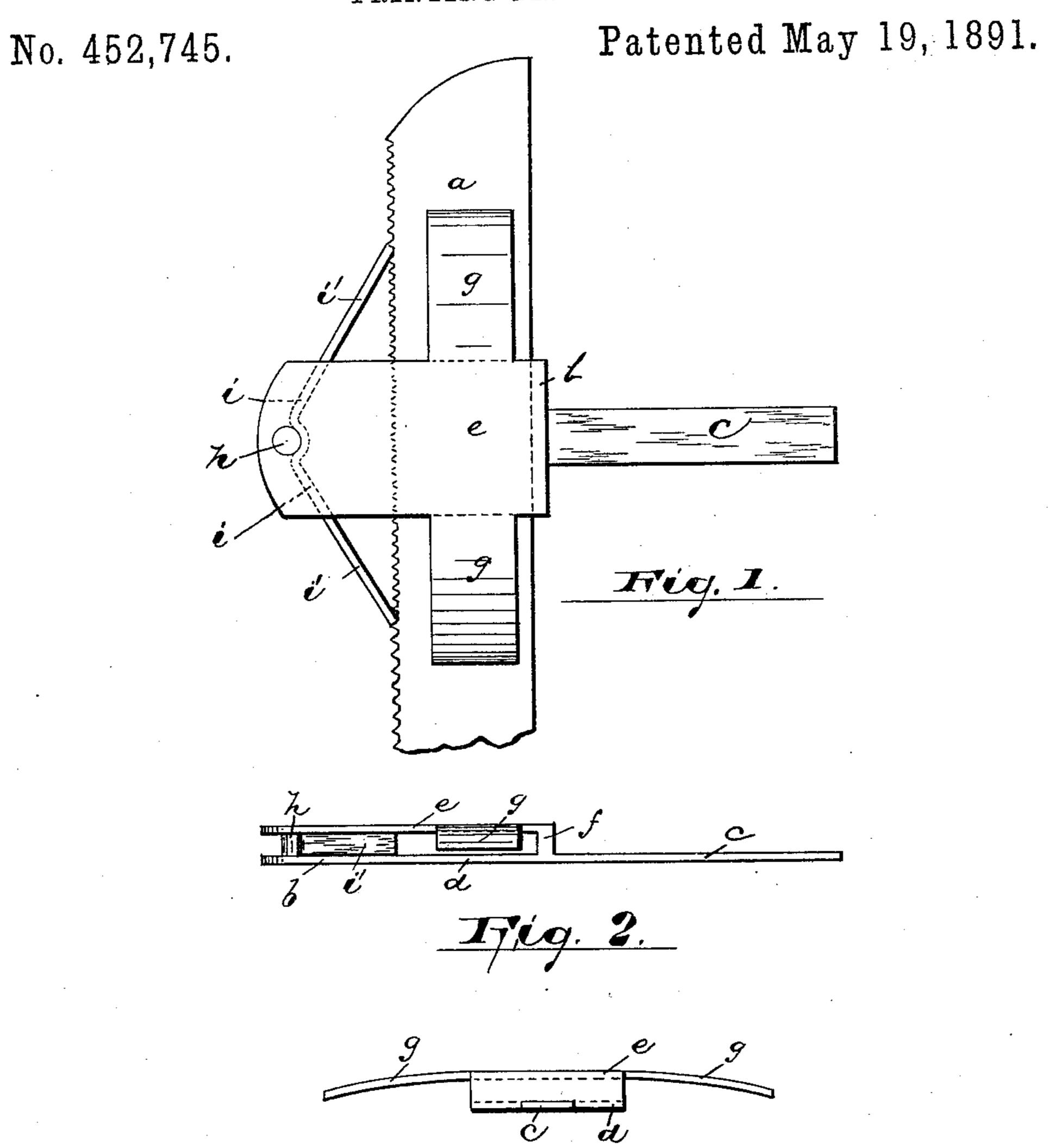
(No Model.)

## B. H. BOWMAN. PRINTING PRESS GRIP.



Oscar Ashichel Bion H. Bowman,

E. L. Sheman BY Draket G., ATTY'S.

## United States Patent Office.

BION H. BOWMAN, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO AXEL H. GAARDER, OF SAME PLACE.

## PRINTING-PRESS GRIP.

SPECIFICATION forming part of Letters Patent No. 452,745, dated May 19, 1891.

Application filed December 21, 1889. Serial No. 334,516. (No model.)

To all whom it may concern:

Be it known that I, BION H. BOWMAN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Printing-Press Grips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification:

The object of this invention is to provide an attachment for a printing-press by means of which the paper may be gripped as close to the edge thereof as possible, so that the whole surface of the paper or card may be exposed to the type and be printed upon, if desired.

The invention consists in the improved grip attachment and in the combination and arrangement of the several parts thereof, as hereinafter set forth, and finally pointed out in the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts wherever they occur, Figure 1 represents a top plan view of my improved 30 grip attachment adjusted upon one of the grip-bars of an ordinary printing-press. Fig. 2 represents an edge view of said attachment, and Fig. 3 is an end view thereof with spring removed.

In said drawings, a indicates a portion of one of the gripping-bars of an ordinary printing-press, one edge of which, in the present instance, is toothed, the better to hold the device in position, as will be understood upon reference to Fig. 1. Said device or attachment, which is shown in Fig. 1 in position, consists of a bottom plate d, provided with an arm or extension c of less dimensions than said plate d, a top plate e, provided with lat-

erally-projecting spring-arms g slightly 45 curved downward, as indicated in Figs. 1 and 3. Said plates d and e are secured to one another in the relation shown in Fig. 2 by means of a shouldered rivet h and a cross-bar or flange f, the latter being soldered or other- 50 wise secured to hold the parts in position, leaving an open space between said plates to admit the passage therethrough of the bar a, as indicated in Fig. 1. Between said plates is also adjusted a spring ii', approximately 55 half elliptic in form, as shown. Said spring is so adjusted that its extremities press against the outer edge of the bar a, and its center or apex against the rivet h, a curve being formed in the spring to provide a seat for said rivet, 60 as seen in Fig. 1. The purpose of the said springs g and i i' is to hold the gripping attachment firmly in position upon the bar a at whatever point thereon it may from time to time be adjusted, the normal tendency of the 65 springs being to press against said bar, as will be understood.

The operation and advantages of my improvement it is thought will be readily understood by a person skilled in the art to 7c which it appertains without further description or illustration.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A grip attachment for printing-presses combining therein the lower plate or portion cd, upper plate or portion e, laterally-projecting spring-arms g, and spring ii', said parts being arranged in relation to one another as described, for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of November, 1889.

BION H. BOWMAN.

Witnesses:
CHARLES H. PELL,
E. L. SHERMAN.