



A.D. 1848 N° 12,340.

S P E C I F I C A T I O N

OF

HENRY ARCHER.

**PERFORATING POSTAGE STAMPS, TICKETS,
LABELS, &c.**

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 8d.

1857.





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Perforating Postage Stamps, Tickets, Labels, &c.

ARCHER'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, HENRY ARCHER, of Great George Street, Westminster, Gentleman, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her Royal Letters Patent, under the Great Seal of Great Britain, bearing date
5 at Westminster, the Twenty-third day of November, in the twelfth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Henry Archer, Her especial license, full power, sole privilege and authority, that I, the said Henry Archer, my exors, admors, and assigns, and such others as I, the said Henry Archer, my exors, admors, or assigns should
10 at any time agree with and no others, from time to time and at all times during the term of years therein mentioned, should and lawfully might make, use, exercise, and vend within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "IMPROVEMENTS IN FACILITATING THE DIVISION OF SHEETS OR PIECES OF PAPER, PARCHMENT, OR OTHER SIMILAR SUBSTANCES;"
15 in which said Letters Patent is contained a proviso obliging me, the said Henry Archer, by an instrument in writing under my hand and seal, particularly to describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, and to cause the same to be enrolled in Her Majesty's High Court of Chancery within six calendar
20 months next and immediately after the date of the said in part recited

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Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Henry Archer, do hereby declare that the nature of my said Invention, and the manner in which the same is to be performed is particularly described 5 and ascertained in and by the following description thereof, reference being had to the Drawings hereunto annexed, and to the letters and figures marked thereon (that is to say):—

The principal object of this Invention is to enable persons when using postage stamps, tickets, or other small labels to separate one or more from a sheet 10 without the employment of a cutting instrument. This improvement I effect by cutting or stamping around the margin of every stamp, ticket, or label a consecutive series of holes, whereby the tearing up of the sheets, of paper or parchment into pieces of uniform size will be greatly facilitated, while there will be sufficient adherence of the several stamps, tickets, or labels, which are 15 printed on one sheet of paper or parchment, to ensure their retaining the form of a sheet until they are intentionally separated for use.

In the accompanying Drawing I have shewn several views of a stamping press, whereby I am enabled to effect the stamping process with great expedition. 20

Fig. 1 is a side view; Fig. 2 a front view; and Fig. 3 a vertical section taken in the line 1.....2, Fig. 2. *a, a*, is the main framing of the press; *b, b*, are horizontal bracket arms bolted to a cross bar *a**, of the framing *a*, and provided with V-bars, over which a sliding frame *c* traverses. This frame *c* is intended to carry the sheet of paper or other substance intended to be 25 pierced with holes, and for this purpose it is provided at front and back with a set of clips or holders *d, d**, for grasping the edges of the sheet, the jaws of one set of clips *d* being stationary as regards their position on the frame *c, c*, and those of the other *d** being capable of sliding so as to draw the sheet of paper or other material to a suitable tension to be pierced. The construction of 30 these clips is best shewn at Fig. 3. The lower jaw of the moveable set of clips *d** carries the upper jaw, and a continuation of the lower jaw passes through and slides in a bearing attached to the frame. A coiled spring surrounding this continuation of the lower jaw of each clip *d** bears against a nut on the end thereof, and against the piece through which the tail of the jaw 35 slides. The object of this spring is to give the clips a tendency to recede from the clips *d* at the other end of the frame *c*, and thus to keep the sheet of paper or other substance in tension. On the top of the cross bar *a**, a slotted plate *e* is bolted, and over the slot a perforated plate *f* is fixed. These parts

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are shewn best in the detached sectional view Fig. 4, which represents the punches and the parts in connection therewith on an enlarged scale. The perforated plate *f* is a matrix to receive the ends of the punches; the mode of supporting and working which I will now describe. *g* is a plate
 5 in which a series of pins are set in such order of lines as will allow of their circumscribing each stamp of a row of stamps and punching corresponding holes in the sheet of paper or parchment containing such stamps. The arrangement and fixing of the pins will be better understood on referring to Figs. 5 and 6, which shew the parts in connection therewith in
 10 sectional elevation and plan view, on a scale corresponding to Fig. 4. The matrix plate *f*, Fig. 6, shews the mode of arranging the pins when sheets of British postage stamps are to be pierced, but it will be obvious that sheets containing round or oval stamps, or stamps or labels of any size or form, may also be pierced with facility, a difference only in the arrangement of the pins
 15 and the perforations of the matrix plate being necessary. *h* is a metal plate which carries the plate *g* with its pins, and is attached to and forms part of the plunger *i*. This plunger (see Fig. 2) is provided at its upper part with guides, which work against smooth surfaces of the framing, as is usually employed in such machinery for steadying its movement, and it is jointed to a
 20 rod *k*, pendant from a strap piece which embraces an excentric *l*. *h** is a guide embracing the lower end of the plunger, and intended to ensure the proper action of the punch with respect to the matrix plate *f*; *m* is a shaft having its bearings in the upper part of the frame *a*, and carrying at about the middle of its length the excentric *l*. At one end of this shaft, a hand wheel *n*
 25 is keyed for working the machinery, and at the other end the shaft carries a disc *o*, which has a straight dovetail slot running across its centre. This slot is intended to receive an adjustable stud pin of a connecting rod *p*, the lower end of which is secured by a pin to two arms *q*, *q** projecting from loose bosses on the short shaft *r*. To the inner end of the shaft *r*, a
 30 pinion is keyed, which gears into a rack on the side of the frame *c*, and is intended to drive forward that frame together with the sheet of paper or other substance which it carries, so as to bring a different part of the sheet under the action of the punches at each descent of the block *i*. This movement is regulated by the following means:—On the shaft *r* a disc wheel *s* is mounted,
 35 which is provided on its periphery with nicks or indentations to receive a pawle or catch *t* suspended from the arm *q**; the boss of the arm *q* has also an arm *q*¹ which is connected to the lower end of the catch *t* by a rod *u*; the upper end of the arm *q** is slotted, so as to allow of a little play therein of the pin of the connecting rod *p*. When the rod *p* is, by the rotation of the disc *o*,

