

## **Specification of Bertram Mitford : communicating with deaf and dumb persons.**

### **Contributors**

Mitford, Bertram.

### **Publication/Creation**

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A.D. 1868, 30th MARCH. N<sup>o</sup> 1075.

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

OF

BERTRAM MITFORD.

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COMMUNICATING WITH DEAF AND DUMB  
PERSONS.

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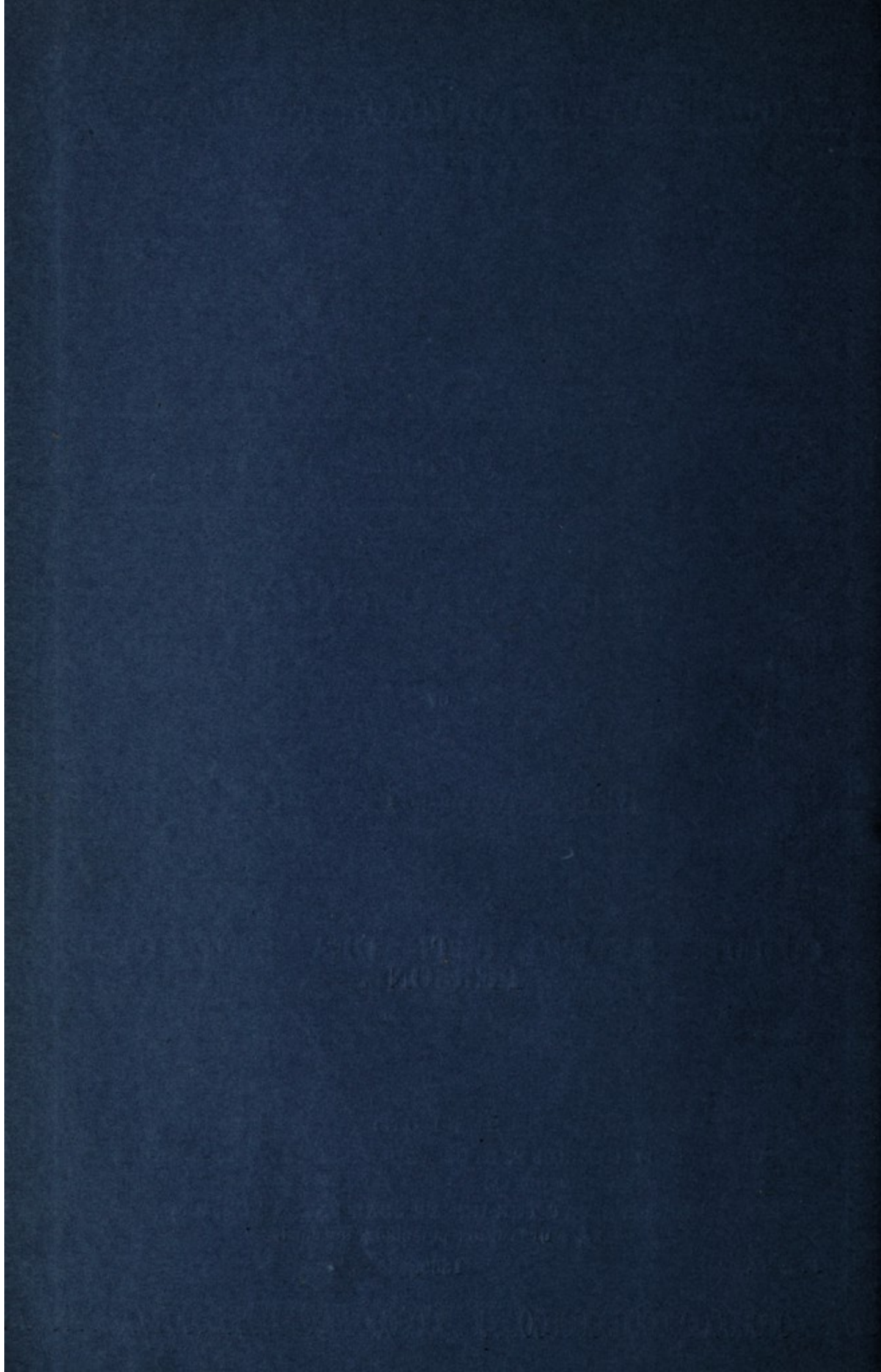
LONDON:

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1868.





