

(No Model.)

F. D. HADDON & A. A. KUENEMANN.  
MACHINERY FOR PRINTING ON FABRICS.

No. 581,202.

Patented Apr. 20, 1897.

FIG. 1.

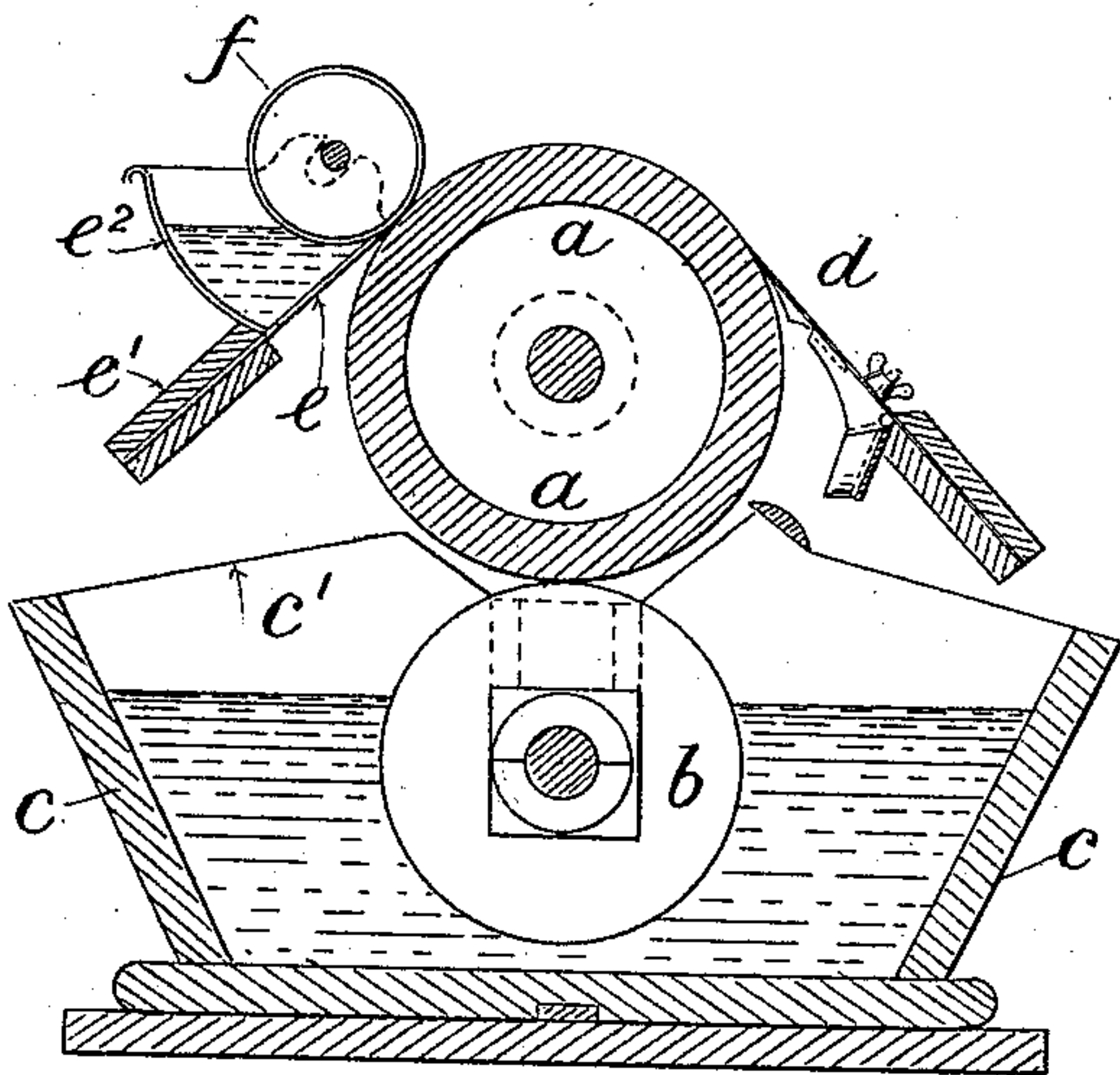


FIG. 3.