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depressed, it will force down the arms q , q^* , and with them the catch t , which being in a notch of the disc will drive round that disc and consequently the shaft r , together with its pinion, which takes into the racks of the frame c ; thus the frame c will be moved forward a given distance proportionate to the eccentricity of the pin of the connecting rod p in the groove of the disc o , but 5 on the rising of the rod p by the continued rotation of the disc o , it will raise the arm q , and simultaneously the arm q^1 , whereby the rod u will be made to lift the catch t out of the notch in the disc s ; and as soon as the pin which connects the rod p with the arms q , q^* , has traversed the slot of the arm q^* , the catch (to which latter arm it is directly attached) will be drawn upwards 10 until it drops into the next succeeding notch, when it is ready to act as before. To ensure the quiescence of the arm q^* , when the pin of the rod p has ceased to act upon it, and is traversing the slot in that arm, a spring friction piece attached to the arm q^* is made to embrace a segmental piece attached to the framing a . 15

It will now be understood that when the hand wheel n is turned, the excentric l will depress the plunger i (which carries the punch), and the paper or other substance beneath will be pierced as required; but immediately before the punch begins to act, the apparatus for bringing forward the paper will have acted, as above described, and thus successive rows of the stamps, 20 labels, or tickets will be pierced at their circumference, as required.

Having now described my Invention, and the machinery which I prefer for carrying the same into effect, I wish it to be understood that I do not confine myself to the use of such machinery, nor to the punching of round holes in the margin of stamps, tickets, or labels, for other machinery might doubtless 25 be devised to effect such purpose, and, instead of punched holes, consecutive short slits, formed by strait cutting edges similar to a lancet point, might be adopted to facilitate the after separation of the labels; I therefore wish it to be understood that what I claim under the herein-before in part recited Letters Patent, is the preparation of sheets or pieces of paper, parchment, and 30 other similar substances, which contain stamps, tickets, labels, and other analogous impressions upon them, so that they may be divided with facility when the natural tenacious adherence of the fabric, as a whole, is destroyed (for the above described object) by either of the operations of piercing, cutting, or stamping. 35

In witness whereof, I, the said Henry Archer, have hereunto set my hand and seal, this Twenty-third day of May, in the year of our Lord One thousand eight hundred and forty-nine.

HENRY ARCHER. (L.S.)

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AND BE IT REMEMBERED, that on the Twenty-third day of May, in the year of our Lord 1849, the aforesaid Henry Archer came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

Enrolled the Twenty-third day of May, in the year of our Lord One thousand eight hundred and forty-nine.

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1857.