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A.D. 1868, 30th MARCH. N° 1075.

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**Communicating with Deaf and Dumb Persons.**

**LETTERS PATENT** to Bertram Mitford, of Cheltenham, in the County of Gloucester, for the Invention of "**IMPROVEMENTS IN APPARATUS FOR COMMUNICATING WITH DEAF AND DUMB OR DEAF OR DUMB PERSONS.**"

Sealed the 26th May 1868, and dated the 30th March 1868.

**PROVISIONAL SPECIFICATION** left by the said Bertram Mitford at the Office of the Commissioners of Patents, with his Petition, on the 30th March 1868.

I, **BERTRAM MITFORD**, of Cheltenham, in the County of Gloucester, do hereby declare the nature of my said Invention for "**IMPROVEMENTS IN APPARATUS FOR COMMUNICATING WITH DEAF AND DUMB OR DEAF OR DUMB PERSONS,**" to be as follows:—

This Invention relates to a peculiar form of apparatus for facilitating intercourse with deaf and dumb or deaf or dumb persons, and consists in the construction of a hollow case of any convenient form and size composed of wood or other suitable light material and provided with a handle whereby it may be easily held in the hand of the user. On that side of the said case which is intended to face the user there are contained the letters of the alphabet, numerals, or other signs useful in personal

*Mitford's Improvements in Communicating with Deaf and Dumb Persons.*

intercourse, and upon the opposite side or that which faces the person communicated with there is provided an aperture which may be protected by glass. In the interior of the hollow case are disposed a number of slides worked by buttons which traverse along slots disposed each immediately above a different letter or sign. The upper end of 5 each of these slides carries the corresponding letter or sign to that marked on the case opposite to the particular button, and when any slide or button is pushed along the slot the corresponding letter or sign will be presented at the glazed aperture on the opposite side of the case. By successively raising and lowering or moving the slides it is obvious 10 that words can be easily spelt and communication be thus established with the deaf and dumb or deaf or dumb without necessitating a knowledge of the signs known as "the deaf and dumb or finger alphabet."

**SPECIFICATION** in pursuance of the conditions of the Letters Patent, 15 filed by the said Bertram Mitford in the Great Seal Patent Office on the 1st September 1868.

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, BERTRAM MITFORD,** of Cheltenham, in the County of Gloucester, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her 20 Letters Patent, bearing date the Thirtieth day of March, in the year of our Lord One thousand eight hundred and sixty-eight, in the thirty-first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Bertram Mitford, Her special license that I, the said Bertram Mitford, my executors, administrators, and 25 assigns, or such others as I, the said Bertram Mitford, my executors, administrators, or assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel 30 Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN APPARATUS FOR COMMUNICATING WITH DEAF AND DUMB OR DEAF OR DUMB PERSONS,**" upon the condition (amongst others) that I, the said Bertram Mitford, my executors or administrators, by an instrument in writing under my hand and seal, should particularly describe and ascertain the nature of the said 35

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Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

5 NOW KNOW YE, that I, the said Bertram Mitford, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, reference being had to the accompanying Drawings, and to the letters and figures marked thereon, that is  
10 to say:—

My said Invention relates to a peculiar form of apparatus for facilitating intercourse with deaf and dumb or deaf or dumb persons, and consists of a hand telegraph composed of a hollow case of any convenient form and size made of wood or other suitable light material,  
15 and provided with a handle whereby it may be easily held in the hand of the user. On that side of the said case which is intended to face the user there are contained the letters of the alphabet, numerals, or other signs useful in personal intercourse, and upon the opposite side or that which faces the person communicated with there is provided an aperture  
20 which may be protected by glass. In the interior of the hollow case are disposed a number of sliding wires worked by buttons which traverse along slots disposed each immediately above a different letter or sign. The upper end of each of these sliding spindles carries the corresponding letter or sign to that marked on the case opposite to the particular  
25 button, and when any slide or button is pushed along the slot the corresponding letter or sign will be presented at the glazed aperture on the opposite side of the case. By successively raising and lowering or moving the slides it is obvious that words can be easily spelt and communication be thus established with the deaf and dumb or deaf or  
30 dumb without necessitating a knowledge of the signs known as “the deaf and dumb or finger alphabet.”