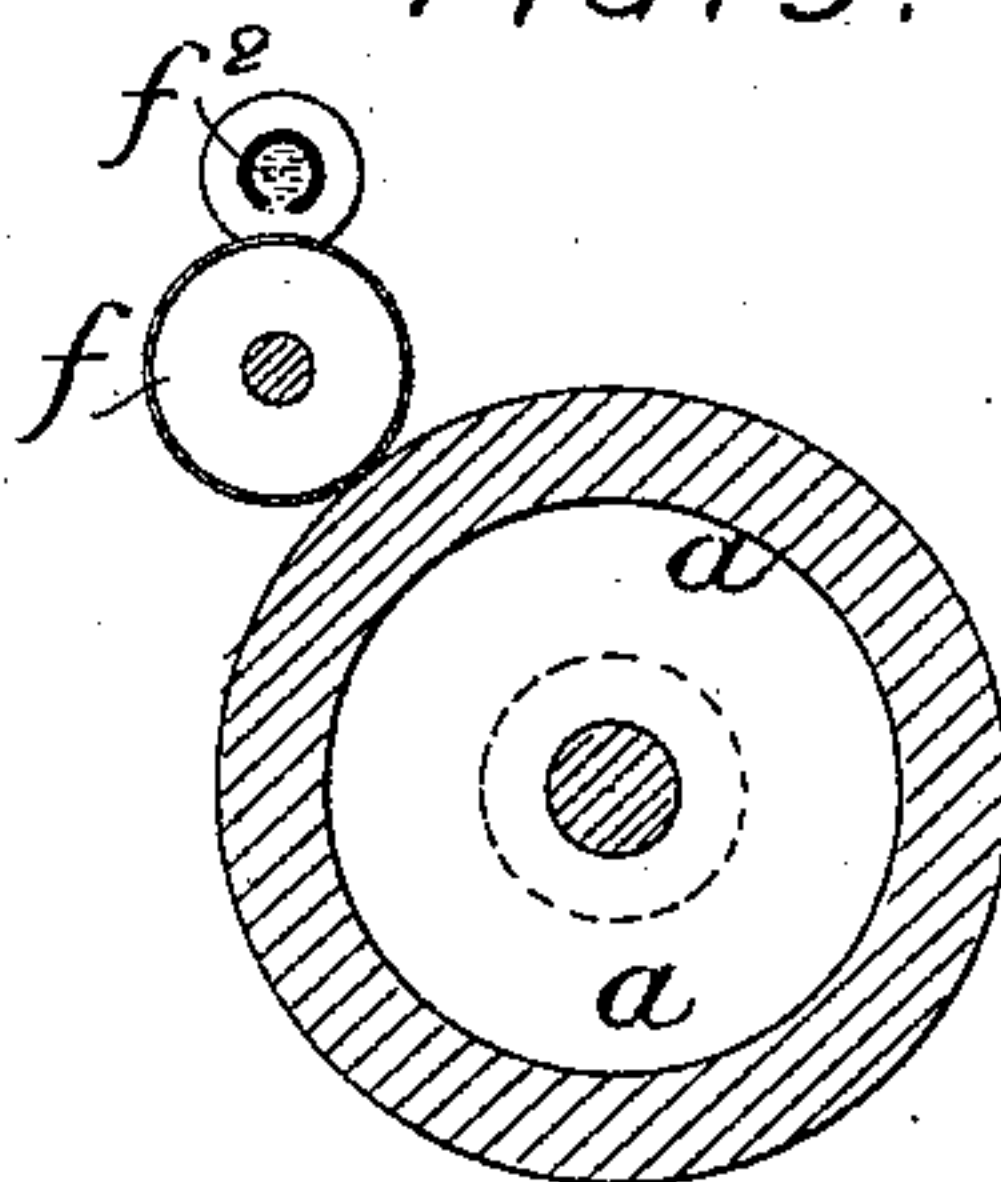


FIG. 4.