FIG. 1

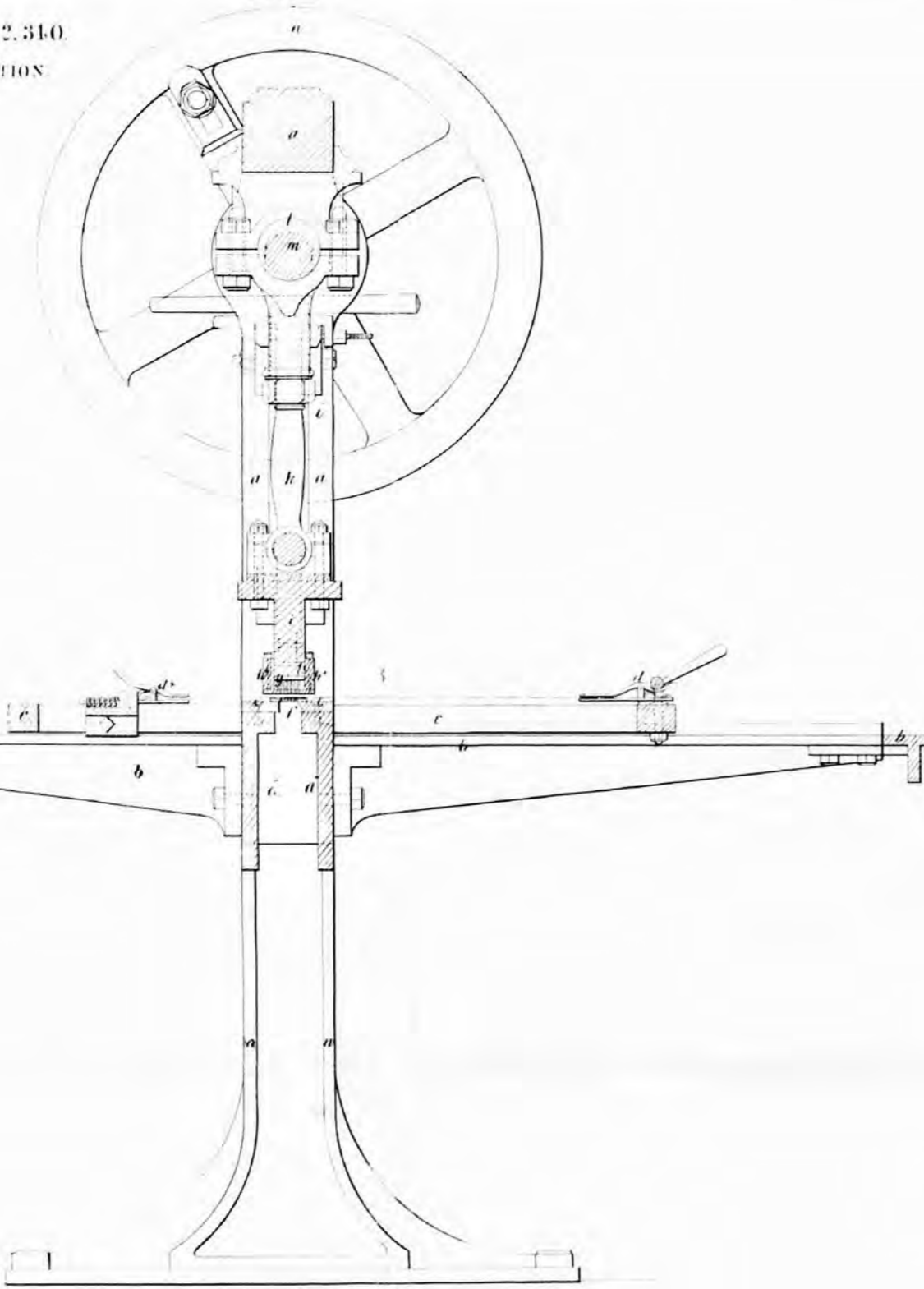


FIG. 1

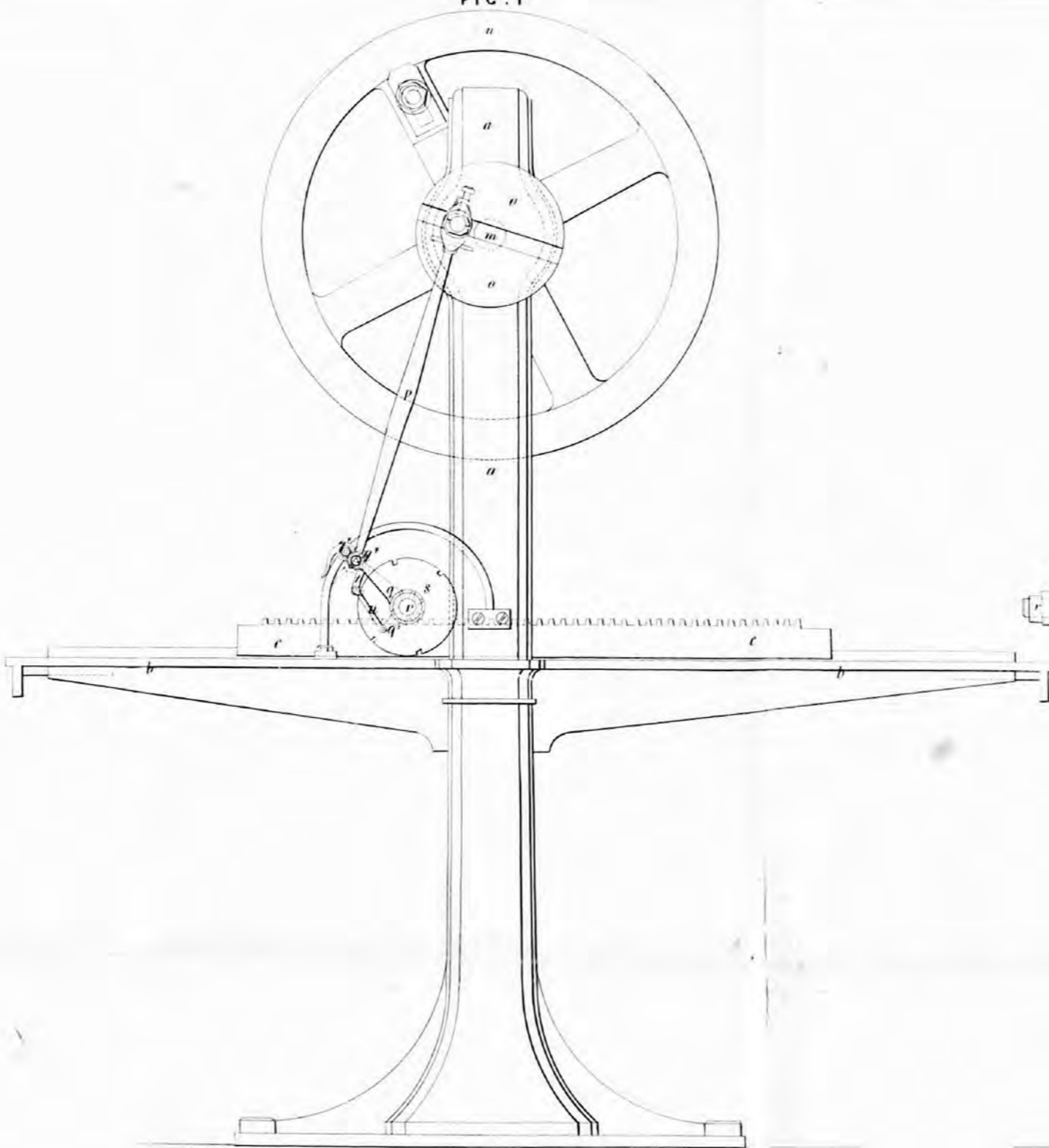