And in order that the said Invention may be fully understood I shall now proceed more particularly to describe the same, and for that purpose shall refer to the several Figures on the annexed Sheet of  
35 Drawings, the same letters of reference indicating corresponding parts in all the Figures.

Figure 1 of my Drawings represents a front elevation of my improved apparatus, which I have named “The Hand Telegraph for the Deaf or

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Dumb," with one half of the cover removed to show the internal arrangement; Figure 2 is a corresponding vertical section of the same at right angles to Figure 1; and Figure 3 is a back elevation showing the aperture at which the letters or other signs are exhibited.

A is a flat or shallow box or case made of wood, light metal, or other 5  
suitable material, and by preference of a quadrant shape, as shown by  
the Drawings, for the facility of disposing of or arranging the moveable  
parts carrying the letters or signs to be exhibited, as well as the  
quadrants containing the corresponding letters and signs indicated  
outside the case. In the interior of the case A are disposed in a radial 10  
or converging direction a number of sliding spindles or wire rods *a, a*,  
guided laterally and maintained at equal distances apart by passing  
between guides *b, b*, secured to the interior of the back of the box or  
case. These several sliding wires or rods are held down in their places  
by the cross bar *c*, the rubbing surfaces of the said bar and of the back 15  
of the box being faced with leather if desired, as shown at *d, d; e, e*,  
*e* are buttons fast on the sliding rods *a*, and projecting through the front  
of the box at right angles to the said sliding wires or rods; these  
buttons pass through circular openings *f*, with which openings long  
and narrow slots *g* made in the front of the box or case communicate. 20  
The several buttons *e* traverse these slots, a flattened portion of the  
buttons entering the said slots. The instrument which I have illustrated  
contains the letters of the alphabet and the sign "&," these being  
perforated or cut out after the manner of stencil plates in thin plates of  
metal *h, h*, each attached to its respective rod *a*, the button of that 25  
particular rod corresponding in position with the same letter or sign  
on one or other of the two indicating quadrant plates *i, i*. In order to  
economise space I have disposed the plates *h* and rods *a* in two tiers or  
series one behind the other separated by a partition of thin sheet metal *k*,  
the one series corresponds to the letters in the upper or smaller quadrant, 30  
and the other to the letters or signs in the lower or larger quadrant.  
B is a handle secured to the wider part of the apparatus by which it is  
held by the user, and C is a small glazed aperture made in the back of  
the box or case through which any letter or sign moved up by sliding  
one or other of the buttons along its slot may be presented to the view 35  
of the person with whom communication is being held, as shewn in  
Figure 3. Care should be taken in spelling out the words by the aid  
of this instrument that one letter be moved up to the aperture C and  
withdrawn again from sight before another is acted upon.

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Having now described and particularly ascertained the nature of my said Invention, and the manner in which the same is or may be used or carried into effect, I would observe in conclusion that what I consider to be novel and original, and therefore claim as the  
5 Invention secured to me by the herein-before in part recited Letters Patent is, the combination of moveable letters or signs with actuating slides and buttons or projections working through slots on one side of a box or case, the opposite side of such box or case containing an aperture through which is exhibited singly the particular letter or sign required,  
10 the whole being arranged and operated substantially as and for the purpose herein-before described and illustrated by my Drawings.

In witness whereof, I, the said Bertram Mitford, have to this my Specification set my hand and seal, the Thirteenth day of August One thousand eight hundred and sixty-eight.

