

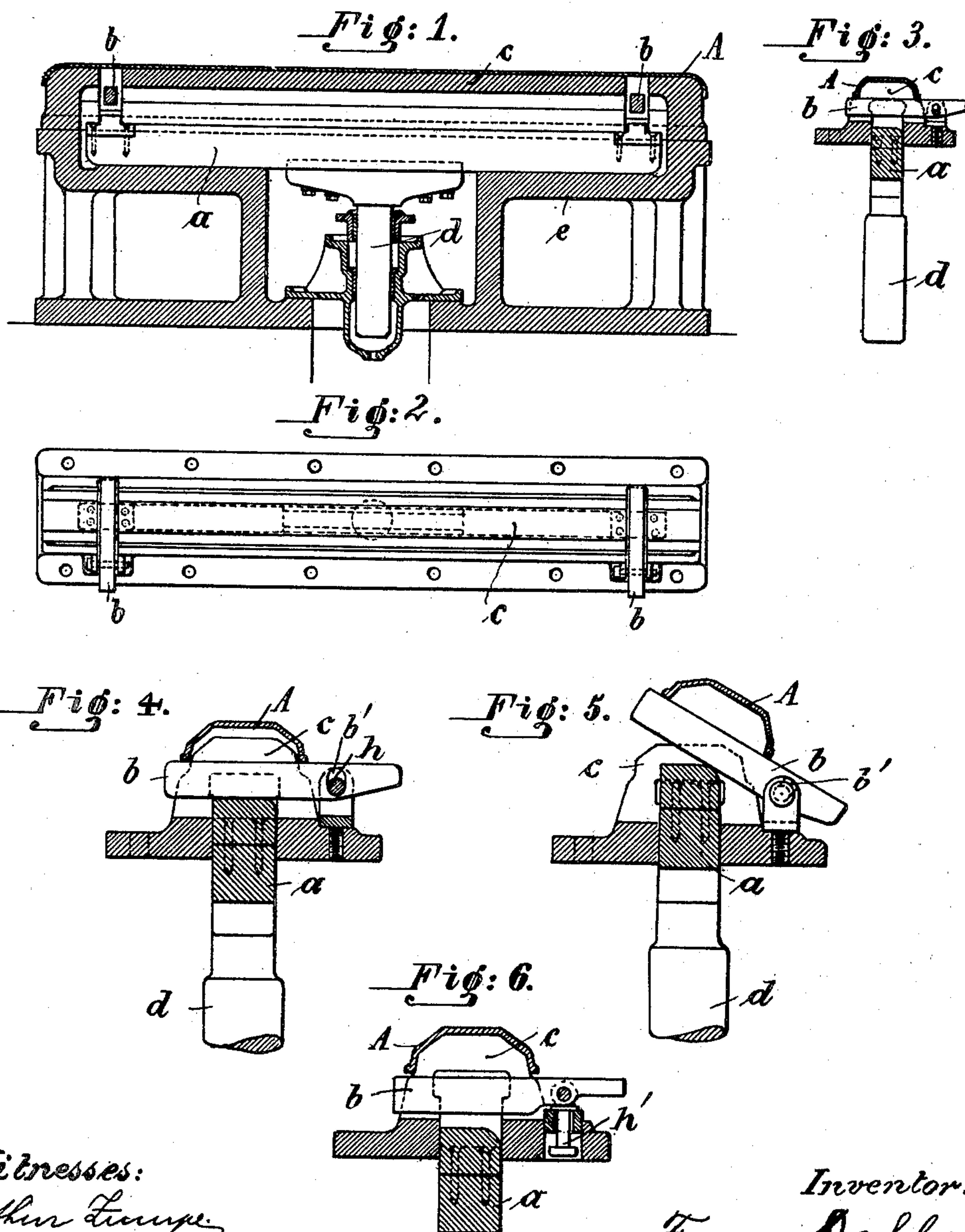
No. 696,010.

Patented Mar. 25, 1902.

F. DAHL.  
HYDRAULIC PRESS.

(Application filed Dec. 31, 1901.)

(No Model.)



Witnesses:  
Arthur L. Lemp  
Edward Ray

Inventor:  
Franz Dahl  
by his attorneys  
Roeder & Briesen

# UNITED STATES PATENT OFFICE.

FRANZ DAHL, OF BRUCKHAUSEN, GERMANY.

## HYDRAULIC PRESS.

SPECIFICATION forming part of Letters Patent No. 696,010, dated March 25, 1902.

Application filed December 31, 1901. Serial No. 87,884. (No model.)

*To all whom it may concern:*

Be it known that I, FRANZ DAHL, a citizen of Germany, and a resident of Bruckhausen, Rhineland, Germany, have invented certain  
5 new and useful Improvements in Hydraulic Presses, of which the following is a specification.

This invention relates to an improved hydraulic press or similar machine, and more  
10 particularly to improved means for lifting the work off the matrix in a simple manner.

In the accompanying drawings, Figure 1 is a longitudinal vertical section of the lower portion of a press embodying my improvement.  
15 Fig. 2 is a plan. Figs. 3, 4, and 5 are vertical cross-sections of the press, showing consecutive positions of the parts; and Fig. 6, a vertical cross-section of a modification.

20 The letter *c* represents the matrix of a hydraulic or other press by which the work-piece *A* is stamped. The matrix is slotted near each end for the accommodation of a pair of transverse levers *b*. These levers have  
25 a vertical and also a tilting motion. They are provided at their pivoted end with an elongated opening or slot *b'*, that receives the pivot *h*, such pivot being of a diameter less than the major diameter of the slot. The le-  
30 vers *b* rest on a longitudinal beam *a*, engaged

by a plunger *d*, that works within a chamber of the plate *e*.

In use the plunger *d* is raised to first raise and then tilt the levers *b*. The raising of the levers will cause them to first engage the  
35 work-piece *A*, Fig. 3, and to then lift it vertically above the matrix, Fig. 4. The tilting of the levers *d* will throw the raised work-piece off the matrix, Fig. 5.

In Fig. 6 the pivot *h'* of the lever *b* is ver-  
40 tically movable to permit the vertical movement of the lever, while the elongated slots *b'* are dispensed with.

What I claim is—

1. In a press, the combination of a matrix,  
45 with levers adapted to engage the work-piece, and with means for imparting successively a vertical and a tilting movement to the levers, substantially as specified.

2. In a press, the combination of a matrix,  
50 with levers engaging the work-piece and movable vertically at their pivoted end, a beam engaging the levers, and a plunger engaging the beam, substantially as specified.

Signed by me at Dusseldorf, Germany, this  
55 17th day of December, 1901.

FRANZ DAHL.

Witnesses:

WM. ESSENWEIN,  
PETER LIEBER.