No. 625,317. Patented May 23, 1899.

E. S. BRADFORD.

FEEDING DEVICE FOR PRINTING PRESSES.

(Application filed Jan. 7, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

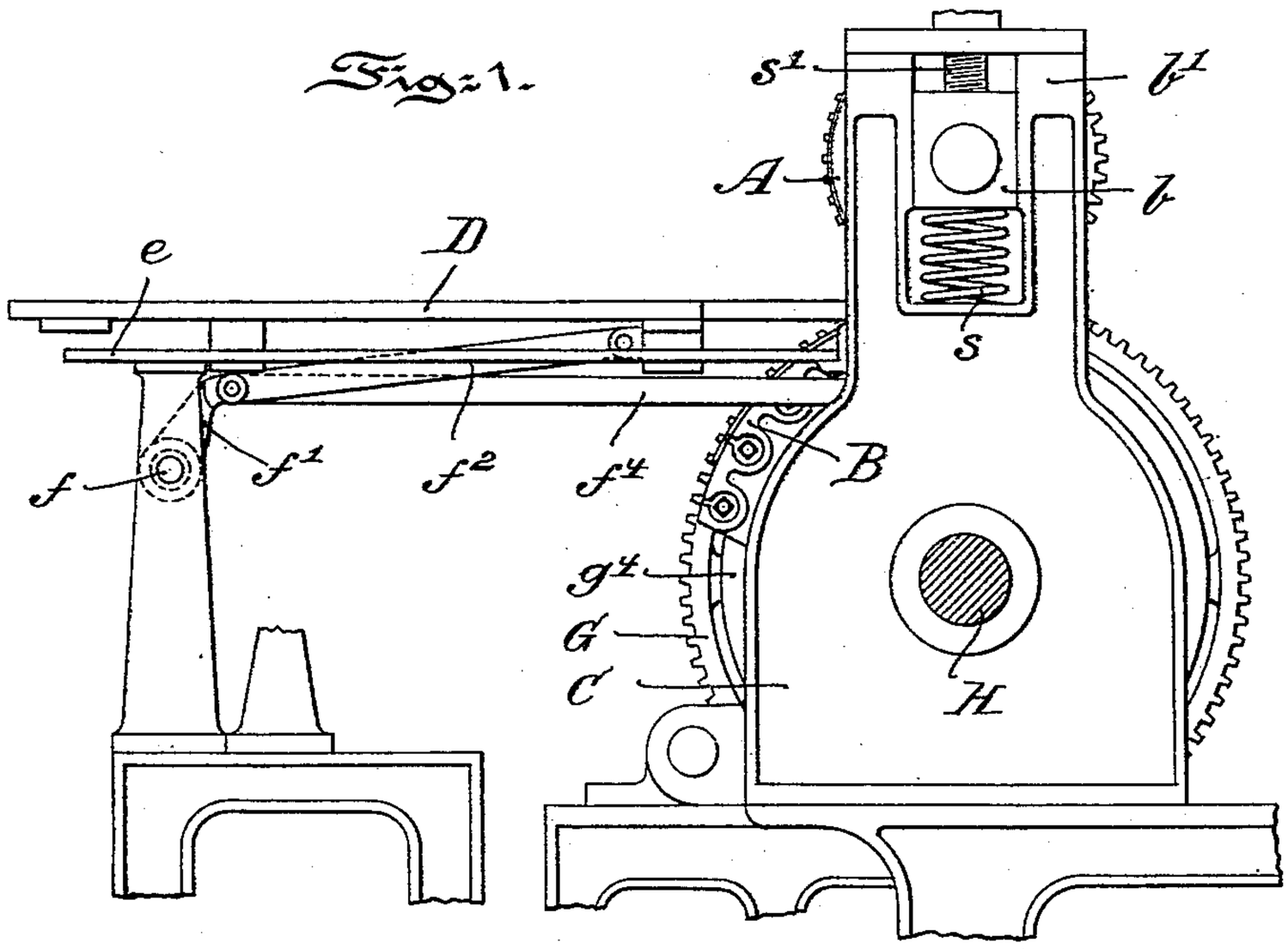
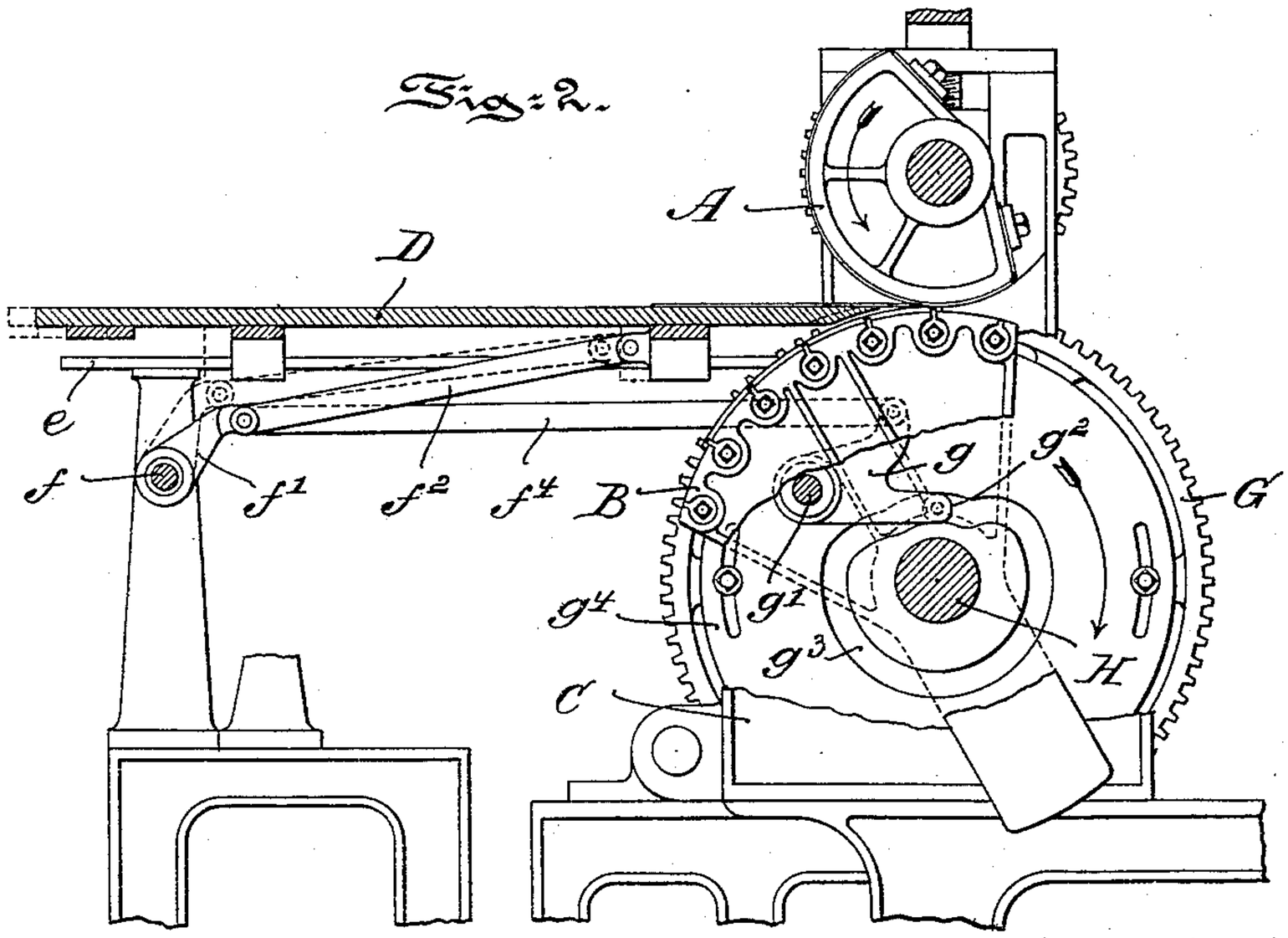


