

# **Specification of Robert McTaggart and Joseph Holdforth : pill-making machine.**

## **Contributors**

McTaggart, Robert.  
Holdforth, Joseph.

## **Publication/Creation**

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Wellcome Collection  
183 Euston Road  
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A.D. 1866, *3rd NOVEMBER.* N<sup>o</sup> 2854.

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

OF

ROBERT M<sup>c</sup>TAGGART  
AND  
JOSEPH HOLDFORTH.

—  
PILL-MAKING MACHINE.  
—

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

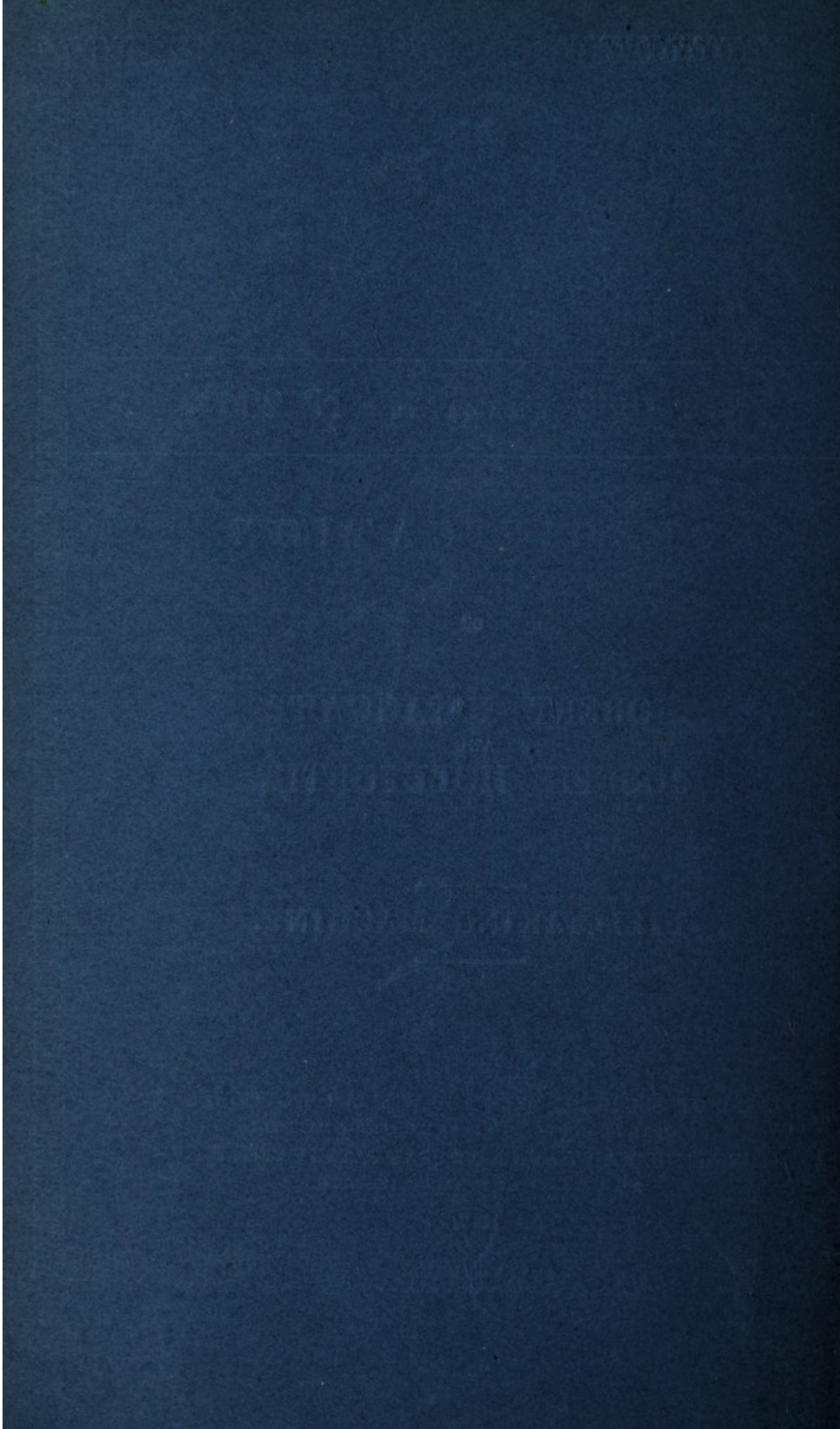
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