FIG. 2

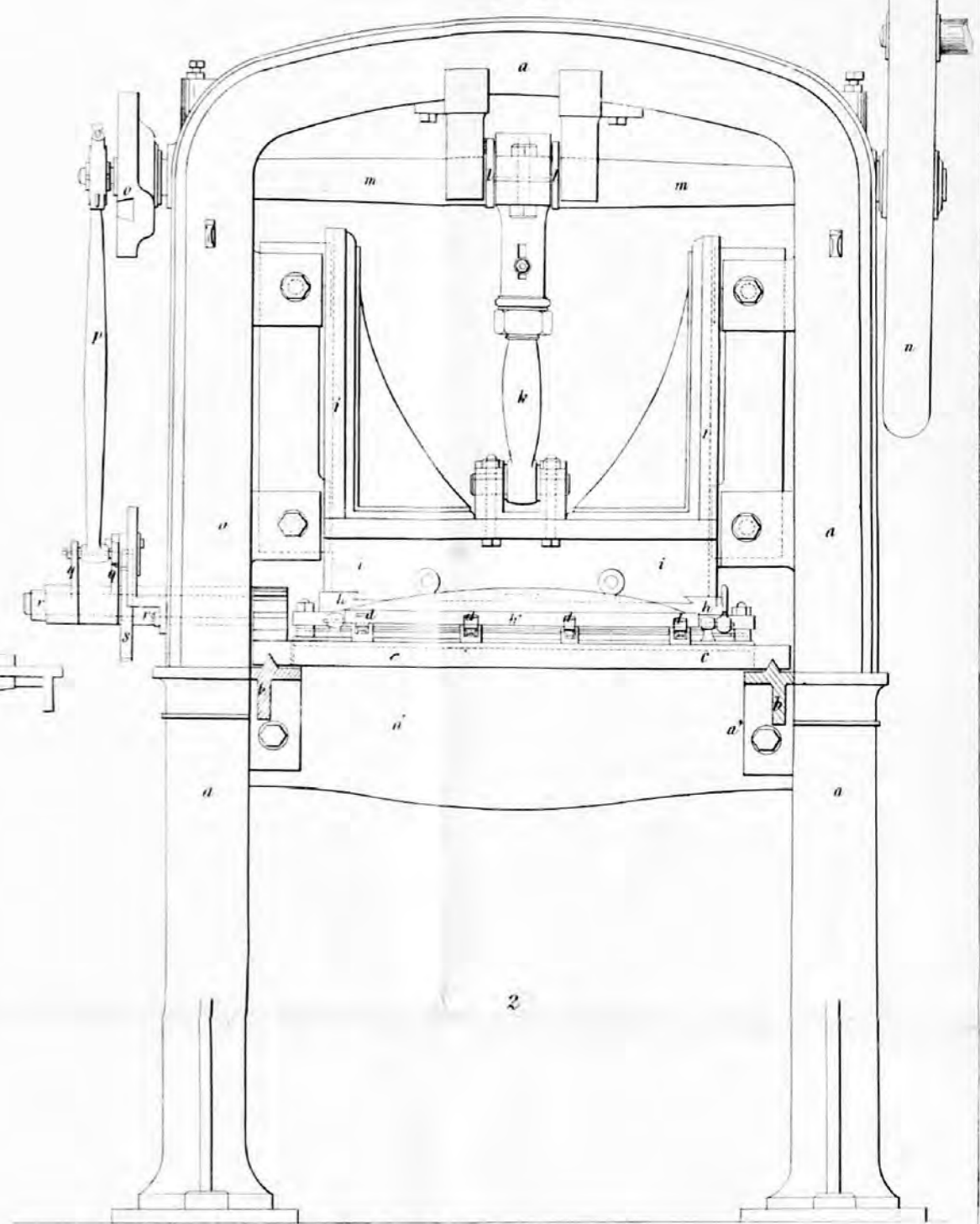


FIG. 5

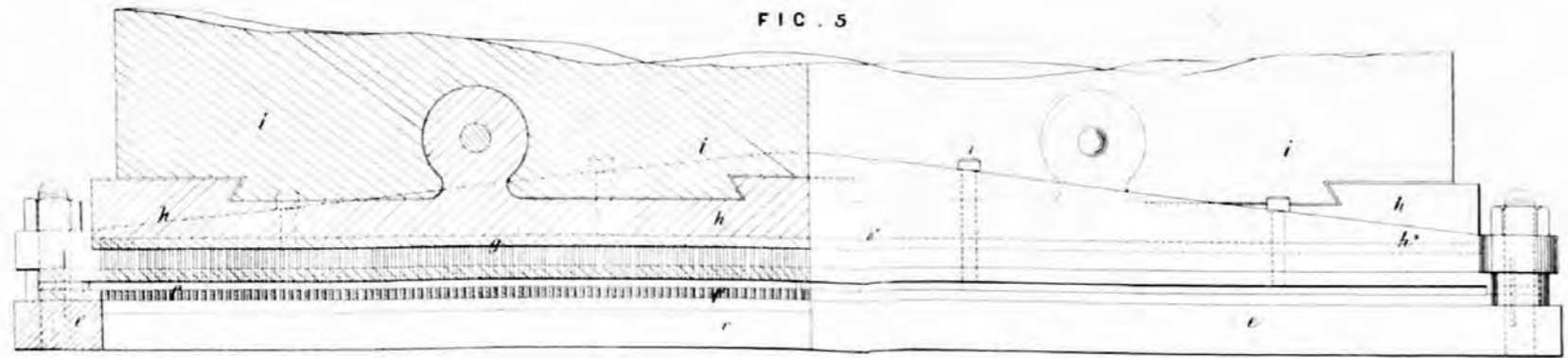


