

Jan. 23, 1951

H. MCB. JOHNSTON

2,538,837

GLOVE

Filed Jan. 12, 1949

2 Sheets-Sheet 1

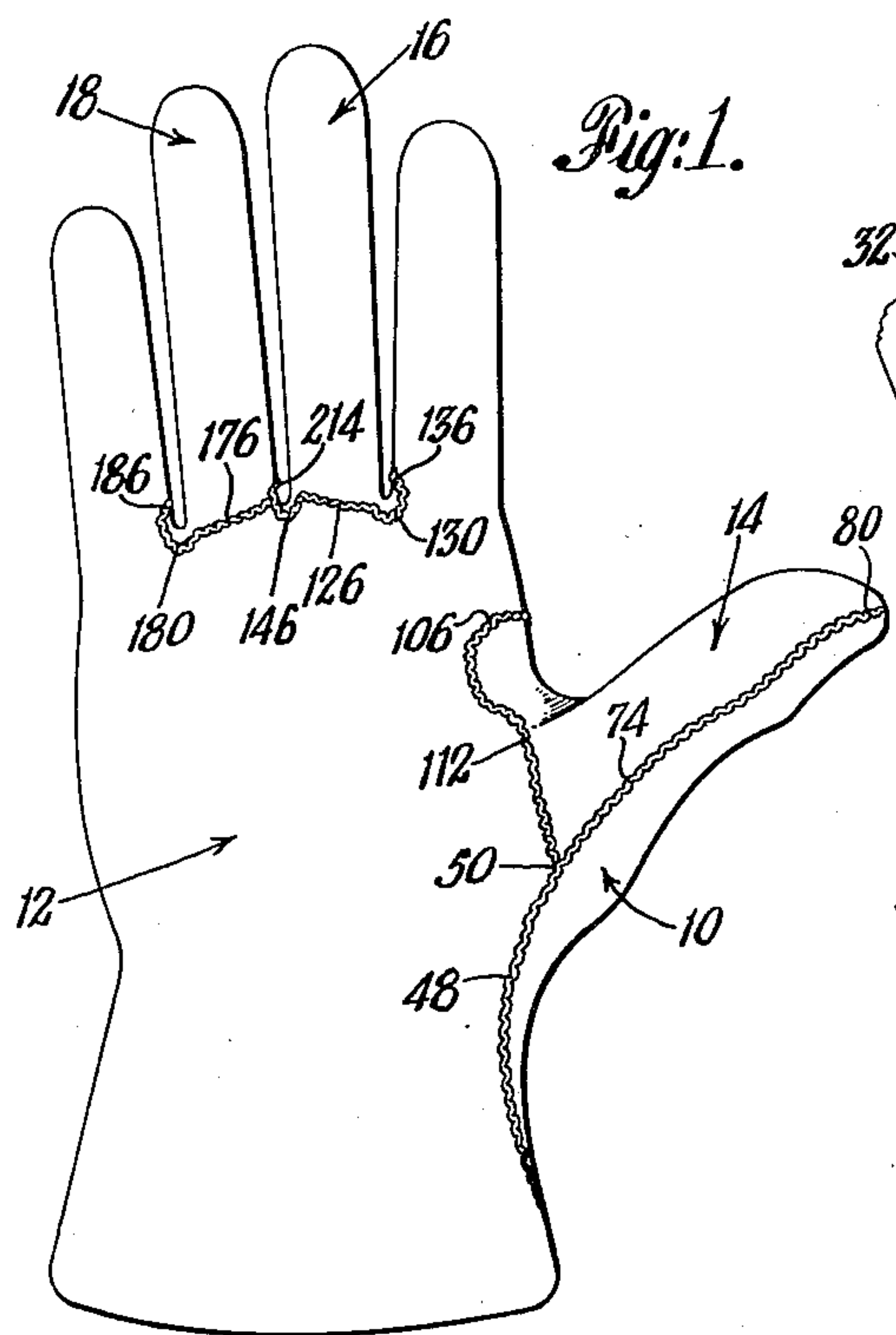


Fig. 1.

