

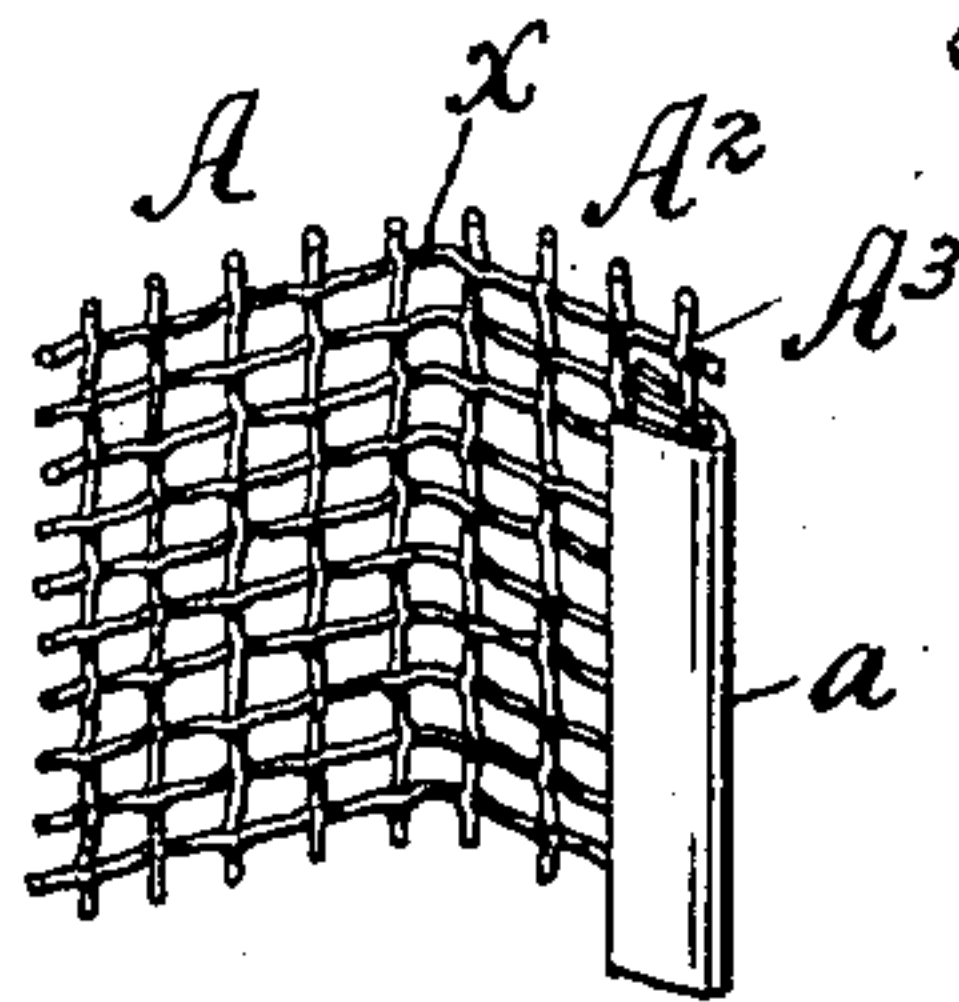
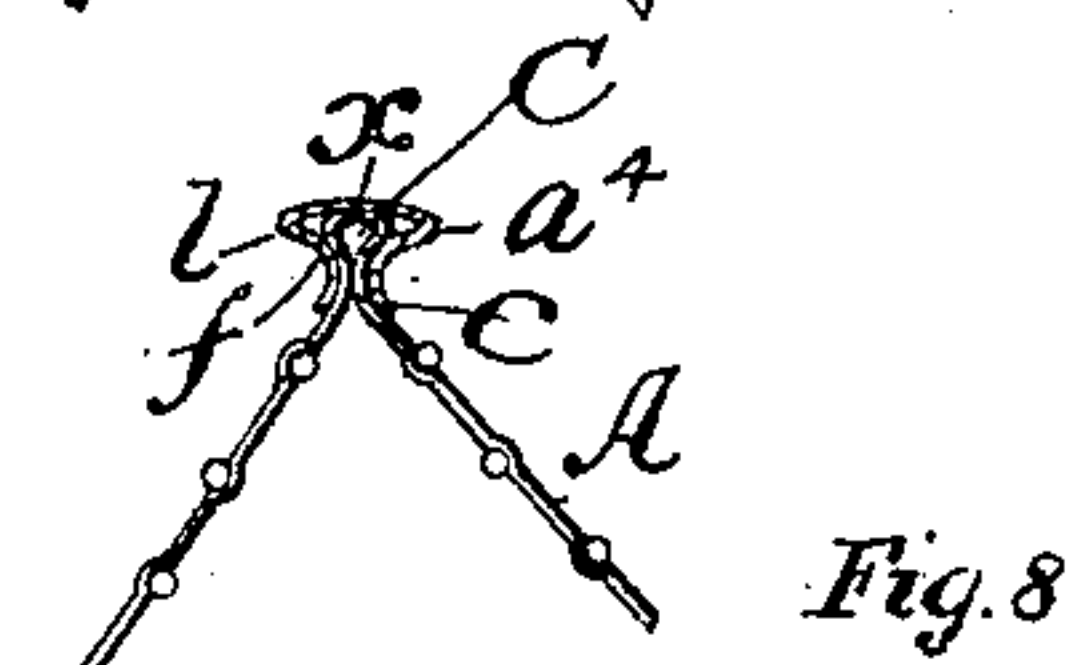