FIG. 4

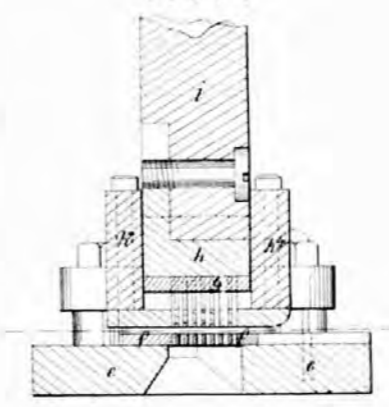
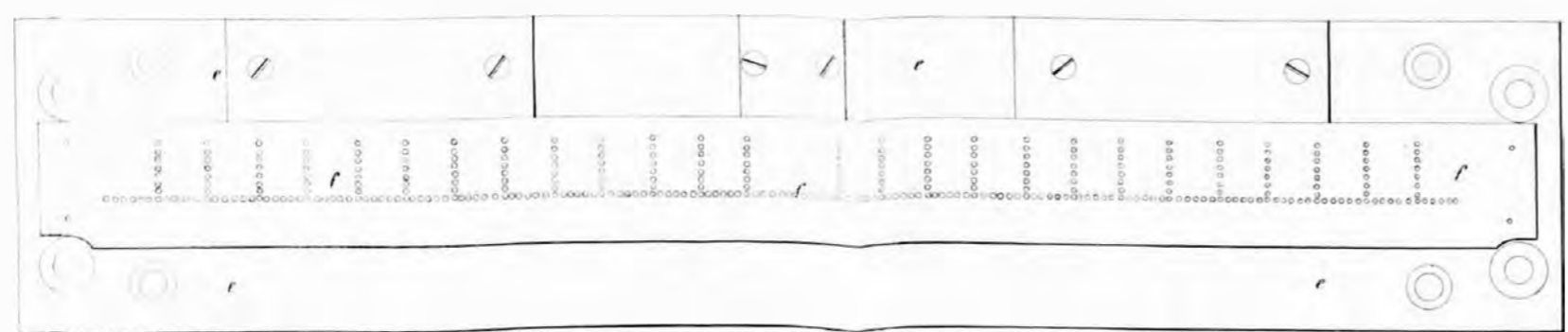