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

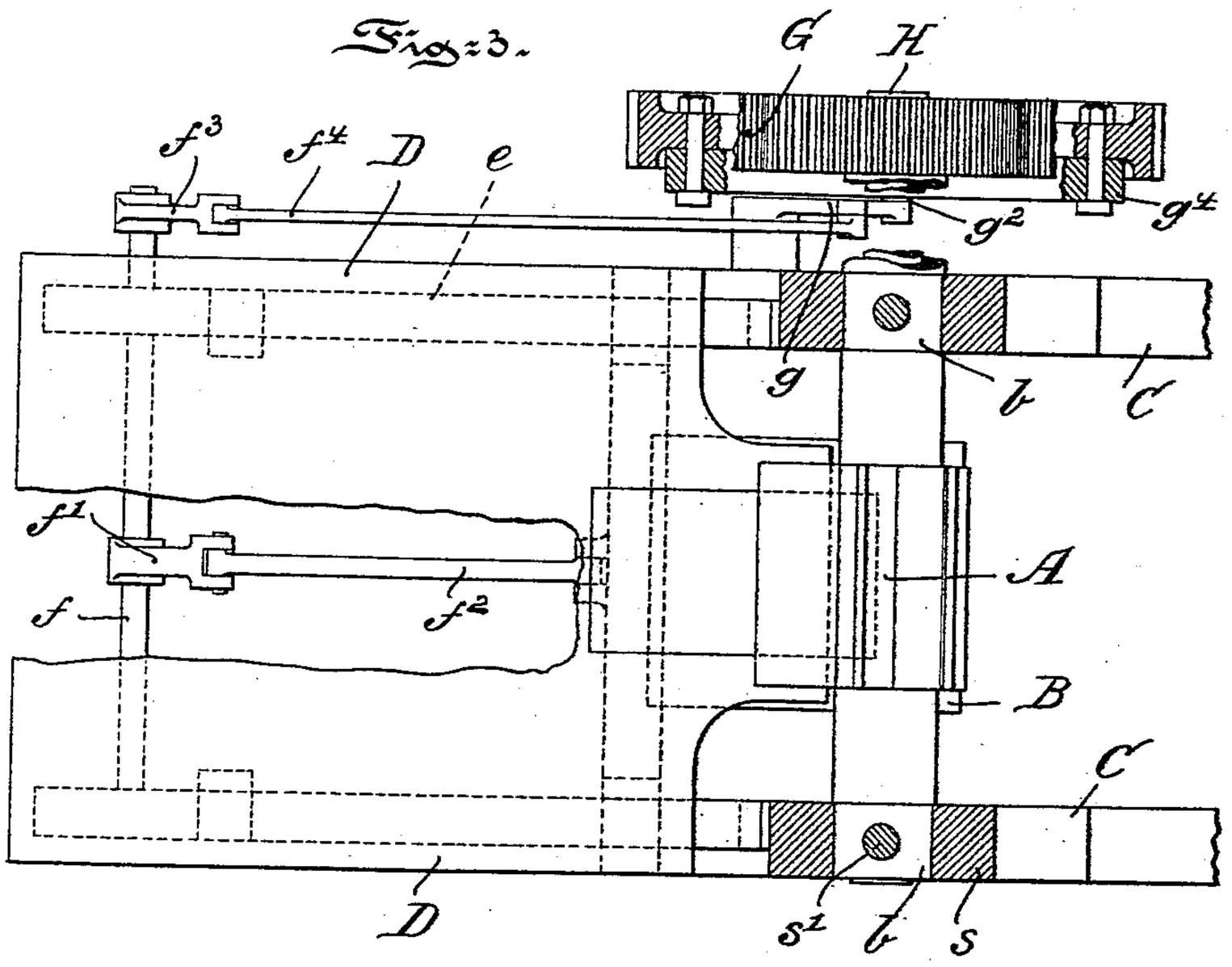
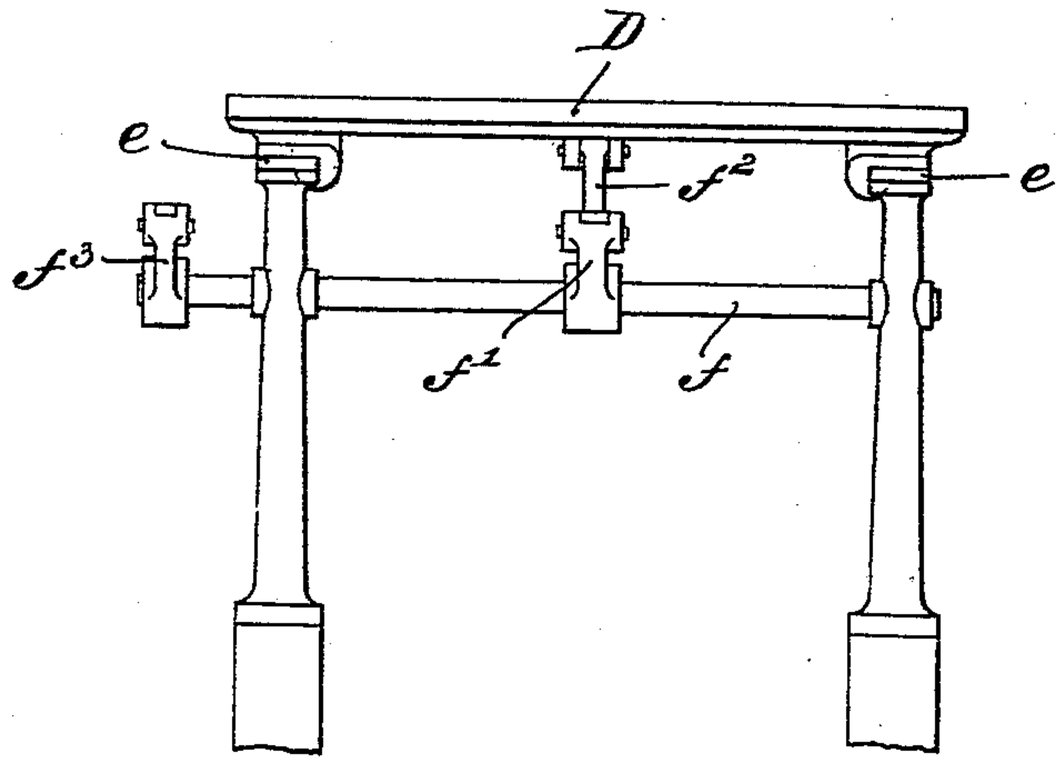


Fig. 4.