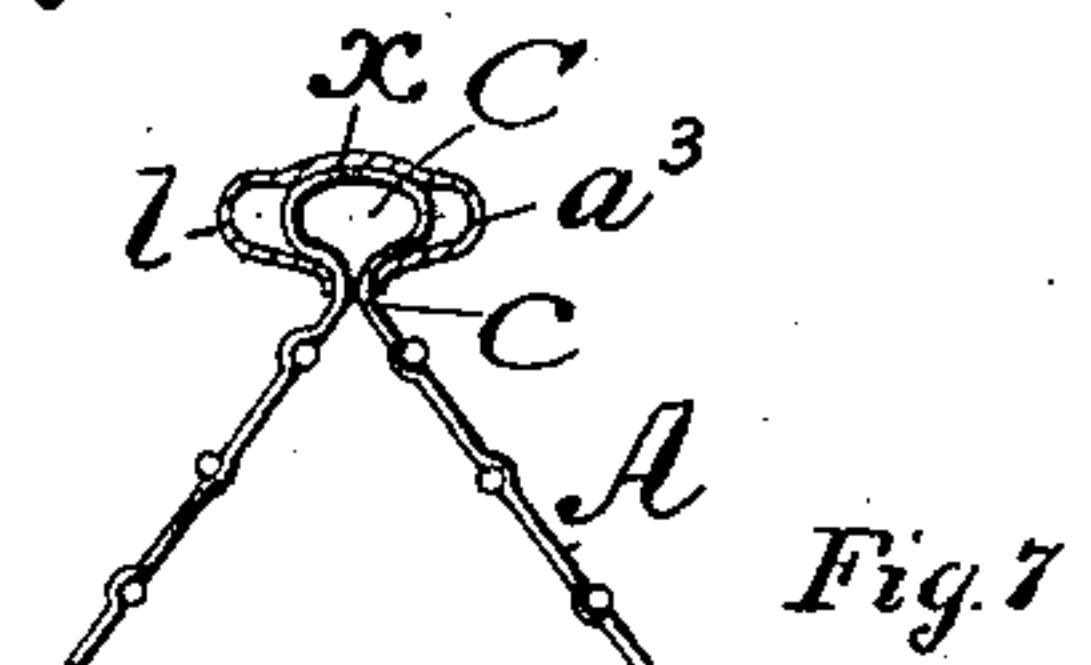