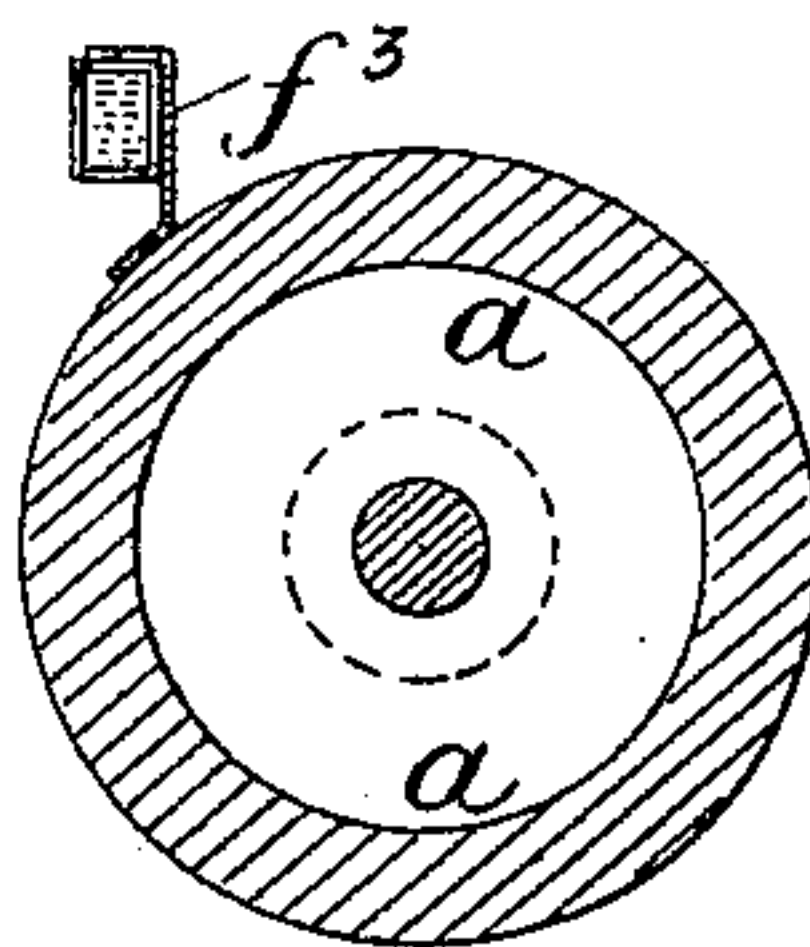
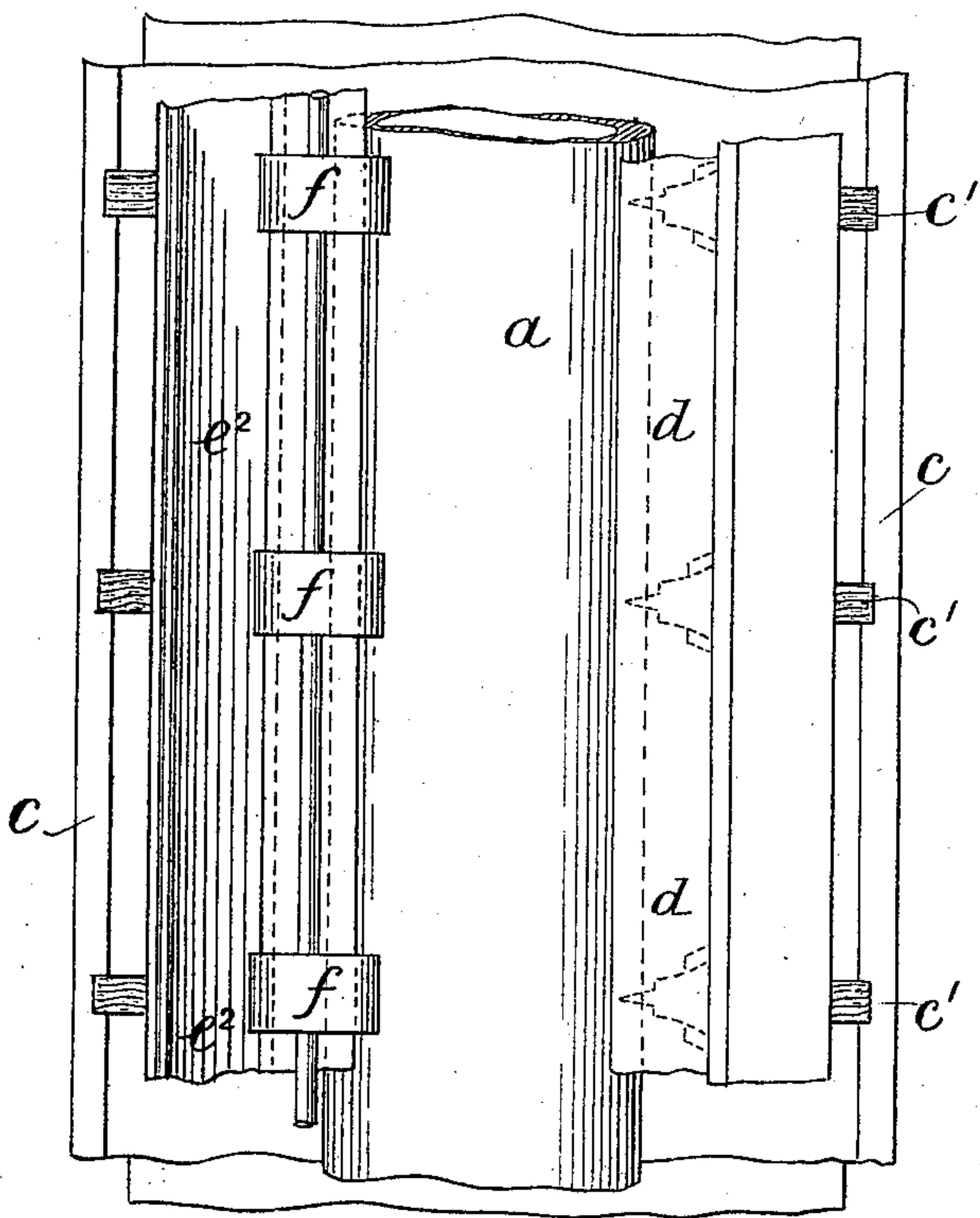


FIG. 2.