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BERTRAM MITFORD. (L.S.)

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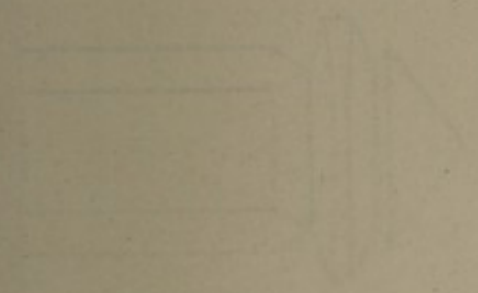
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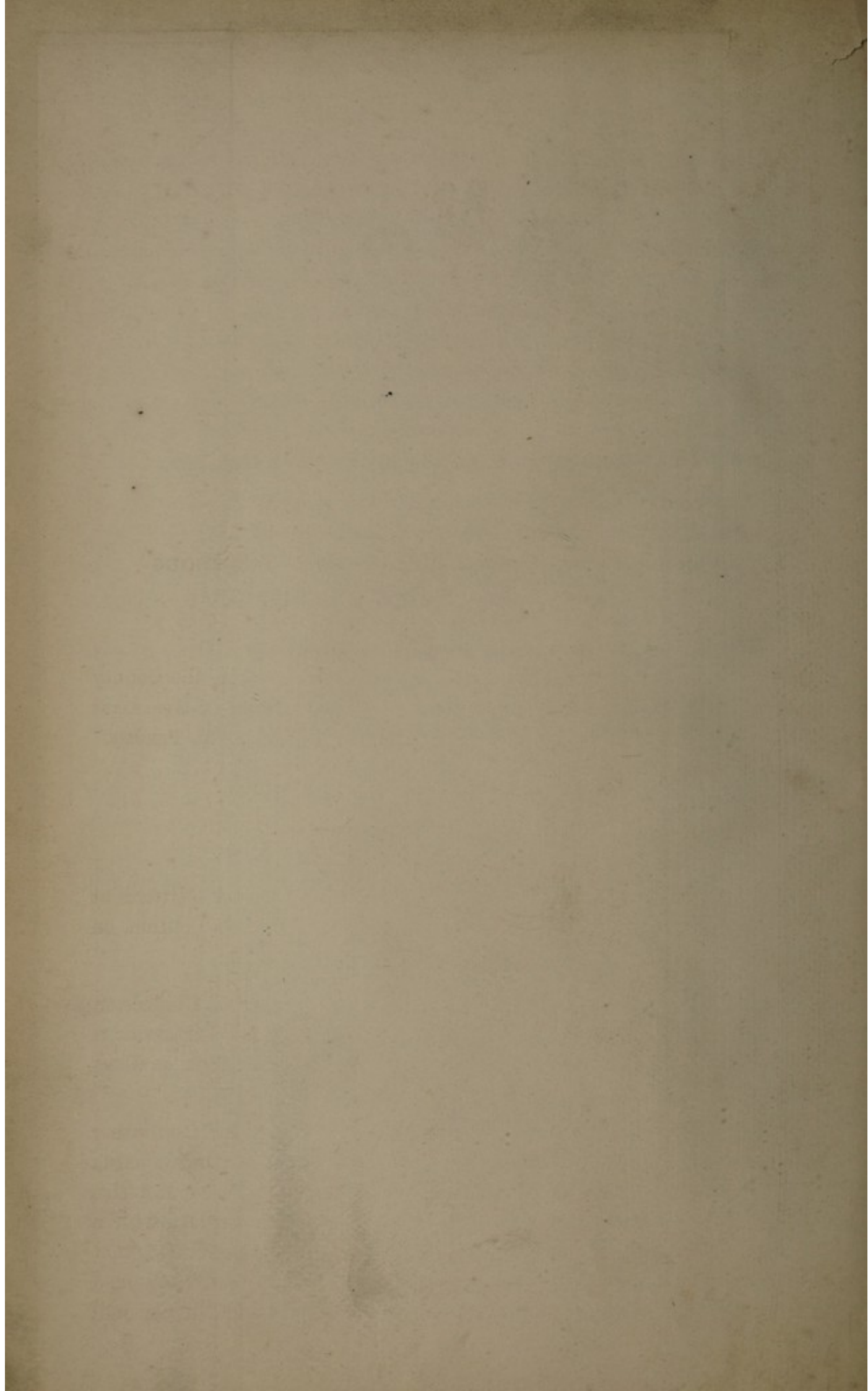
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A.D. 1868. MARCH 30. N<sup>o</sup> 1075.  
MITFORD'S SPECIFICATION.

