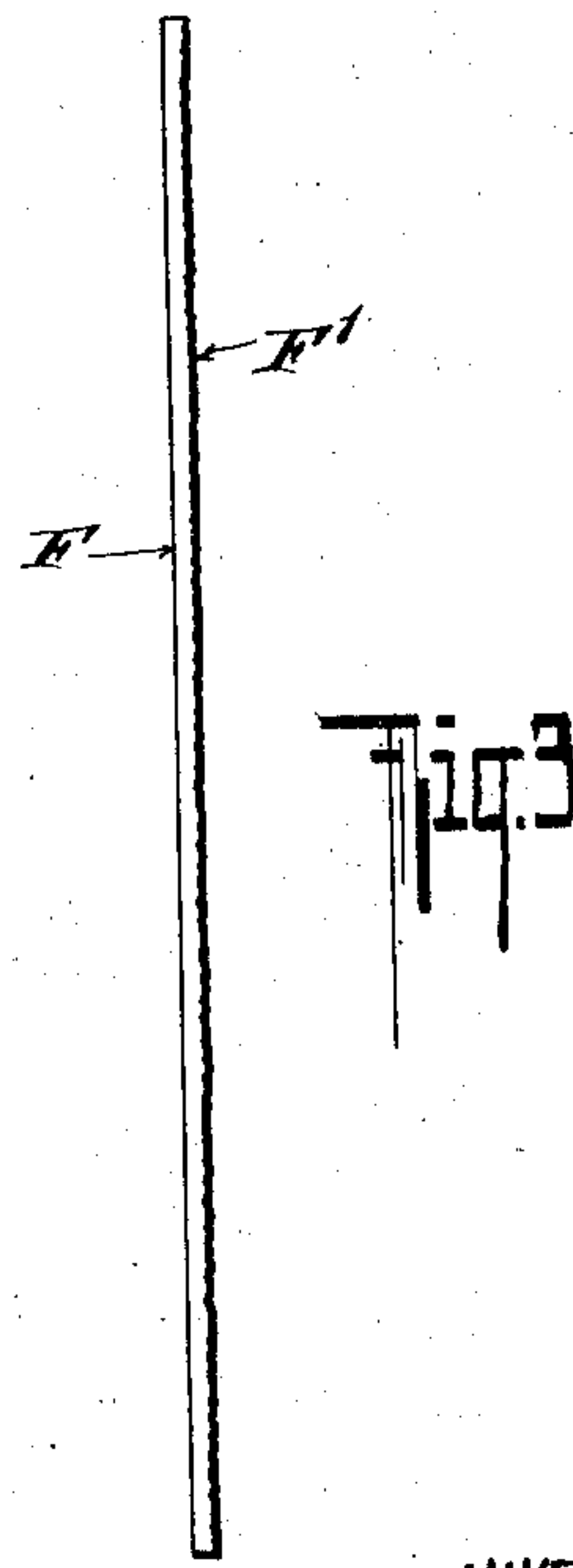