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UNITED STATES PATENT OFFICE.

EUGENE S. BRADFORD, OF NEW YORK, N. Y., ASSIGNOR TO THE STEEL PLATE PRINTING COMPANY, OF CAMDEN, NEW JERSEY, AND PHILADELPHIA, PENNSYLVANIA.

FEEDING DEVICE FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 625,317, dated May 23, 1899.

Application filed January 7, 1899. Serial No. 701,440. (No model.)

To all whom it may concern:

Be it known that I, EUGENE S. BRADFORD, a citizen of the United States, residing at the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Feeding Devices for Printing-Presses, of which the following is a specification.

My invention has relation to printing-presses, and particularly in such connection does it relate to feeding devices for such presses.

The principal object of my invention is to provide a simple, effective, and reliable feeding device for a printing-press, and more particularly of the rotary plate-printing type adapted to be reciprocated to and from impression and plate cylinders of the press, so as to bring the paper or other matter to be printed upon into the bite of the said cylinders to cause the work to register accurately with the plate of one of said cylinders and providing the same with suitable means for actuating said feeding device.

My invention, stated in general terms, consists of a feeding device for a printing-press, substantially as hereinafter described and claimed.

The nature and characteristic features of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a side elevation of a portion of a printing-press embodying main features of my present invention. Fig. 2 is a longitudinal central section of Fig. 1, showing the feeding device of my said invention in its actuated position. Fig. 3 is a top or plan view, partly sectioned, of Fig. 1; and Fig. 4 is a rear elevational view of the said feeding device of the press.

Referring to the drawings, in the machine of my said invention A is the impression-cylinder, and B a plate-cylinder, both suitably journaled in bearings in the framework C of the machine. The bearings b of the impression-cylinder are preferably supported in vertical guides b', and a spring s and a set-screw s' are provided, whereby the position and pressure of the impression-cylinder are readily and efficiently adjusted.

D is the feed-board, which reciprocates on guides e toward and away from the impression and plate cylinders A and B, so that the paper sheet being placed on this board is fed into the bite of the cylinders, which carry it through and deliver it at the other side of the same, thereby dispensing with grippers or other similar appliances for holding the paper or cardboard in proper position and insuring more exact registration. To effect such reciprocation of the feed-board, a rock-shaft f is employed, which is connected by an arm f' and link f^2 to the feed-board and by an arm f^3 and link or bar f^4 to a bent lever g, pivotally secured at g' to the framework C. This lever is provided with a roll g^2, engaging in a cam-groove g^3 of a disk g^4. This disk is adjustably carried, preferably, by a movable part of the machine—for example, by the gear-wheel G, as illustrated in Figs. 2, 3, and 4 of the drawings. The gear-wheel G is secured to the main shaft H of the plate-cylinder B and is driven by any suitable mechanism. (Not shown.) By the rotation of said disk g^4 the bent lever g is moved up and down by means of the roll g^2, caused to travel in the cam-groove g^3, and imparting reciprocating motion to the rock-shaft f, which in turn causes a back-and-forth movement of the feed-board toward and from the respective cylinders A and B of the press. The front portion of the feed-board D is pointed in order to enable the same to be brought in close proximity to the point of contact of the impression-cylinder A with the plate-cylinder B, so that the paper or other matter to be printed upon placed on the feed-board and projecting, preferably, a short distance therefrom may be brought accurately into the bite of the respective cylinders, thereby insuring perfect impressions through the pressure of the cylinders upon the matter to be printed upon and likewise insuring a uniform feed of the paper or other matter to, between, and from said cylinders.

Having thus described the nature and ob-

ject of my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a machine of the character described, impression and plate cylinders, a feed-board provided with a reduced or pointed front adapted to be moved on guides to and from said impression and plate cylinders so that the paper or other matter to be printed upon placed on said board may be brought accurately into the bite of said cylinders and also register accurately with a plate carried by one of said cylinders, a rock-shaft connected by an arm and link with said board, an arm and link or bar connected with a pivoted bent lever provided with a roll engaging in a cam-groove of an adjustable disk carried by a gear-wheel and means for actuating said wheel, substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

EUGENE S. BRADFORD.

Witnesses:

J. WALTER DOUGLASS,

RICHARD C. MAXWELL.