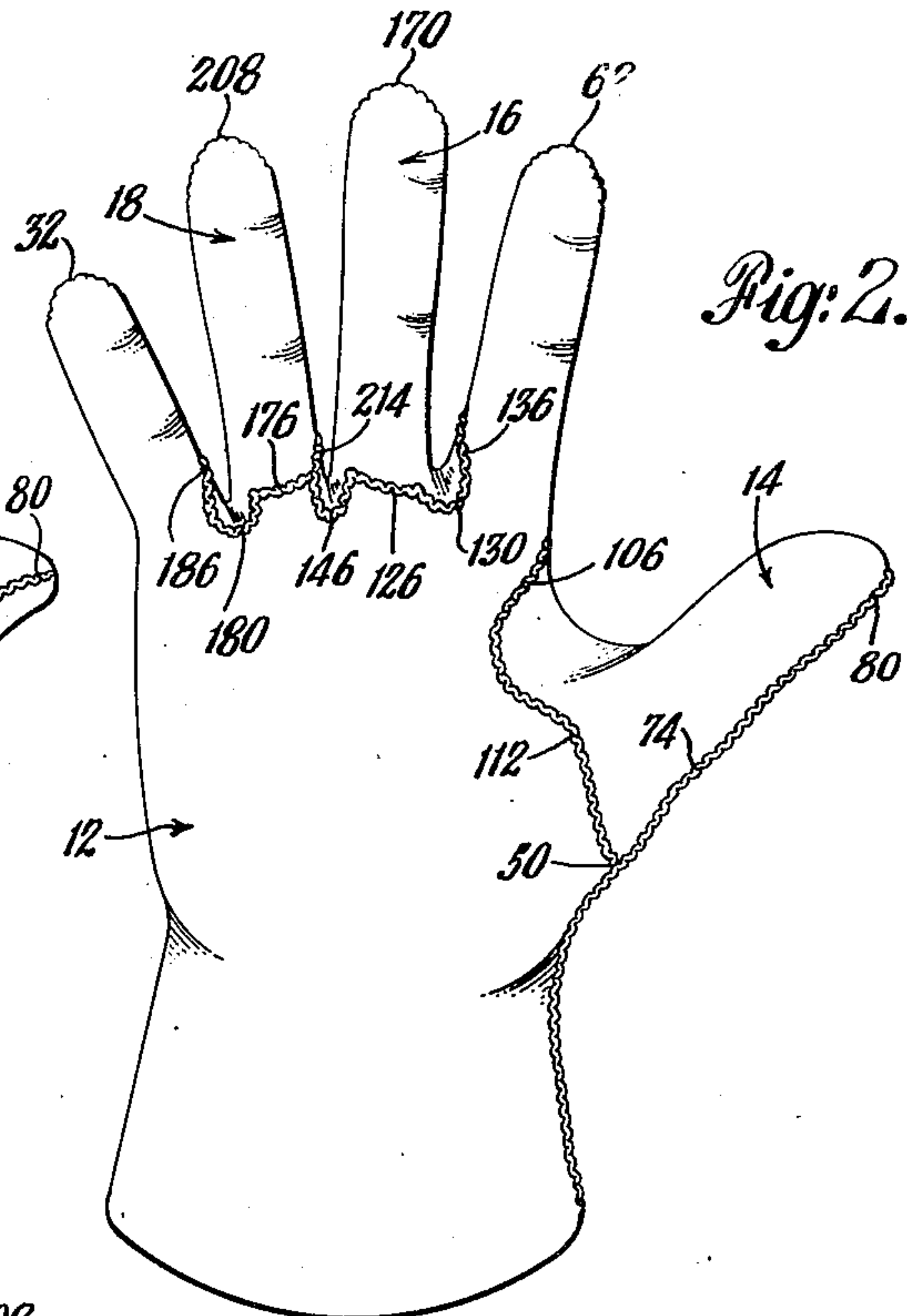


Fig. 2.