WITNESSES  
F. W. Wright.  
A. C. Connor

INVENTORS  
F. D. Haddon & A. A. Kuennemann.  
BY  
Horton and Horton  
THEIR ATTORNEYS



# UNITED STATES PATENT OFFICE.

FRANK D. HADDON, OF ROMILEY, AND ALBERT ARTHUR KUENEMANN, OF MANCHESTER, ENGLAND.

## MACHINERY FOR PRINTING ON FABRICS.

SPECIFICATION forming part of Letters Patent No. 581,202, dated April 20, 1897.

Application filed September 1, 1896. Serial No. 604,543. (No model.)

*To all whom it may concern*

Be it known that we, FRANK DANIEL HADDON, of Romiley, in the county of Chester, and ALBERT ARTHUR KUENEMANN, of Manchester, in the county of Lancaster, England, subjects of the Queen of Great Britain, have invented new and useful Improvements in or Applicable to Machinery for Printing on Fabrics, of which the following is a specification.

This invention is designed for use in such printing-machines as are fitted with means for furnishing different colors to various parts of the same engraved printing-roller, the object of the invention being to prevent any particles of color from caking upon the engraved roller at those parts where it is not kept moist by the color-furnisher and from passing beneath the color-doctor and coming into contact with the fabric to be printed and thus spoiling the same.

Our invention will be readily understood on reference to the accompanying drawings, in which we have illustrated our invention as being applied to a construction of printing-machine with separated furnishers, such as forms the subject of another application filed by us March 10, 1896, Serial No. 582,595, but we wish it to be understood that our present invention may be applied to many different constructions of printing-machines in which different colors are furnished to the engraved roller.

In the present drawings, Figure 1 is a sectional elevation, and Fig. 2 a plan, of a part of an engraved roller furnished from a divided color-trough with our moistening apparatus applied thereto. Figs. 3 and 4 illustrate modified forms of the moistener.

*a* is the engraved roller; *b*, the furnisher, shown as a roller.

*c* is the color-trough, divided into compartments by the plates *c'*.

*d* is the color-doctor.

*e* is the lint-doctor.

We fix on the "lint-doctor shears" *e'* a long trough *e<sup>2</sup>*, and the lint-doctor *e* may be used as the under side of the trough *e<sup>2</sup>*. In this is mounted (so as to be capable of revolving) a roller *f*, of iron or other metal, coated with a soft pliable material or composition and so fixed at each end of the trough as to be partly

within the said trough and parallel with the surface thereof and partly projecting and in contact with the said engraved roller *a* just above the line of meeting of the lint-doctor *e* with the engraved surface, so that the said covered or coated roller *f* will revolve by friction of contact with the engraved printing-roller.

The covered roller may be parallel throughout its length, so as to touch the printing-roller from end to end, so as to moisten and cool the whole printing-roller, or it may be cut away at parts, as shown, so as only to be in contact with the engraved roller at those parts where the color-furnishing rollers do not touch, and thus moisten and cool only the required portions thereof.

The trough is to contain water or other suitable liquid and will be kept full to such a level that the lower portion of the covered roller *f* will dip therein and constantly feed such moisture to the surface of the printing-roller *a*, in contact with which it revolves, or, if preferred, the covered roller may revolve above the level of the water or liquid in the trough and be supplied therewith by means of a small furnishing-roller revolving in the water or liquid and in contact with the soft-coated roller, or in any other convenient manner. For example, the roller may be supplied at the desired points with liquids by means of a pipe *f<sup>2</sup>* or trough having suitable perforations therein. (See Fig. 3.)

In place of the soft-coated roller above described we may in some cases use a fixed bar provided with a strip or a series of strips of some soft or spongy material *f<sup>3</sup>*, (see Fig. 4,) one edge of which slightly presses on the surface of the engraved printing-roller, and water or liquid may be supplied to such strip by a revolving roller or otherwise, so as to dampen and cool the printing-roller as it revolves in contact with the strip; or the moisture may be applied to the desired parts of the engraved roller by allowing it to drip in very limited quantities upon such parts or supplying it by other equivalent means.

The roller *f* and trough *e<sup>2</sup>* or the other moistening device may be separate from the lint-doctor and either above or below the same.

We claim as our invention—

The combination with an engraved roller  
furnished by separated furnishers with va-  
rious colors of means for moistening and cool-  
ing those parts of the said engraved roller  
5 not kept moist by the furnishing apparatus,  
substantially as and for the purpose herein-  
before set forth.

In testimony whereof we have signed our

names to this specification in the presence of  
two subscribing witnesses.

FRANK D. HADDON.

ALBERT ARTHUR KUENEMANN.

Witnesses:

CHARLES A. DAVIES,

JNO. HUGHES.