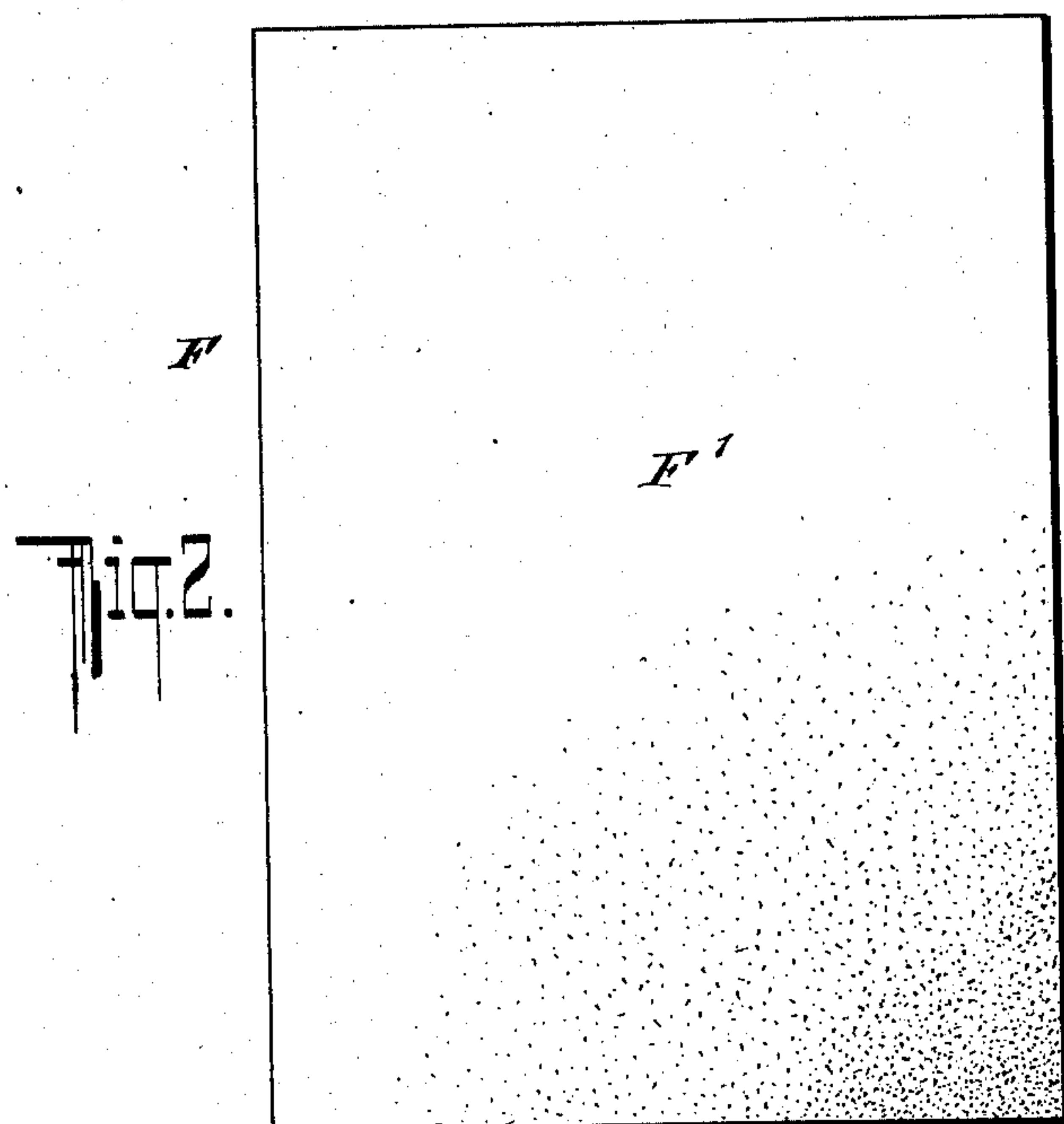