*Price 6d.*

1867.





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A.D. 1866, 3rd NOVEMBER. N° 2854.

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**Pill-making Machine.**

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**LETTERS PATENT** to Robert M<sup>c</sup>Taggart and Joseph Holdforth, both of Bradford, in the County of York, for the Invention of "**AN IMPROVED PILL-MAKING MACHINE.**"

Sealed the 26th April 1867, and dated the 3rd November 1866.

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**PROVISIONAL SPECIFICATION** left by the said Robert M<sup>c</sup>Taggart and Joseph Holdforth at the Office of the Commissioners of Patents, with their Petition, on the 3rd November 1866.

We, ROBERT M<sup>c</sup>TAGGART and JOSEPH HOLDFORTH, both of Bradford, in the  
5 County of York, do hereby declare the nature of the said Invention for  
"**AN IMPROVED PILL-MAKING MACHINE,**" to be as follows:—

The object of our Invention is to make pills from the pasty material  
when it is in the state of "mass." For this purpose on convenient side  
frames we mount a pair of rollers with longitudinal grooves extending from  
10 frame to frame, and of the diameter of, say one inch and three-quarters,  
more or less; within the same framework we also have a larger pair of  
rollers these latter having their grooves at right angles to the before-mentioned  
ones, both the two sets of rollers being actuated by winches with ordinary  
pinion gear (the two sets having no connection with each other).

15 The operation is as follows:—The "mass" is supplied to the longitudinally  
fluted rollers, and by them cut into rolls; after that it is passed through the  
other set of rollers, being laid transversely on the same, and there cut and  
formed into pills the required size, the width and depth of the grooves

*McTaggart & Holdforth's Improved Pill-making Machine.*

necessarily determining the size of the pills, which on passing through the second or latter set of rollers are allowed to drop upon a receiving sieve placed in connection with a receiving drawer in the lower part of the machine.

**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said Robert McTaggart and Joseph Holdforth in the Great Seal Patent Office on the 3rd May 1867. 5

**TO ALL TO WHOM THESE PRESENTS SHALL COME**, we, ROBERT MCTAGGART and JOSEPH HOLDFORTH, both of Bradford, in the County of York, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Third day of November, in the year of our Lord One thousand eight hundred and sixty-six, in the thirtieth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto us, the said Robert McTaggart and Joseph Holdforth, Her especial licence that we, the said Robert McTaggart and Joseph Holdforth, our executors, administrators, and assigns, or such others as we, the said Robert McTaggart and Joseph Holdforth, our executors, administrators, and assigns, should at any times agree with, and 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 Islands, and Isle of Man, an Invention for "**AN IMPROVED PILL-MAKING MACHINE**," upon the condition (amongst others) that we, the said Robert McTaggart and Joseph Holdforth, our executors or administrators, by an instrument in writing under our or their hands and seals, or under the hand and seal of one of us or them, should particularly describe and ascertain the nature of the said 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. 10  
15  
20  
25

**NOW KNOW YE**, that I, the said Joseph Holdforth, on behalf of myself and the said Robert McTaggart, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:—

The object of our Invention is to make pills from the pasty material when it is in the state of "mass." For this purpose on convenient side frames 35

*McTaggart & Holdforth's Improved Pill-making Machine.*

we mount a pair of rollers with longitudinal grooves extending from frame to frame, and of the diameter of, say, one inch and three quarters, more or less; within the same framework we also have a larger pair of rollers, these latter having their grooves at right angles to the before-mentioned ones, both the  
 5 two sets of rollers being actuated by winches with ordinary pinion gear (the two sets having no connection with each other).