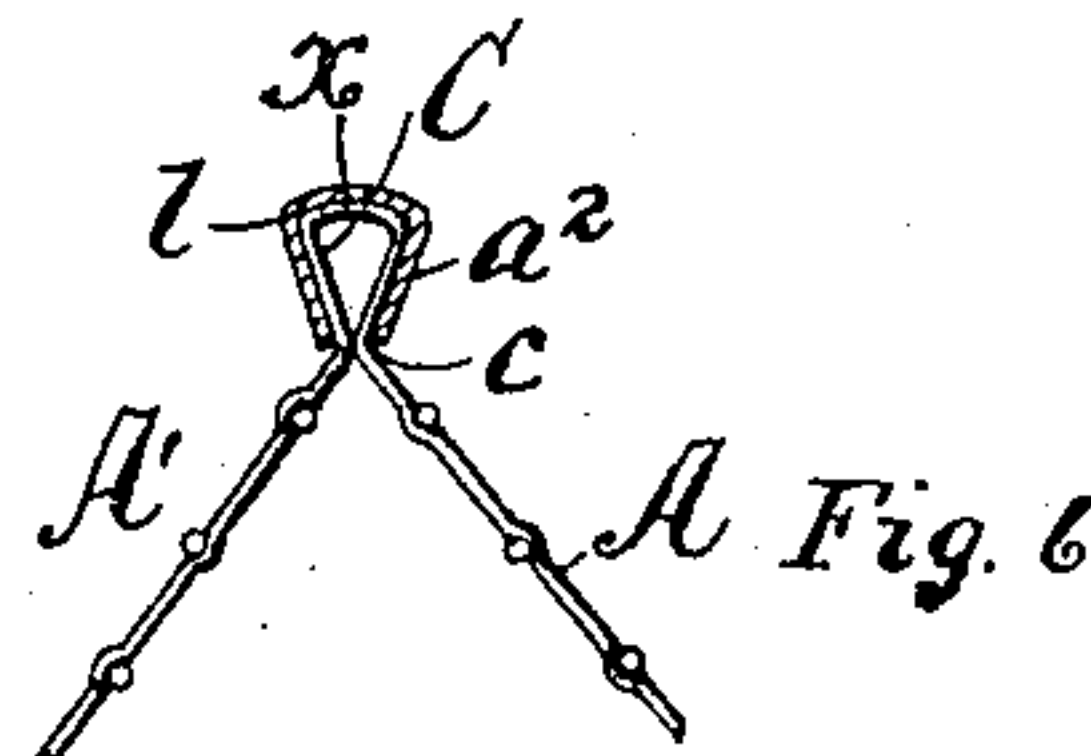
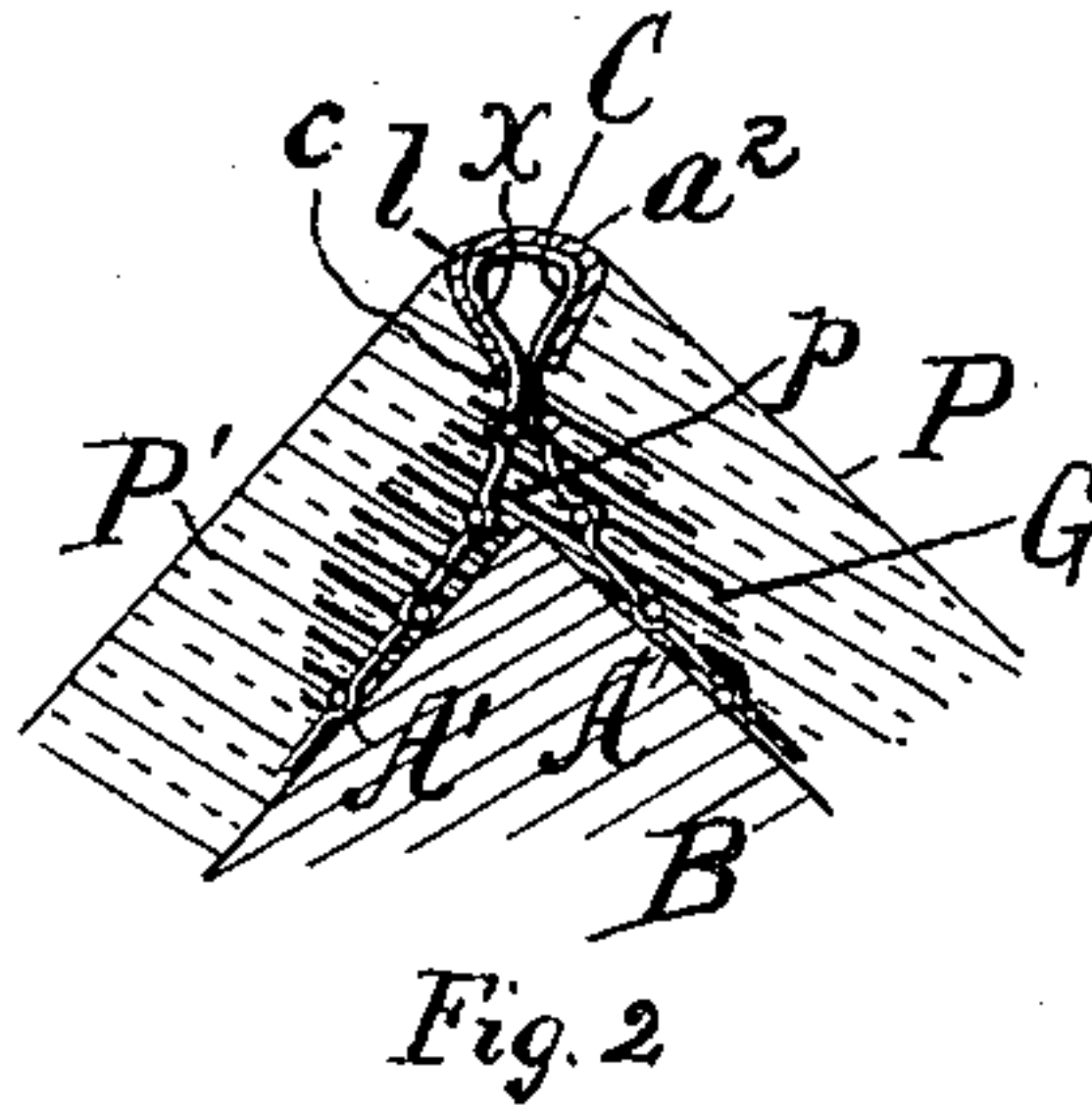