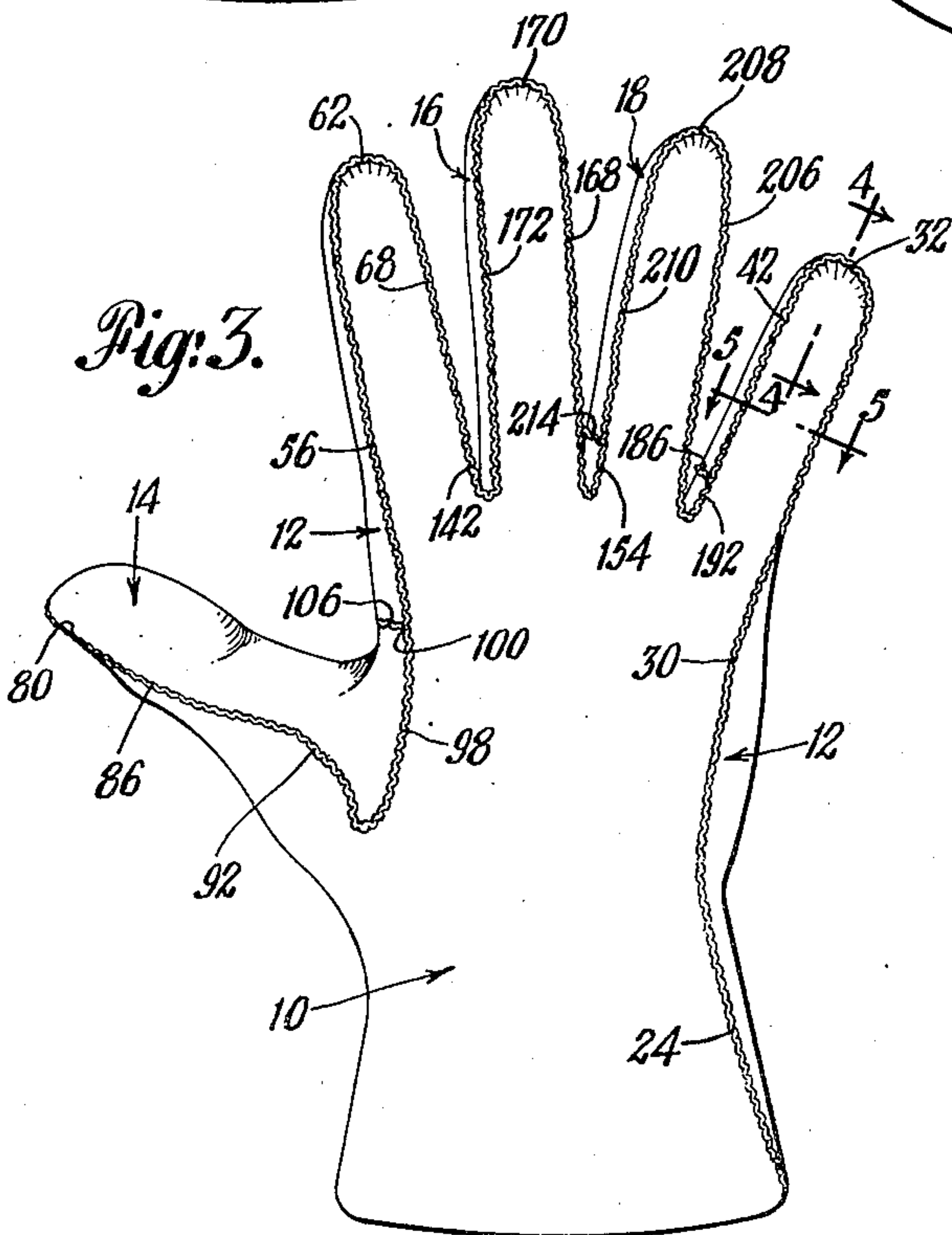


Fig. 3.