The operation is as follows:—The “mass” is supplied to the longitudinally fluted rollers, and by them cut into “pipings” or rolls. After that it is passed through the other set of rollers, being laid transversely on the same, and there  
 10 cut and formed into pills the required size, the width and depth of the grooves necessarily determining the size of the pills, which on passing through the second or latter set of rollers are allowed to drop upon a receiving sieve placed in connection with a receiving drawer in the lower part of the machine.

Having now described the nature of our Invention we will proceed to  
 15 describe the manner in which the same is to be performed, reference being had to the accompanying Drawing and to the letters and figures of reference marked thereon, that is to say:—

The said Figure 1 represents a side elevation of a pill-making machine constructed according to our Invention; and Figure 2 represents a detail of  
 20 the said machine herein-after referred to.

A is the frame, and B is the base of the machine; C<sup>1</sup>, C<sup>2</sup>, are cylindrical rollers, having semicircular flutes (indicated in dotted lines) on their peripheries in a direction parallel to the axes c<sup>1</sup>, c<sup>2</sup>, of the said rollers, these axes turn in bearings in the frame of the machine, and are geared together by toothed  
 25 wheels c<sup>3</sup>, c<sup>4</sup>; motion is communicated to the axes c<sup>1</sup>, c<sup>2</sup>, by means either of a handle c<sup>5</sup> or of a band pulley affixed to one of the said axes. D<sup>1</sup>, D<sup>2</sup>, are cylindrical rollers, having semicircular grooves formed around them, as indicated by dotted lines, that is to say, the direction of the said grooves is at right angles to the axes d<sup>1</sup>, d<sup>2</sup>, of the said rollers. The axes d<sup>1</sup>, d<sup>2</sup>, turn in  
 30 bearings in the frame of the machine, and carry respectively a toothed wheel d<sup>3</sup> and pinion d<sup>4</sup>, which are geared together by means of an intermediate toothed wheel E, mounted on an axis e turning in bearings in the frame of the machine; motion is communicated to the axes d<sup>1</sup>, d<sup>2</sup>, and e, by means either of a handle d<sup>5</sup> or of a band pulley affixed to the axis d<sup>1</sup>. F is an inclined sieve  
 35 or guide, down which the pills when made pass from the machine; B<sup>1</sup> is a drawer, in which the manufactured pills may be received; f is a bar (shown separately in Figure 2), the upper surface of which corresponds in shape with the grooves in the roller D<sup>2</sup> so as to clear them from any adhering “pill mass.”

The action of the machine is as follows:—“Pill mass” of a stiff con-

*McTaggart & Holdforth's Improved Pill-making Machine.*

sistency is first passed between the rollers C<sup>1</sup>, C<sup>2</sup>, and is by them formed into cylindrical bars or "pipings;" these bars or "pipings" are then dropped one by one between the rollers D<sup>1</sup>, D<sup>2</sup>, (as indicated by the dotted circle), the said bars as they are dropped being parallel to the axes of the said rollers; as the said bars pass between the grooved surfaces of the said rollers the edges of the grooves cut and form the said bars into pills, which drop on to the inclined sieve or guide, and pass down it either out of the machine, and are received in the drawer B<sup>1</sup>, or in any other receptacles. Instead of mounting the rollers C<sup>1</sup>, C<sup>2</sup>, as shown, they may be mounted over the rollers D<sup>1</sup>, D<sup>2</sup>, so that the bars or pipings cut by the former may drop directly thereupon between the latter, the respective speeds of the two sets of rollers being adjusted as required by means of suitable gearing.