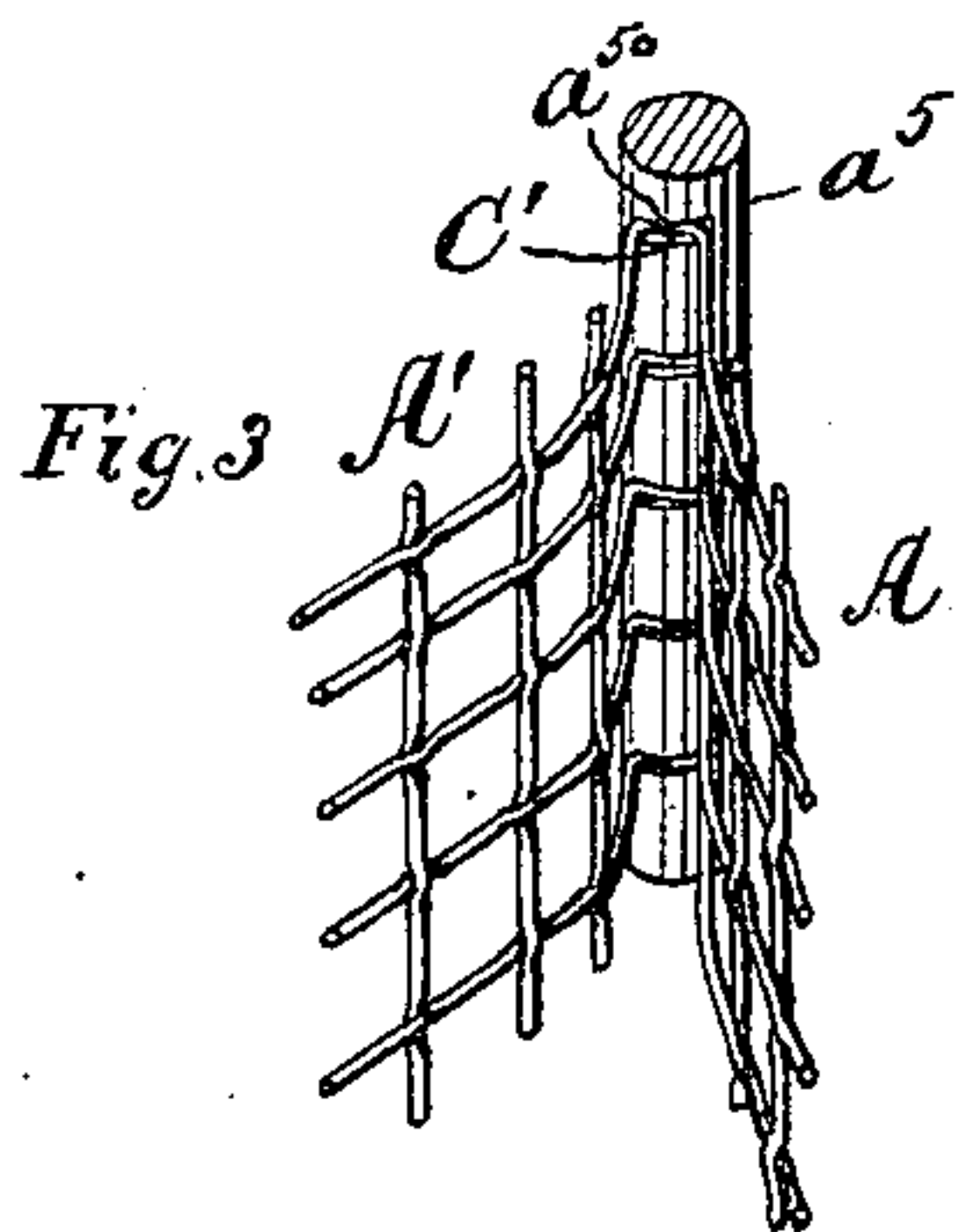
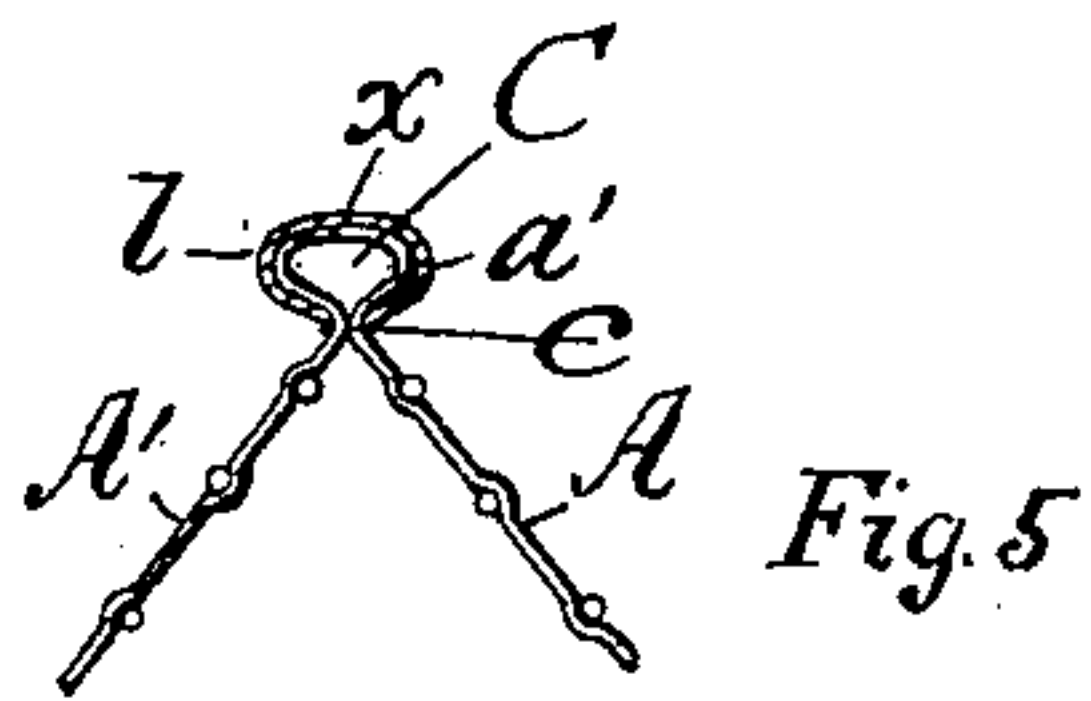