FIG. 1.

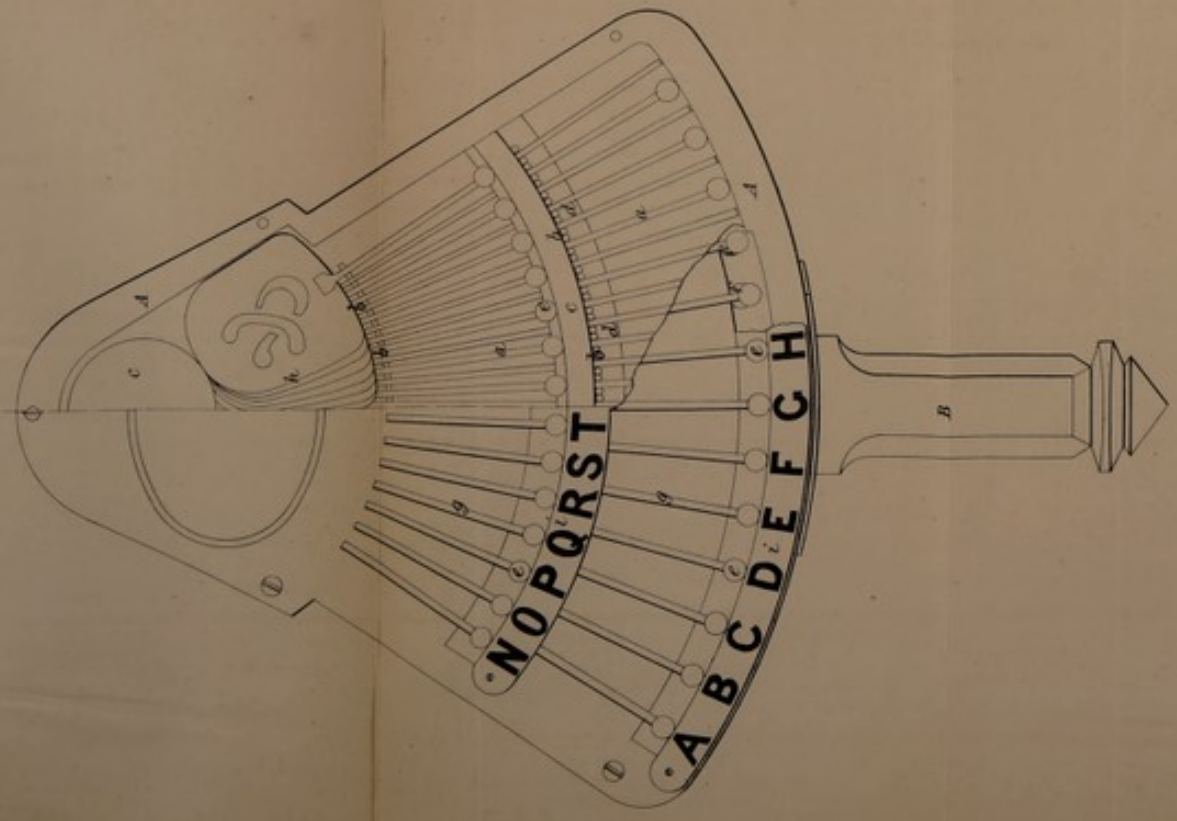


FIG. 2.