Having now described the nature of our Invention, and the manner in which the same is to be performed, we wish it to be understood that we do not limit ourselves to the precise details herein-before described and illustrated, as the same may be varied without departing from the nature of our said Invention; but we claim as our Invention an improved pill-making machine in which the pills are first cut into bars or pipings by two pairs of rollers, one of which forms the pill mass into bars or pipings, and the other forms the said bars or pipings into pills, essentially in the manner herein-before described and illustrated in the accompanying Drawing.

In witness whereof, I, the said Joseph Holdforth, have hereunto set my hand and seal, this Third day of May, in the year of our Lord One thousand eight hundred and sixty-seven.

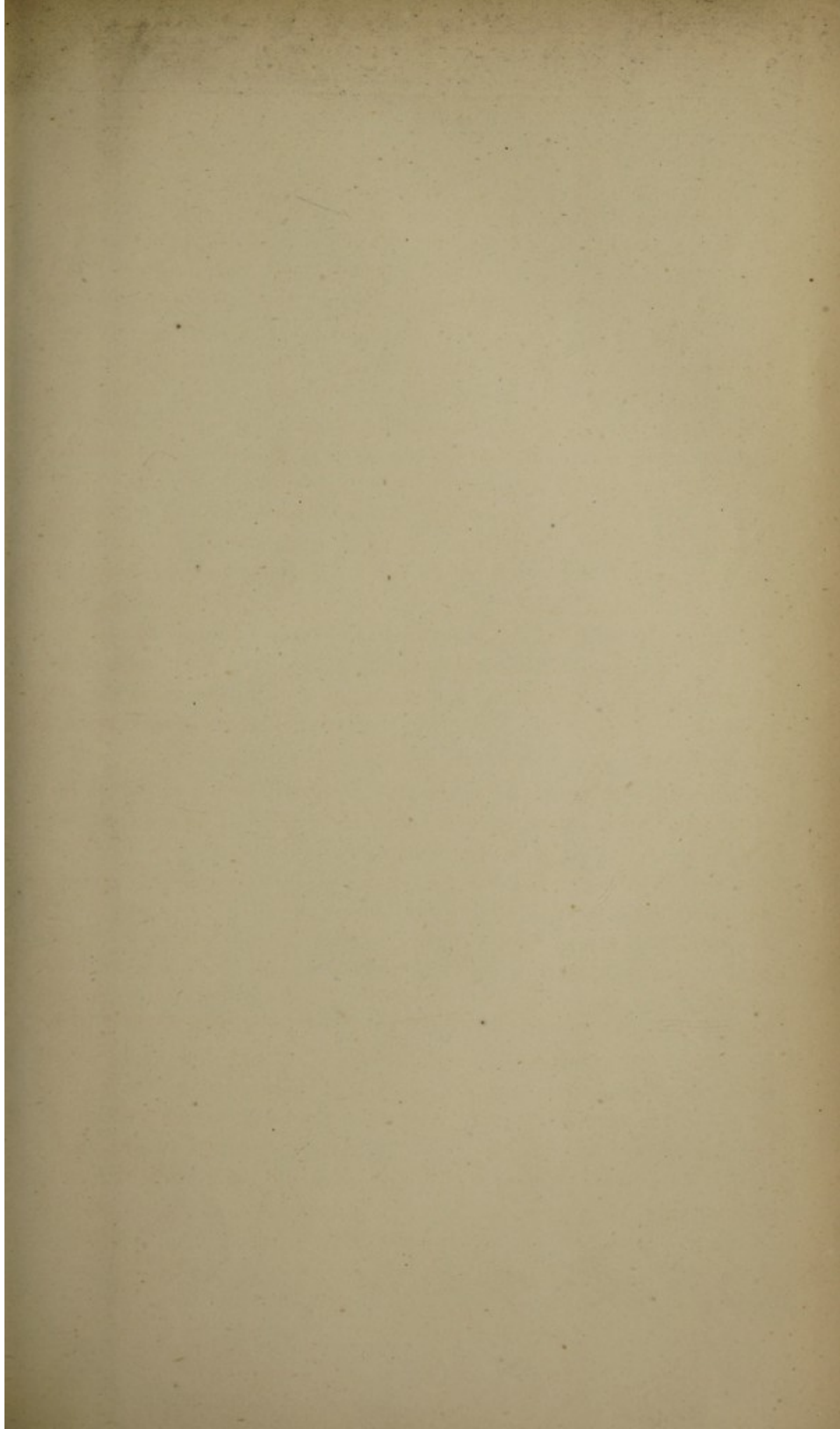
JOSEPH HOLDFORTH. (L.S.) 25

Witness,

H. H. MURDOCH,  
7, Staple Inn.

LONDON:

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Printers to the Queen's most Excellent Majesty. 1867.