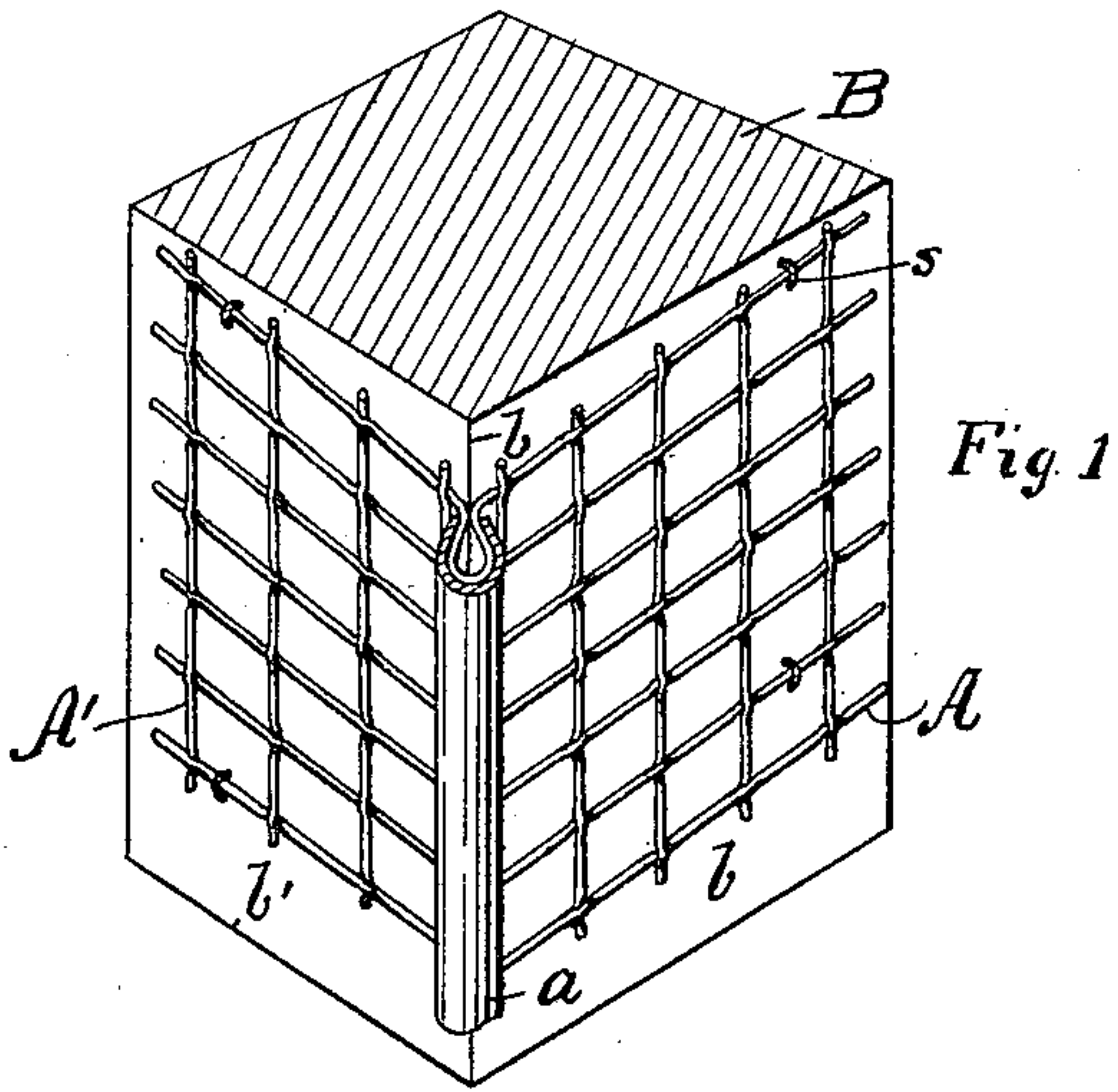
No. 658,386.