FIG. 6



The enclosed drawings are partly colored

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FIG. 1

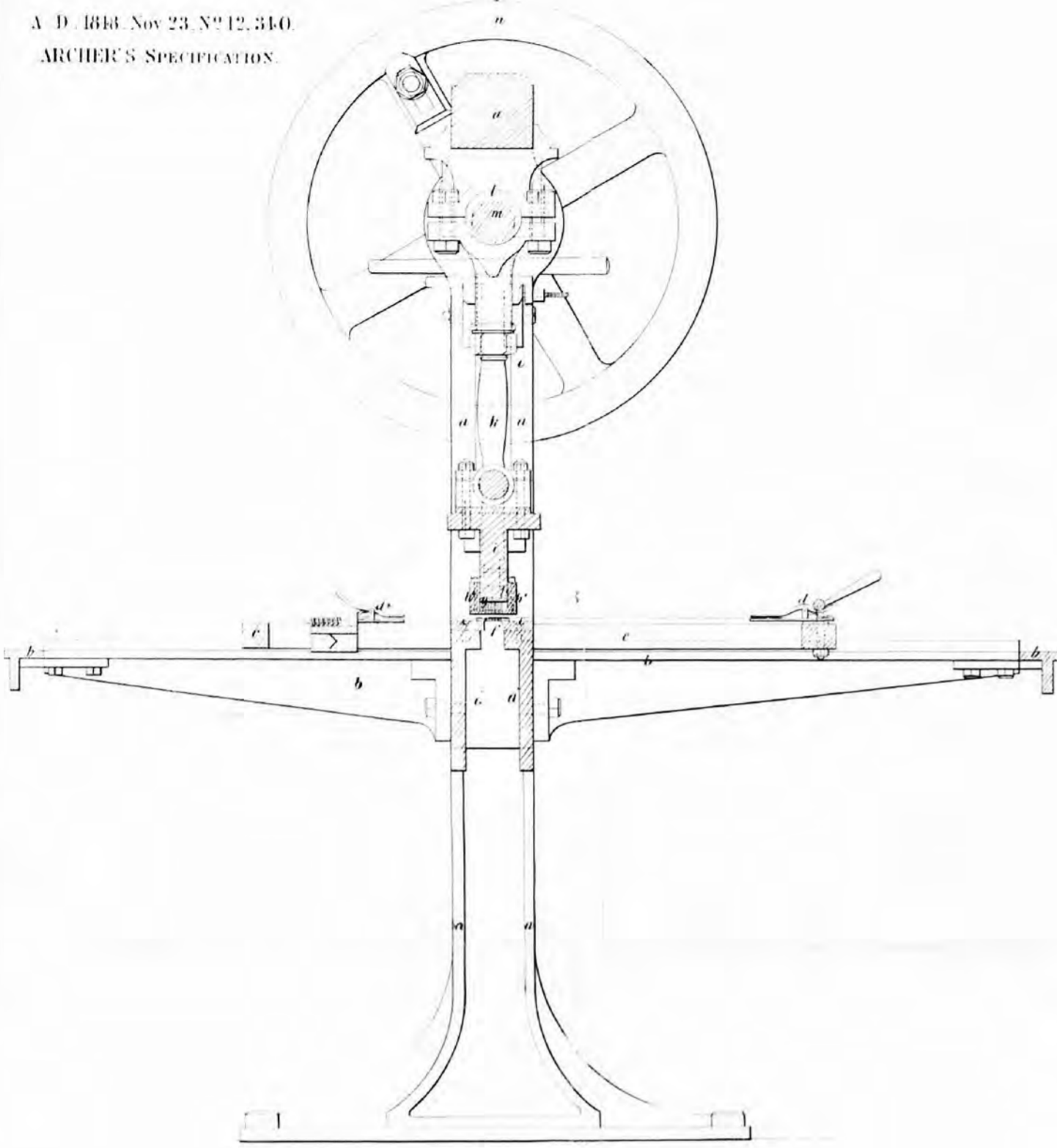


FIG. 1