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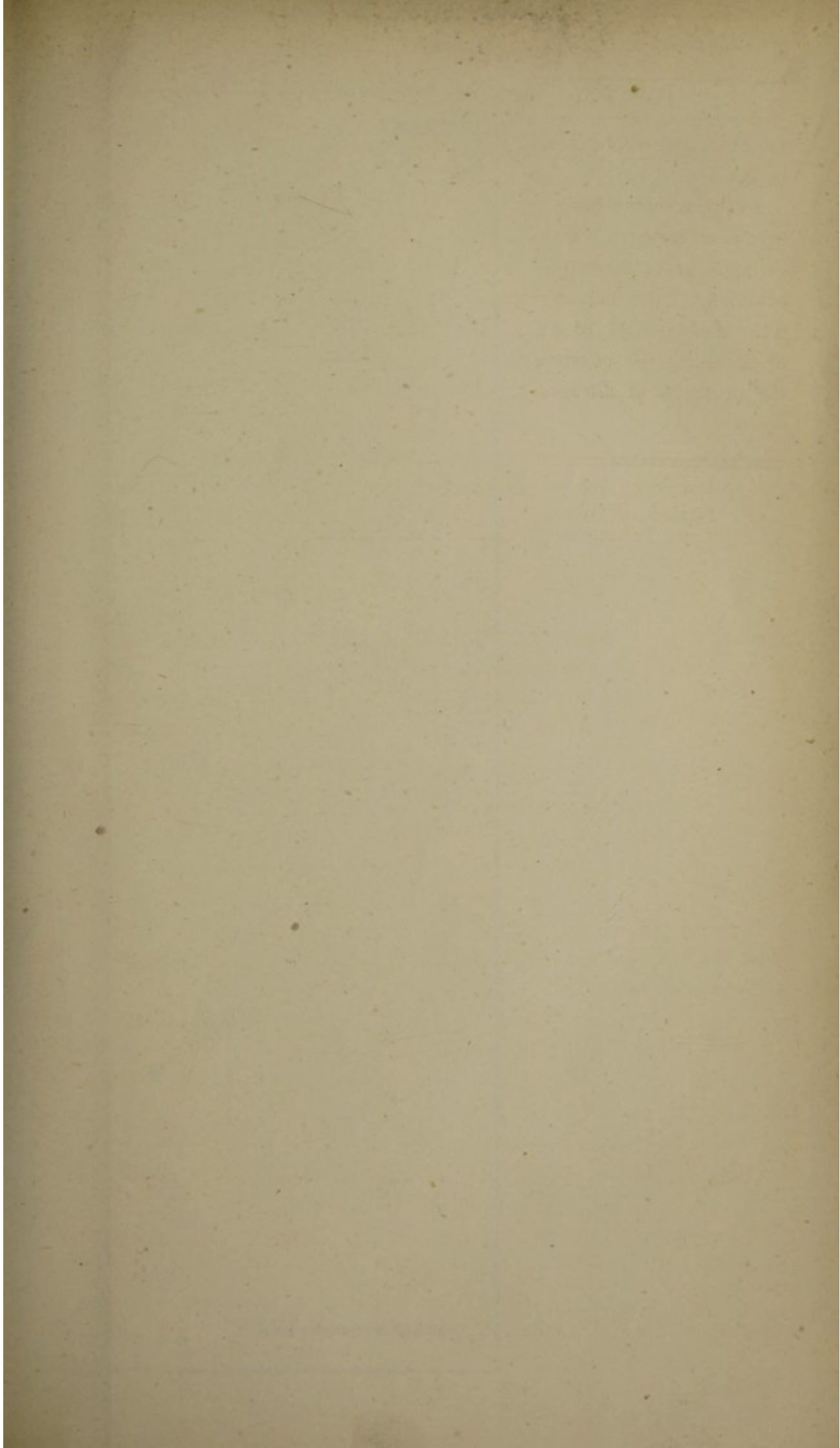