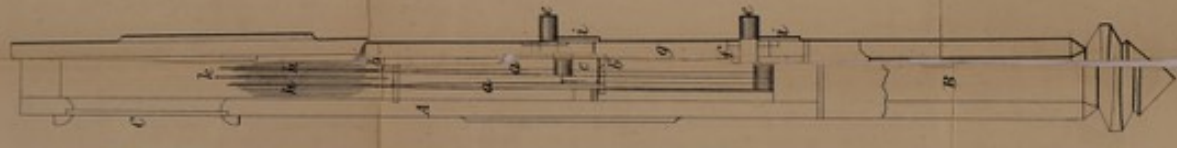
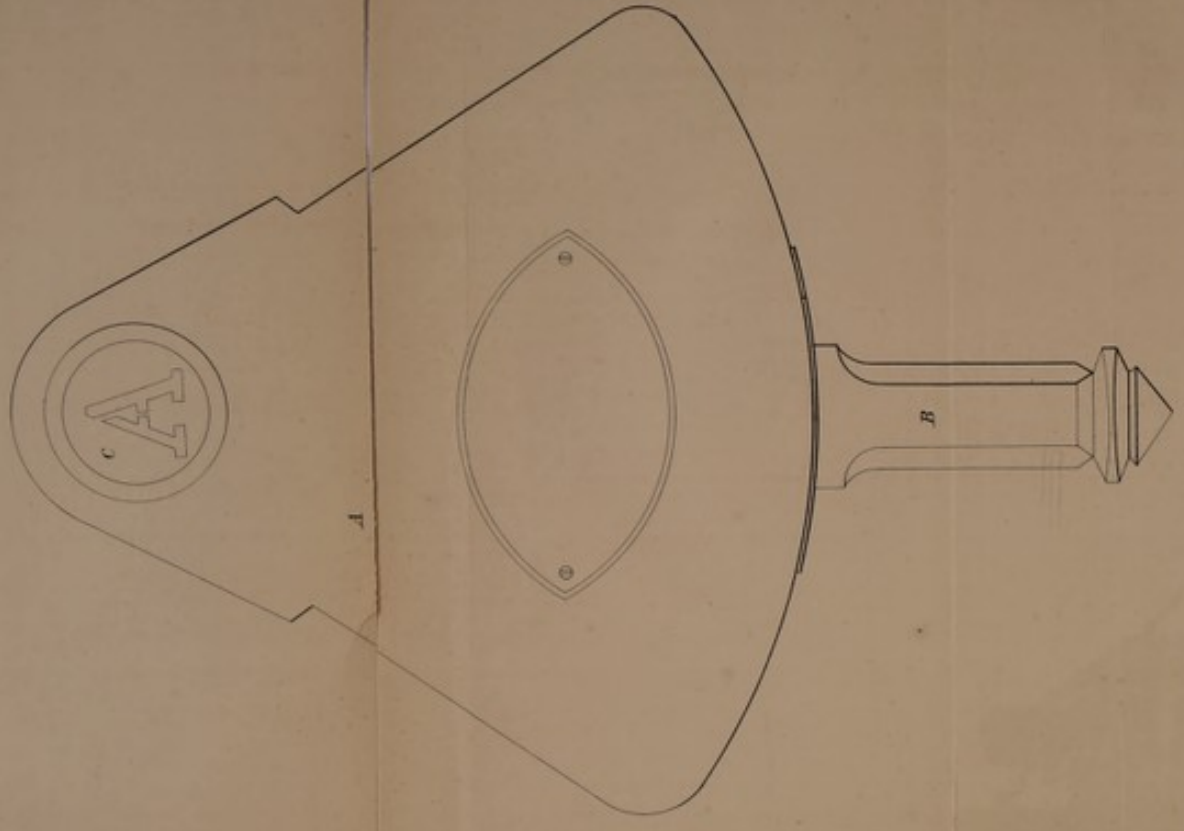


FIG. 3.



The filed drawing is partly colored.

LOWSON, Bunsell, Givens, E. most Excellent Majesty 1868.  
and Frye and William Sperrinwood, Printers to the Queen.

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