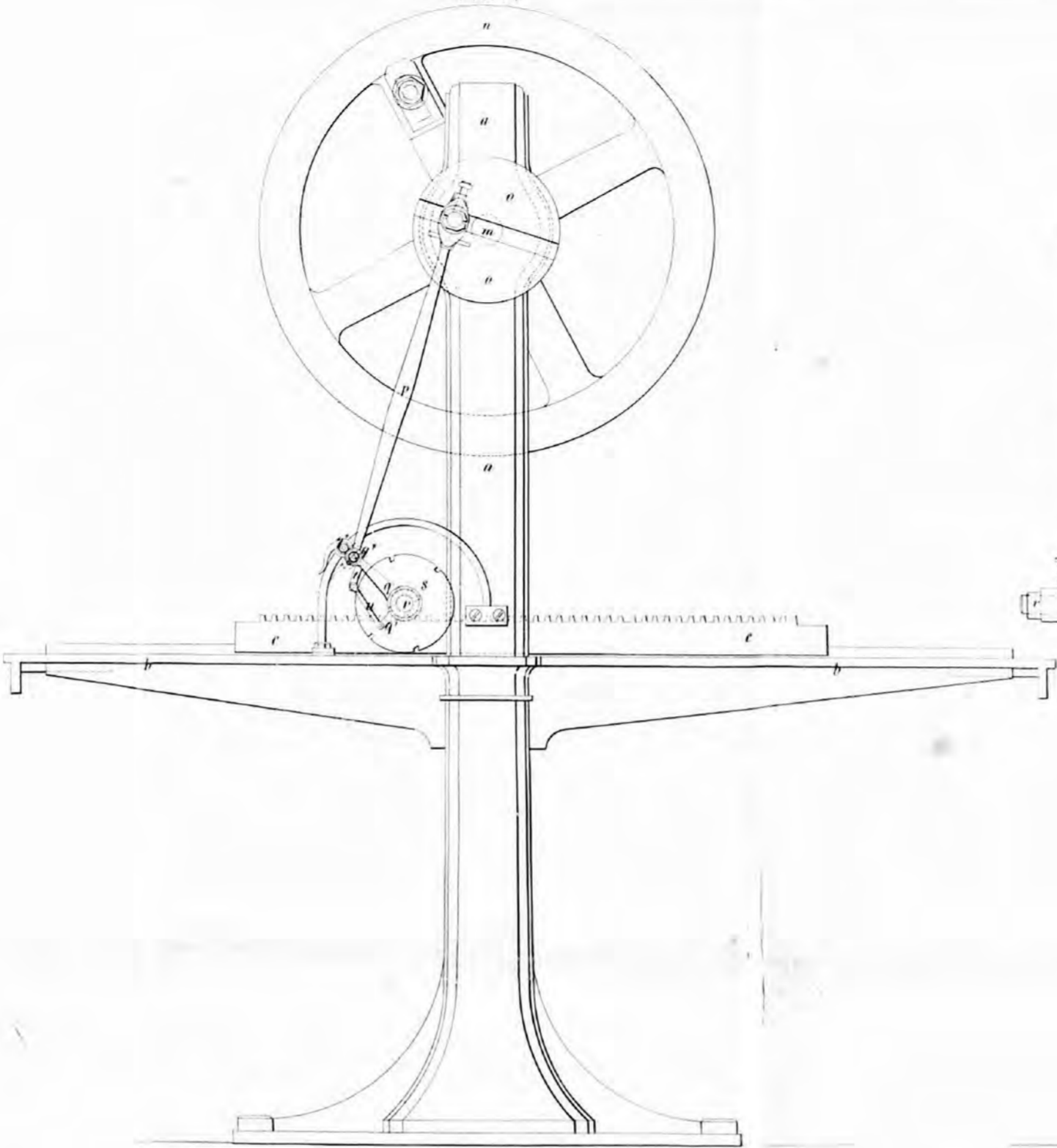


FIG. 2

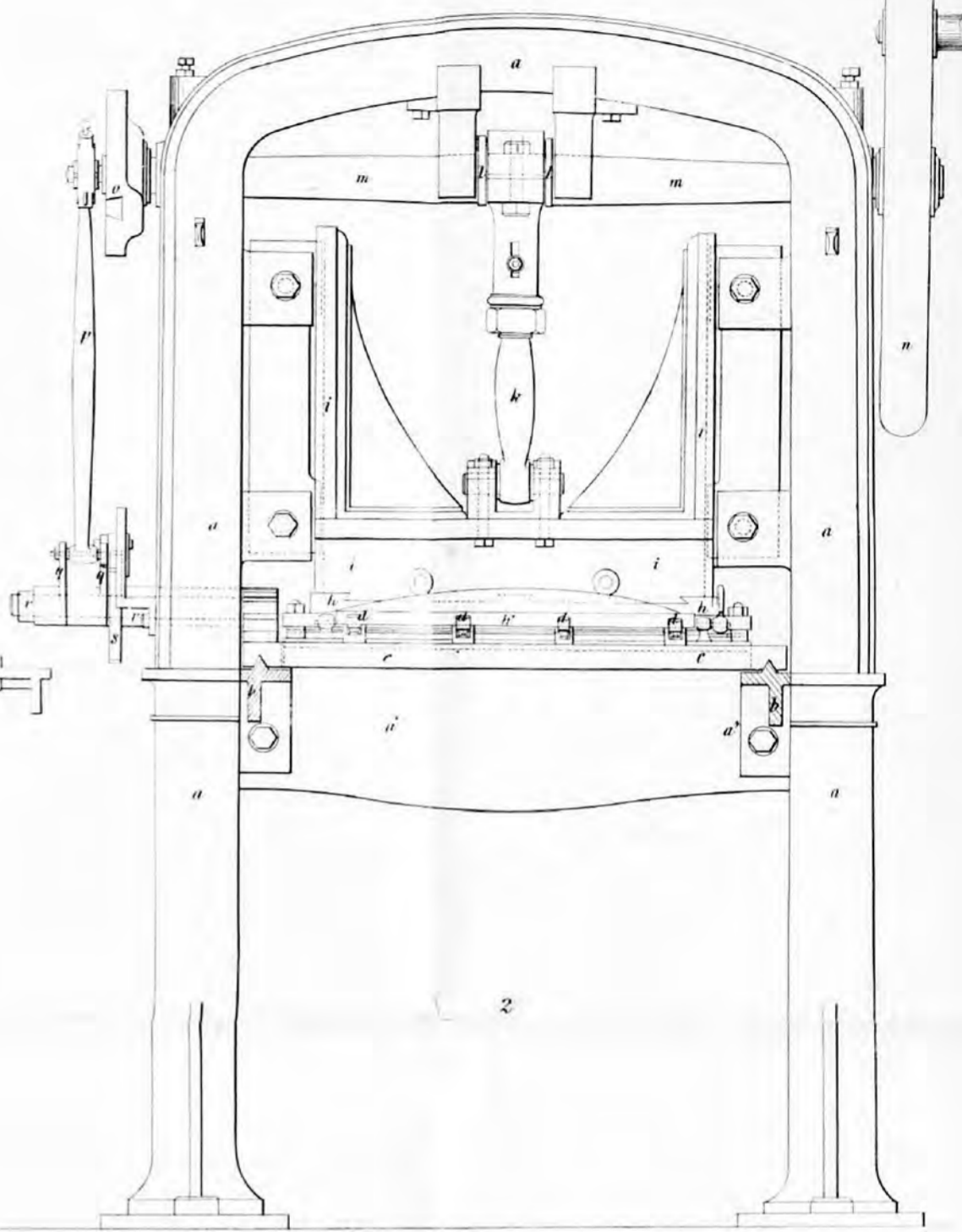


FIG. 5

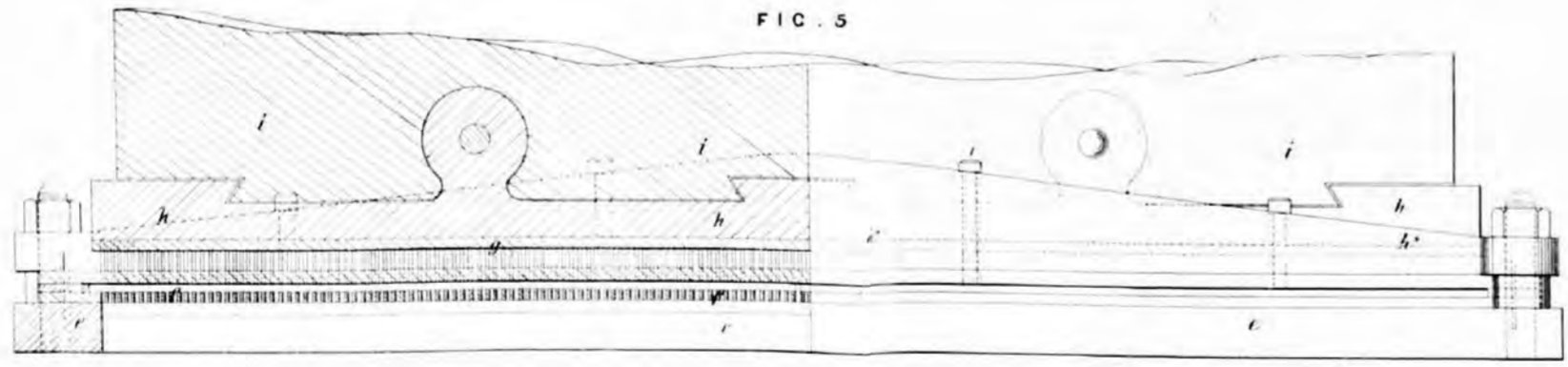


FIG. 4