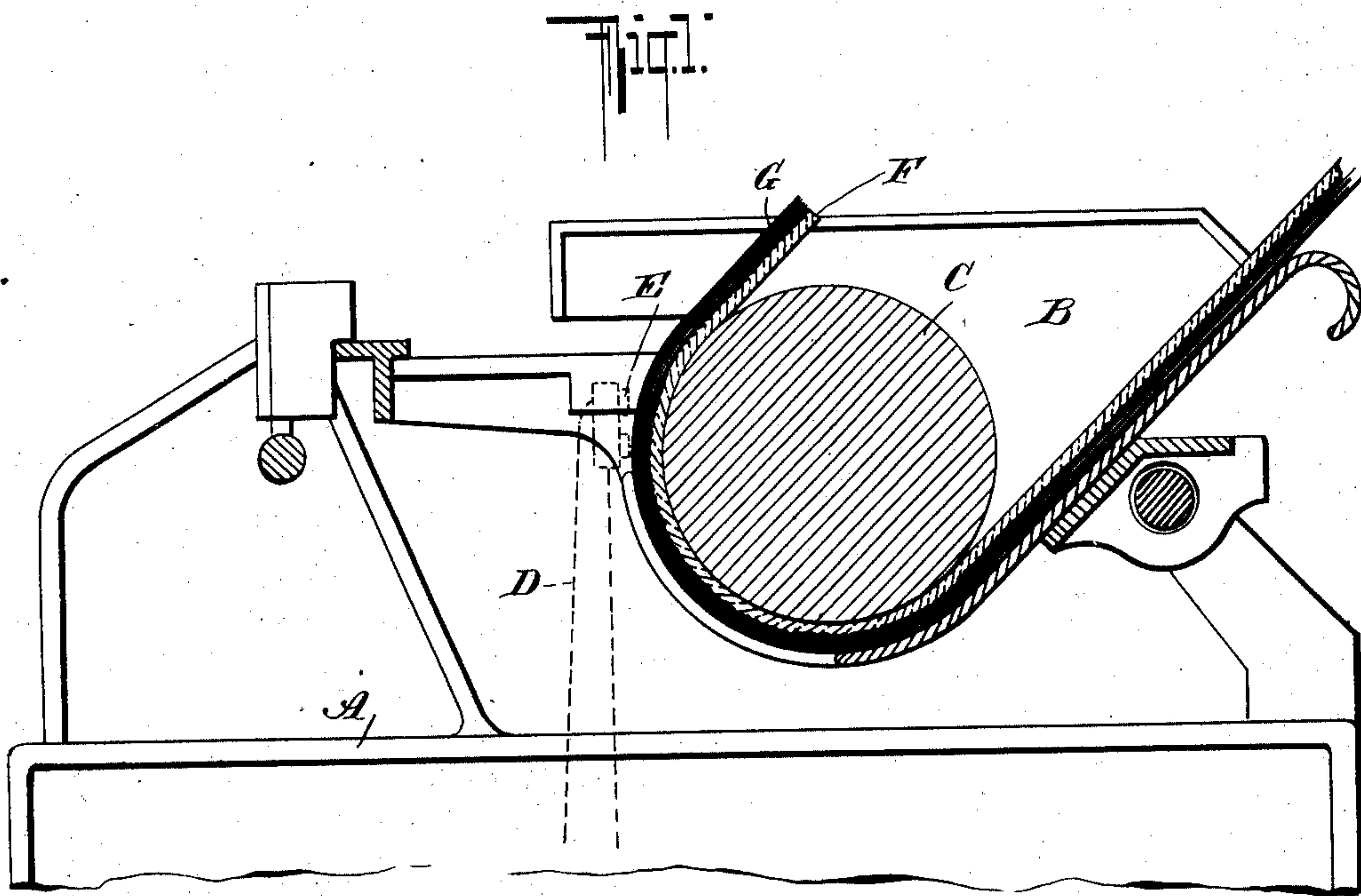