Patented Sept. 25, 1900.

F. A. MITCHELL.
CORNER STRIP OR BEAD.

(Application filed July 3, 1900.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

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CORNER STRIP OR BEAD.

SPECIFICATION forming part of Letters Patent No. 658,386, dated September 25, 1900.

Application filed July 3, 1900. Serial No. 22,406. (No model.)

To all whom it may concern:

Be it known that I, FERRIS A. MITCHELL, a citizen of the United States, residing in the city, county, and State of New York, have
5 invented a certain new and useful Improvement in Corner Strips or Beads, of which the following is a specification, reference being had to the accompanying drawings, wherein like letters of reference will refer to like parts
10 throughout.

My invention relates to corner strips or beads, such as are used to protect the angles of plastered walls, and has for its object the production of a device of this class which
15 shall be more efficient in use, as well as cheaper in its manufacture, than those which have preceded it. There have been many designs of this class put upon the market since the issue of the original patent to George
20 Corbett, No. 131,506, was granted. Most of these devices are lacking in one or more of the qualities required in a perfect corner-plate. Such a plate should be light, stiff, easily attached, with a perfectly-true edge,
25 and, finally, should be of sufficiently-low cost to add but little to the expense of finishing the walls of a building. Most of these qualities are to be found in the invention heretofore patented to me February 22, 1898, No.
30 599,343, and the present invention is in the nature of an improvement upon that device. In that case I employed a plate or strip of iron with many openings punched therein and bent at an angle on the longitudinal line,
35 so that when one inclined face was laid along the joist of a wall the other face would project at such an angle as to bring its edge into proper position to mark the external angle of the wall. I also employed an anchor plate
40 or bracket with a projection adapted to take into one of the openings in the corner plate or strip to hold it against the joist. In my former invention the openings in the plate were designed to afford passages for the plaster
45 from opposite sides, so that a good bond would be formed at the junction-point of the two plaster-faces of the wall or walls, this being a very important point to be considered in any corner-plate, as without the bond there
50 is but little adherence of the plaster to the metal, and a slight blow will cause the edges

to crack off. In my present invention and in order to attain the objects set forth I dispense with the metal plate formerly employed, utilizing in place thereof a strip of metal cloth. 55
This I bend longitudinally at such an angle that when one side is laid against the corner of a wall there will be a projecting edge in proper position to define and support the edge of the plastering. In one form of my
60 invention the wire-cloth strip is doubled into V shape in cross-section, being then laid upon the corner of the wall so that one flange will rest upon each face thereof. The line upon which the cloth is folded will then form the
65 defining edge for the plaster, and in either case I usually provide a metal rod or strip secured in some suitable manner to the projecting edge of the wire-cloth, so as to make a firm and continuous supporting edge for
70 the plaster and incidentally to stiffen the whole structure. In some cases this is a rod cross-cut at suitable intervals to receive the separate meshes of the wire-cloth, which are firmly gripped by upsetting the metal of the
75 rod upon them. In other cases I utilize a strip of sheet metal, which I form up under pressure and bend about the edge of the wire-cloth, so as to be firmly clamped thereon. In some cases I also find it desirable to lay the
80 edge of the wire-cloth bend upon a suitable rod or strip and by passing an electric current at the points of contact weld the strip into position. All of these and many other devices for fastening the parts together are
85 clearly within the scope and purview of my invention. In fact, the invention in this case, broadly stated, consists in a corner-strip formed of wire-cloth, which may or may not have a bead upon its projecting edge. It must
90 be obvious from this statement that the present invention fulfils all of the requirements previously referred to. Moreover, the wire-cloth permits a more perfect bond to be formed between the plaster on the adjacent walls
95 along their junction-line than can be attained with any other corner plate or strip within my knowledge. In previous devices the surface of metal presented on both sides to the plaster has always approached, if it has not ex-
100 ceeded, the area of the perforations; but in the present case it is obvious that the wires

of the cloth present a very small surface compared with the area of the openings even where the cloth is of fine mesh.

My invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a short section of a corner-strip made in accordance with my invention. Fig. 2 is a cross-section showing the plaster applied upon same. Fig. 3 is a perspective view of a corner-strip made in accordance with my invention and having a solid edge. Figs. 4 to 8, inclusive, show various forms of the bead on the strip in cross-section. Fig. 9 is a perspective of a modification of my invention.

Referring to the drawings, in Fig. 1, B is the corner-joist of a wall that is to be plastered. A A' are the two flanges of a wire-cloth corner-strip attached thereto. I have chosen to show the invention primarily in this way for convenience. B may be the corner of a brick wall, as the use of this invention is not restricted in any way, but may be extended to any field where plaster is employed. As shown in all of the figures, the strip consists, essentially, of a wire-cloth body A A' with a straight-edge or bead $a a'$, &c., applied thereto. In the preferred form of my invention shown in Figs. 1 to 8 there are two flanges to the wire-cloth body, adapted to embrace the edge b of the joist B between them. In some cases, however, I do not employ the double flanges, but provide a strip having a longitudinal bend, as shown at x in Fig. 9, whereby when one portion A is laid against one face of the joist or wall the other portion A² will project therefrom at a suitable angle to form the bead for the meeting faces of the plaster.

The form of strip shown in Figs. 1 to 8 is made in the following way: I first take a strip of wire-cloth of suitable width and bend it at x , so as to bring the two flanges A and A' into an acute angle with each other. The bend at x is not a sharp one, but is preferably rather rounded. The strip in this condition is ready for assembling with the straight-edge proper or bead a . This is a strip of metal which has been already bent to form a trough or channel, within which the bend x is placed, and then by means of suitable dies the side walls of the channel are compressed, so as to bend inward toward each other, clamping the wire-cloth between them, as at c , and forming in cross-sections the shapes shown in the drawings, that portion of the wire-cloth lying within the bead $a a'$, &c., forming a loop or enlargement, as shown at C. After thus assembling the strip is ready for use.

In Figs. 2 to 8 I have shown five different shapes given to the bead $a a'$, &c., this shape of course depending on the conformation of the dies used in compressing the bead upon the wire-cloth. In Figs. 1 and 4 the bead is

bent around in substantially a horseshoe shape. In Fig. 5 it is broadened and flattened. In Fig. 6 the sides are straight and the face is somewhat flat, so as to leave decided edges or corners. In Fig. 7 the face of the bead is formed into three curved surfaces in order to give an ornamental appearance, while in Fig. 8 the face is flattened and the sides are concaved, as at f . At first sight it might appear that the shape or configuration of this bead is a matter of small importance, but, as will appear more fully when the mode of application has been described, it has some bearing upon the efficiency of the device as a whole and has received deserved study.

Referring now to Fig. 2, the mode of application of the device can be clearly understood. B is the joist or corner of the wall to be plastered. A A' are the two wings or flanges of the wire-cloth strip, which have been applied to the corner so as to straddle it, as shown in Fig. 1, and then having been adjusted until the bead a^2 is truly vertical the whole is secured in position. It will be observed in Fig. 1 I have shown staples s for this purpose; but these staples are not necessary, and, in fact, I use by preference a mode of securing the strip which is indicated in Fig. 2 and which I consider to be novel and original with myself. This consists in first applying to the corner of the wall portions of gage-mortar, (shown by the dark shaded lines at G.) It is well understood by those familiar with this art that in preparing a wall to be plastered a "screen" is employed to determine the depth or level of the plastering. Thus a portion of gage-mortar will be deposited upon the wall at two or more points in line with each other, the surface of the mortar in each case being of the proper height from the wall to determine the thickness of the plaster at that point and the plane of all the levels or mortar-surfaces determining the surface of the plastering. In so forming a screen for the plasterers portions of the gage-mortar, which is a quickly-setting compound, are applied to the meeting edge of the walls, as shown in Fig. 2 at G. When these portions are so applied, I then place my corner-strip in position and press it firmly down upon the gage-mortar, which, passing through the meshes of the wire-cloth and bonding therethrough, permits the same to be first adjusted, and then when the mortar sets retains it immovably in position. It is obvious from this that I not only save the time of a man in securing the strips in position, but I dispense with the securing means as heretofore used—such as nails, staples, clips, or the like—and also render the adjustment particularly easy and accurate. The strip A A' having thus been secured upon the corner B of the wall or joist, the plastered faces of the wall may be com-