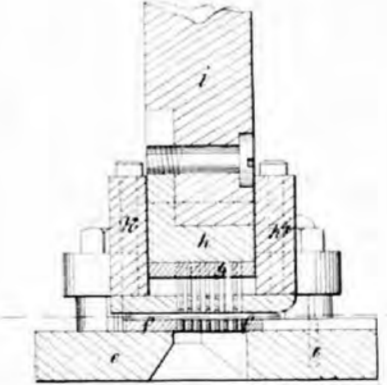
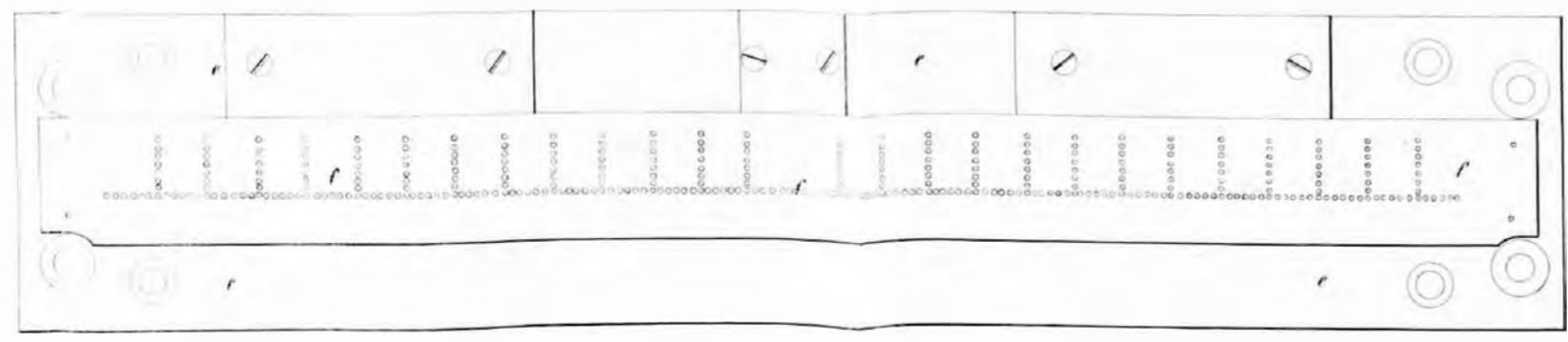


FIG. 6



the shaded drawings are partly colored

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