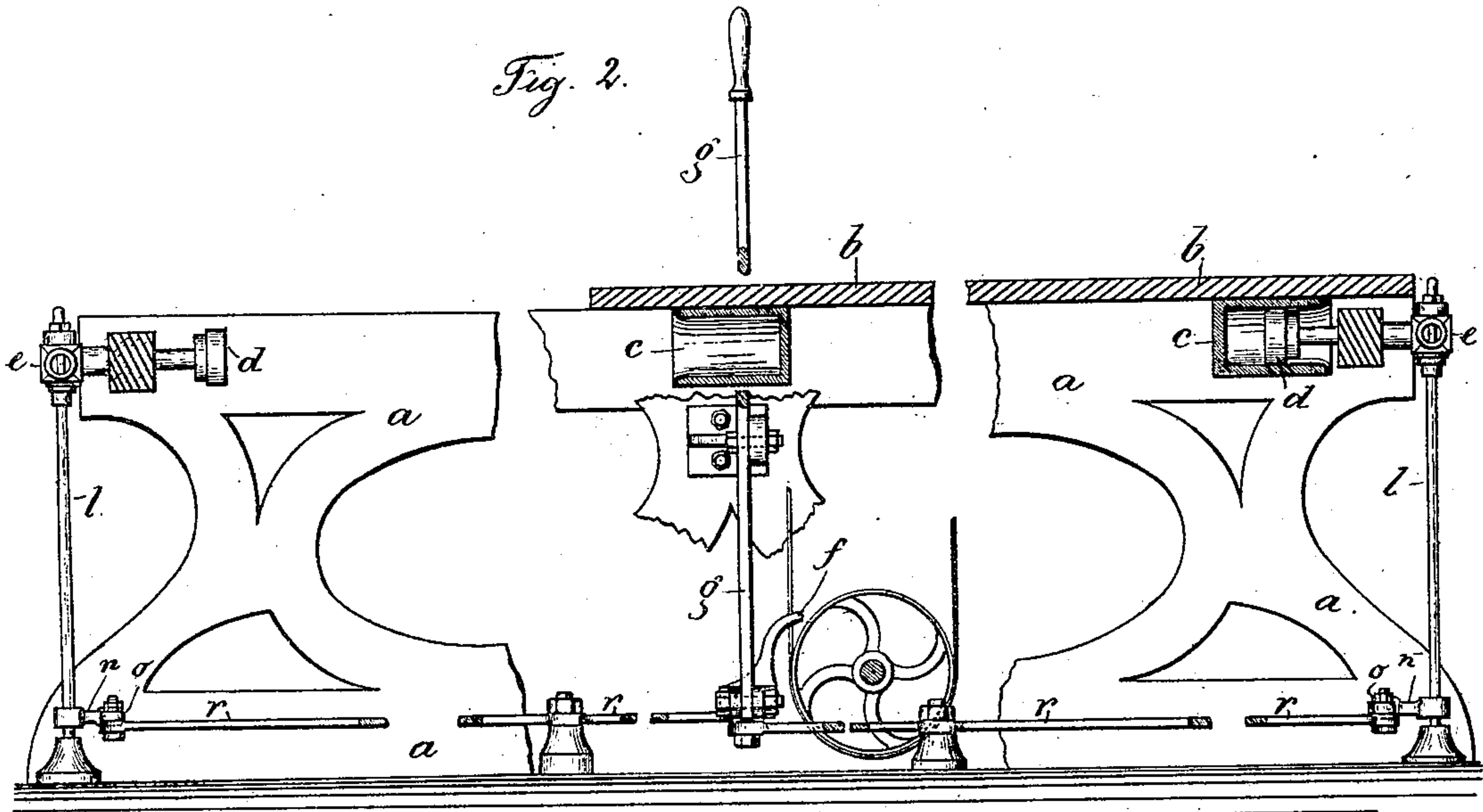
(No Model.)

W. SCOTT.

Cushioning Device for Printing Presses.

No. 238,720.

Patented March 8, 1881.



Witnesses

Chas. H. Smith
J. Hall

Inventor

Walter Scott
per Lemuel W. Perrell
att'y.

UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF PLAINFIELD, NEW JERSEY.

CUSHIONING DEVICE FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 238,720, dated March 8, 1881.

Application filed January 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, WALTER SCOTT, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Cushioning Devices for Printing-Presses, of which the following is a specification.

In printing-presses having a reciprocating bed there have been cylinders upon the bed passing upon pistons that are stationary upon the frame, and the confined air has acted as a cushion to stop the momentum of the bed and lessen the concussion or strain in changing the direction of motion of the bed. In presses of this kind cocks have been provided that regulate the escape of air, so as to confine more or less air, according to the speed of the press. These cocks are usually adjusted by hand; but in some instances a governor has been combined with them. In printing, the press is often stopped and the bed moved by hand very slowly in adjusting the parts. If this is done with the cocks partially or entirely closed, the accumulated atmospheric pressure prevents the press being moved at the end of the stroke, and the attendant has to go to the cocks and open them to complete the movement of the press by hand. This is a loss of time, and objectionable. Furthermore, if the press is started by power, it sometimes moves slowly, and the cushioning is too much and checks the movement of the bed.

The nature of my invention consists in combining with the cocks of the cushioning device a connection to the belt-shifting mechanism, so that when the belt is shifted to stop the press the cocks are opened, and the cushioning apparatus does not interfere with the movement of the press by hand, and in starting by power the cocks are closed gradually as the belt is shifted and the parts begin to move.

In the drawings, Figure 1 is a plan view, showing the manner of connecting the belt-shifter and the rods to the air-cocks; and Fig. 2 is a vertical section, showing the bed of the press and the cushioning devices.

The frame *a* of the press is of ordinary character, and the bed *b* is reciprocated upon its ways as usual.

The cylinders *c* upon the under side of the bed, the pistons *d*, supported by the frame *a*, and the air-cocks *e*, are of usual character, and their operation is well known.

The belt-shifter *f* is operated by a lever, *g*, or other convenient device, and between the belt-shifter *f* and the cocks *e* there are suitable connecting devices, so that when the belt-shifter is moved to stop the press the air-cocks are opened. A convenient device for this purpose is a rod, *l*, attached to each cock, with a crank-arm, *n*, upon it, and connected by a link, *o*, to a lever, *r*, the other end of which is connected with the belt-shifter *f*, so that as the belt-shifter is moved endwise the cocks will be opened as the press is stopped, and closed as the press is started again, thus rendering it unnecessary to manipulate the cocks by hand.

Each cock may be provided with an adjustable stop, so that on starting the press the cocks will be closed to a given point, either partially or entirely.

The peculiar shape and positions of the mechanism connecting the air-cocks to the belt-shifter will vary according to the construction of the press.

I claim as my invention—

The combination, with the cushioning-cylinders and pistons in a printing-press and their air-cocks, of connecting devices between said air-cocks and the belt-shifting mechanism, whereby the air-cocks are opened by the mechanism that stops the press and closed or partially closed in starting the press, substantially as set forth.

Signed by me this 30th day of December, A. D. 1880.

WALTER SCOTT.

Witnesses:

D. T. LYONS,
GEORGE R. W. KITTSO.