No. 864,987.

PATENTED SEPT. 3, 1907.

J. I. PORTER.
ATTACHMENT FOR TYPE WRITERS.
APPLICATION FILED JUNE 28, 1906.



WITNESSES
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JOSEPH I. PORTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-THIRD TO CHARLES H. SCHOTT AND ONE-THIRD TO ALBERT P. KUCK.

ATTACHMENT FOR TYPE-WRITERS.

No. 864,987.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed June 28, 1906. Serial No. 323,759.

To all whom it may concern:

Be it known that I, JOSEPH I. PORTER, a citizen of the United States, and a resident of Washington, District of Columbia, have invented certain new and useful Improvements in Attachments for Type-Writers, of which the following is a specification.

My invention relates to typewriting machines and has for its object to provide an attachment for machines of this description whereby it will be possible to make a large number of clear and legible carbon copies at the time of writing the original.

My invention will be fully described hereinafter and the features of novelty will be pointed out in the appended claims.

Reference is to be had to the accompanying drawings in which

Figure 1 is a sectional view of as much of a typewriting machine as is necessary to illustrate my invention, with my attachment added thereto; Fig. 2 is a face view of my attachment and Fig. 3 is a section view thereof in line 3—3 of Fig. 2.

A represents the frame of a typewriting machine which has the usual traveling carriage B on which is mounted the rotatable platen C.

D is one of the type bars which carries the type E and is operated by the usual keys which I have not deemed it necessary to show.

The platen C is usually made of a rubber composition, the surface of which is not hard enough to prevent a perfect foundation when it is desired to make a number of carbon copies of an original, so that the lowermost copies are usually blurred and indistinct. In order to overcome this objection I introduce a sheet of celluloid or like material F between the paper G and the platen C. This sheet of celluloid may be of any suitable size but is preferably the same in size as the paper to be written upon. To prevent the paper G from slipping relatively to said celluloid sheet F, the surface thereof which is engaged by the paper may be roughened as shown at F'. If desired both surfaces may be roughened so that the danger of the sheet F slipping relatively to the platen is also obviated.

In use the paper with the carbon sheets between each two sheets thereof is laid on the celluloid sheet F and then introduced in position on the machine in the usual way. The said sheet F thus presents a hard surface as a foundation for the paper, which results in clear and legible impressions being obtained from the type. All carbon copies are therefore clear and legible even to

the one which is nearest the sheet F and farthest from the type.

Various modifications may be made without departing from the nature of my invention as defined in the claims.

I claim:

1. The method of making a plurality of impressions at one stroke of a typewriter key, which consists in placing upon a flexible sheet of material harder than the surface of the platen of the typewriter a sheet of writing paper, and upon this a series of alternate sheets of carbon paper and of writing paper, and then placing all the sheets around a platen, with the sheet of hard flexible material contiguous to such platen, and then printing upon the outermost sheet of paper in the usual manner, substantially as and for the purpose described.

2. The combination with a resilient platen, of a flexible sheet of material harder than the surface of the platen adapted readily to be introduced between the platen and a series of alternate sheets of writing paper and of carbon paper simultaneously with the insertion of such series into the machine, so as to form a hard foundation for the paper, and to be readily removed simultaneously with the removal of such series from the machine, substantially as described.

3. The combination, with a resilient platen of a flexible sheet of material harder than the surface of the platen adapted readily to be introduced between the platen and a series of alternate sheets of writing paper and of carbon paper simultaneously with the insertion of such series into the machine, so as to form a hard foundation for the paper, and to be readily removed simultaneously with the removal of such series from the machine, said flexible sheet of hard material being roughened on its outer surface to prevent the slipping of the paper engaging it, substantially as described.

4. The combination, with a resilient platen of a flexible sheet of material harder than the surface of the platen adapted readily to be introduced between the platen and a series of alternate sheets of writing paper and of carbon paper simultaneously with the insertion of such series into the machine, and to be readily removed simultaneously with the removal of such series from the machine, said flexible sheet of hard material being roughened on both surfaces, substantially as and for the purpose described.

5. The combination, with a resilient platen of a flexible sheet of celluloid, the width of which corresponds to the length of the platen and the length of which corresponds to the length of the carbon paper which is used in manifolding work upon such platen, such sheet of celluloid being adapted to be inserted and removed simultaneously with the insertion and removal of a series of alternate sheets of writing paper and of carbon paper, substantially as and for the purpose described.

6. The combination, with a resilient platen of a flexible sheet of celluloid, the width of which corresponds to the length of the platen, and the length of which corresponds to the length of the carbon paper which is used in manifolding work upon the platen, such sheet of celluloid being

roughened on one surface, and being adapted to be inserted and removed simultaneously with the insertion and removal of a series of alternate sheets of writing paper and of carbon paper, substantially as and for the purpose described.

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7. The combination, with a resilient platen of a flexible sheet of celluloid, the width of which corresponds to the length of the platen, and the length of which corresponds to the length of the carbon paper which is used in manifolding work upon such platen, such sheet of celluloid being roughened on both surfaces, and being adapted to be
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inserted and removed simultaneously with the insertion and removal of a series of alternate sheets of writing paper and of carbon paper, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

JOS. I. PORTER.

Witnesses:

HOWELL BARTLE,
E. L. KENGLA.