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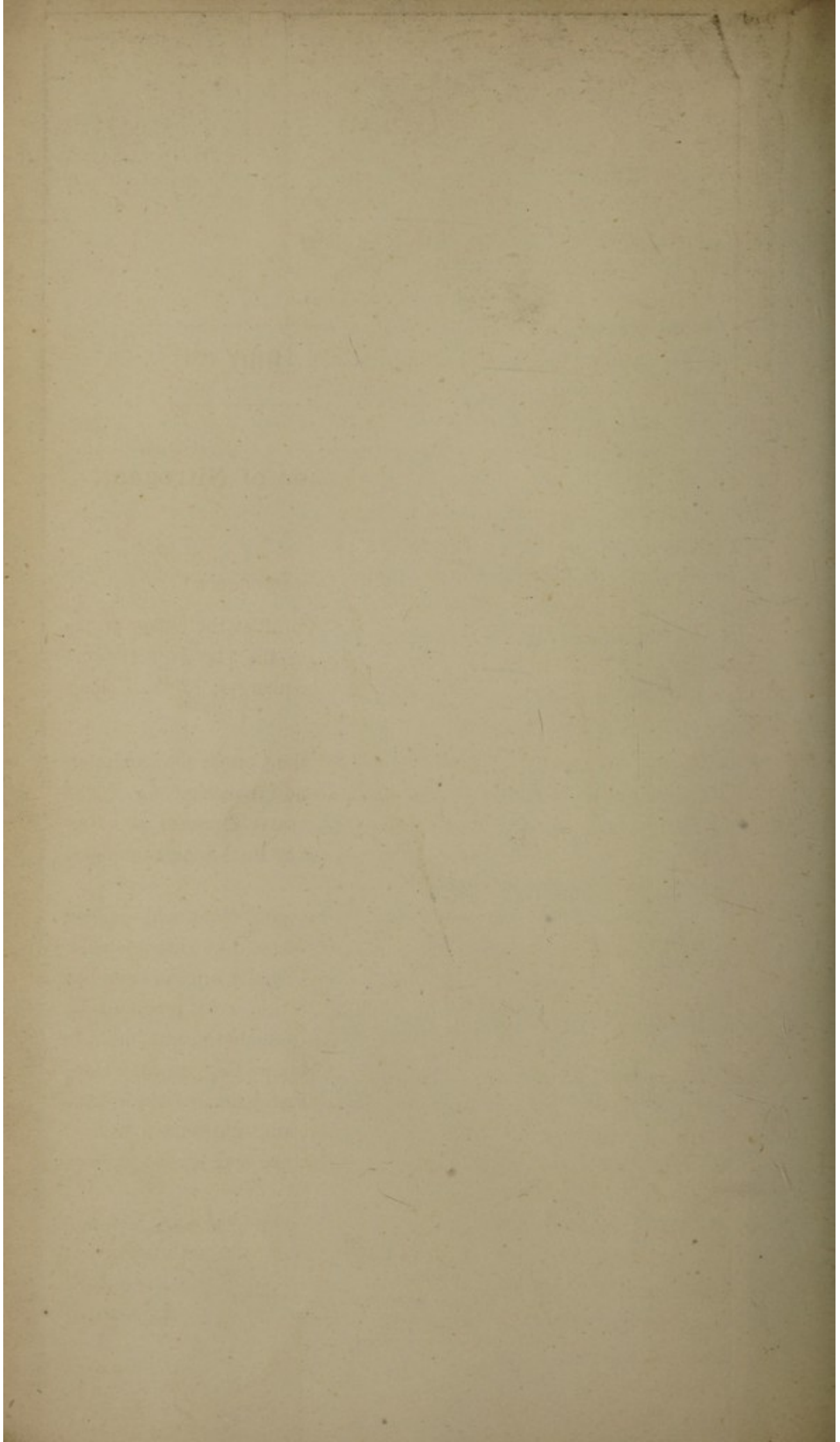
1871