pleted, as shown at P and P', the plaster on each face extending out to and forming a junction-line with the surface of the metal bead a^2 , as shown at 1, which is called the "plaster-line." It will be observed that in applying the strip to the wall a more or less open space p is left between the bead a^2 and the edge of the wall. The component wires of the cloth strip are of such comparatively small diameter and sectional area that they do not impede the passage of the plaster through the space p , whereby, it will be observed, a practically-perfect bond is formed between the plaster-faces P and P'. This bond is much more perfect than any heretofore attainable and, in conjunction with a proper shape given to the bead a^2 , should effectually prevent any possibility of cracking or chipping along the plaster-line 1. For this reason I particularly prefer the form of bead shown in Figs. 2 and 6, because while the shoulder on each side of the bead sharply defines the plaster-line the sharply-bent inner face leaves a backing or support for the plaster on each side through the space p to the body of the plaster on the other side. I may state in this connection that the use of the wire-cloth has another very striking advantage over the use of a perforated metal strip or straight-edge. The metal used in such perforated plates has more or less resilience and will not only tend to alter its shape somewhat after it is placed in position, especially under pressure, but will respond to a blow or to pressure by vibrating in such a manner as frequently to loosen the plaster in a continuous line. The wire-cloth, on the other hand, not only does not respond by vibrating in this manner, but is much more stable when once placed in position.

Referring now to Fig. 3, I show therein a modification of my invention having a solid bead or edge formed of rod-stock instead of sheet metal. In this case the wire-cloth A A' is bent as before to form the U-shaped portion C', but instead of this being placed in a sheet-metal strip I provide the solid rod a^5 , having cross-cut grooves or channels a^{50} , which may be provided at such intervals as to receive every wire at the bend C', as shown in Fig. 3, or to receive every other wire or every third, fourth, or fifth wire, as may be desired. The rod having been placed in position along the bend in the cloth, the metal on each side of each groove a^{50} is upset or riveted down upon the wire, so as to secure the same firmly. Another mode of securing the bead in this form of my invention is by means of the passage of an electric current which will weld the wires to the metal rod a^5 at the different junction-points. This is accomplished, preferably, by connecting the rod a^5 to one side of the source of electrical energy and by having a wheel or presser-foot connected to the other side of the said source and then subjecting the wires to the pressure of the wheel or foot

one after the other in succession, the current passing as the parts are pressed together to effect a weld.

In Fig. 9 I have shown another form of my invention, as previously referred to, wherein but a single flange A rests against the wall edge and a projecting edge A³ is provided with a bent metal bead a , clamped thereon in a similar manner to the beads shown in Figs. 4 to 8, said bead a being changeable to any of the other shapes shown, as desired. This form of corner-strip may well be secured by gage-mortar in the same manner as that shown in Fig. 2.

What I claim, and desire to secure by Letters Patent, is—

1. A corner-bead for plastered walls consisting of wire-cloth adapted to be attached to the wall, and bent to form a straight edge, projecting from the angle of the walls, substantially as described.

2. A corner strip or bead for plastered walls composed of a strip of wire-cloth bent longitudinally, to form a wide and a narrow flange, the wide flange adapted to be secured to a corner-joist, and the narrow flange having a trued edge to form a straight edge for the plaster corner, substantially as described.

3. A corner strip or bead for plastered walls composed of a strip of metal wire-cloth bent on a longitudinal line to form a wing or flange for attachment to the corner of a wall, and a projecting edge, together with a straight edge member secured upon said projecting edge of the wire-cloth strips, substantially as described.

4. A corner strip or bead for plastered walls composed of wire-cloth bent to form an acute angle, with a pair of flanges adapted to embrace and be attached to the corner of the wall, and a metal edge member secured to the wire-cloth along the bent edge, substantially as described.

5. A corner strip or bead for plastered walls composed of a strip or sheet of wire-cloth bent longitudinally to form two flanges to straddle the corner of the wall, and a metal edge member compressed upon the bent edge of the wire-cloth, substantially as described.

6. A corner strip or bead for plastered walls composed of a wire-cloth strip with a strip of solid metal attached to its edge, substantially as described.

7. A corner strip or bead for plastered walls consisting of a strip of wire-cloth bent upon a longitudinal line to form a securing-flange and a projecting edge, substantially as described.

8. A corner structure for the meeting faces of plastered walls consisting of a solid base or foundation, a mass or masses of gage-mortar or other quick-setting plastic material deposited thereon along the edge, a perforated metal strip extended along the edge and embedded in said plastic material, and body-plaster covering the structure, substantially as described.

9. In a corner structure for plastered walls,
the combination with a corner-foundation, of
a perforated metal strip applied thereto, and
plastic material in masses binding the two to-
5 gether, together with external plastering cov-
ering the whole, substantially as described.

In witness whereof I have hereunto signed

my name, in the presence of two witnesses,
this 2d day of July, A. D. 1900.

FERRIS A. MITCHELL.

Witnesses:

MORTON Z. PAUL,

ELBERT WILLIAMSON.