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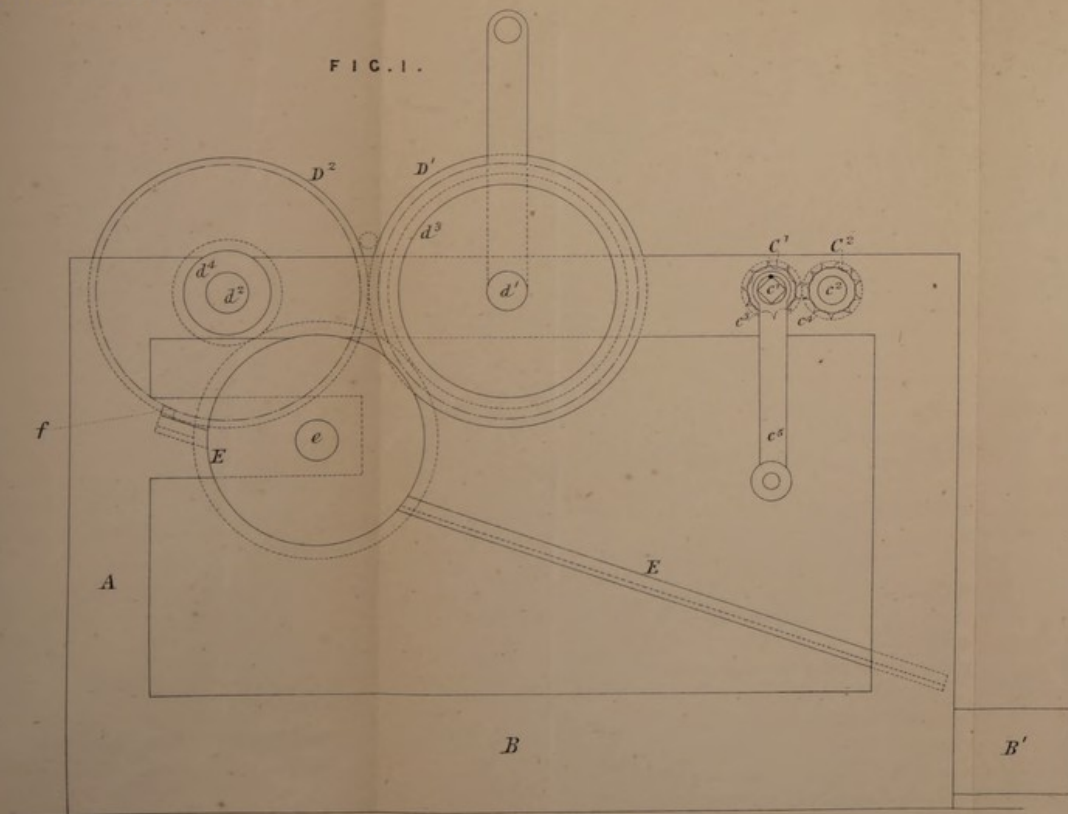


FIG. 2.



*The filed drawing is partly colored.*

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