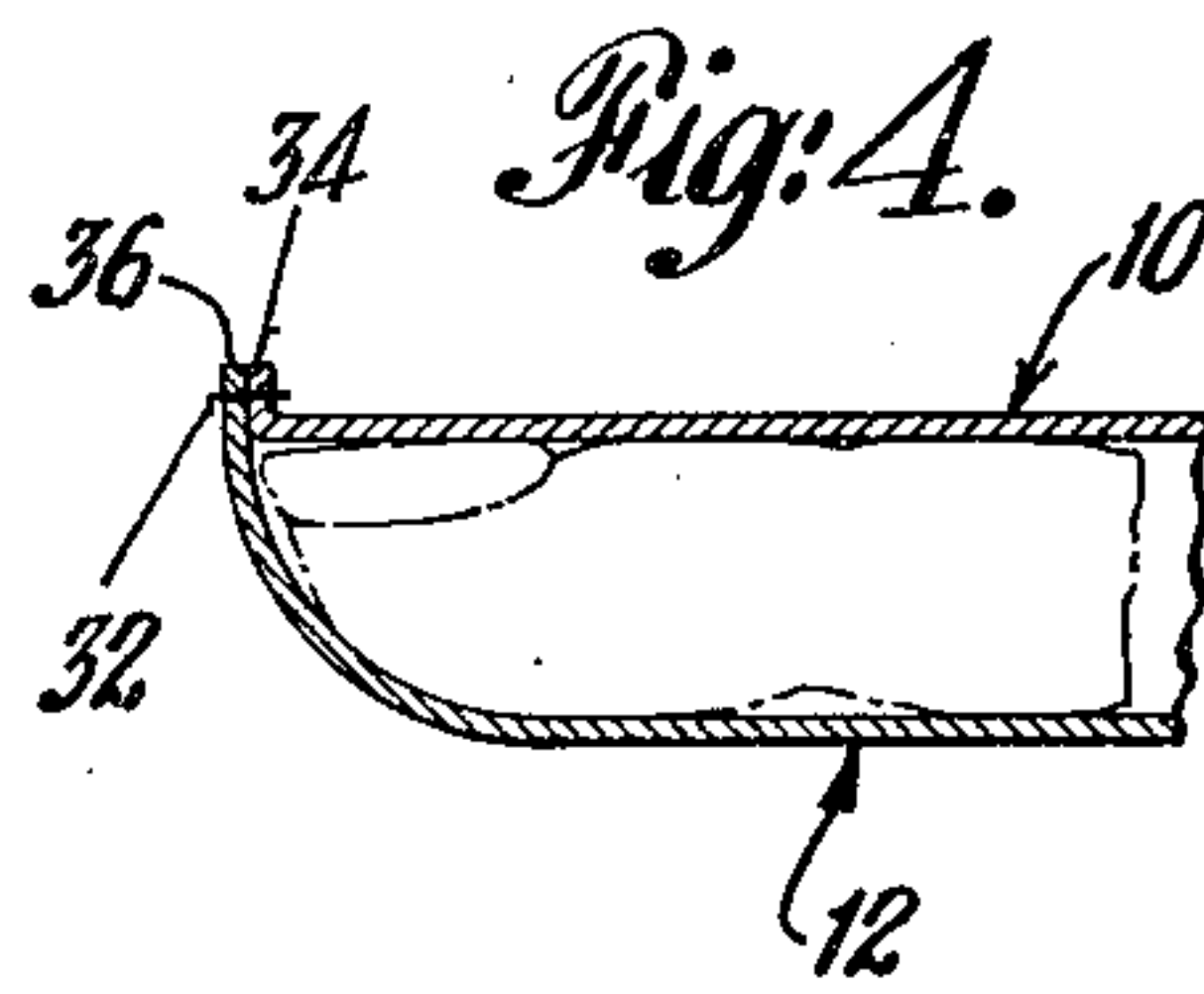
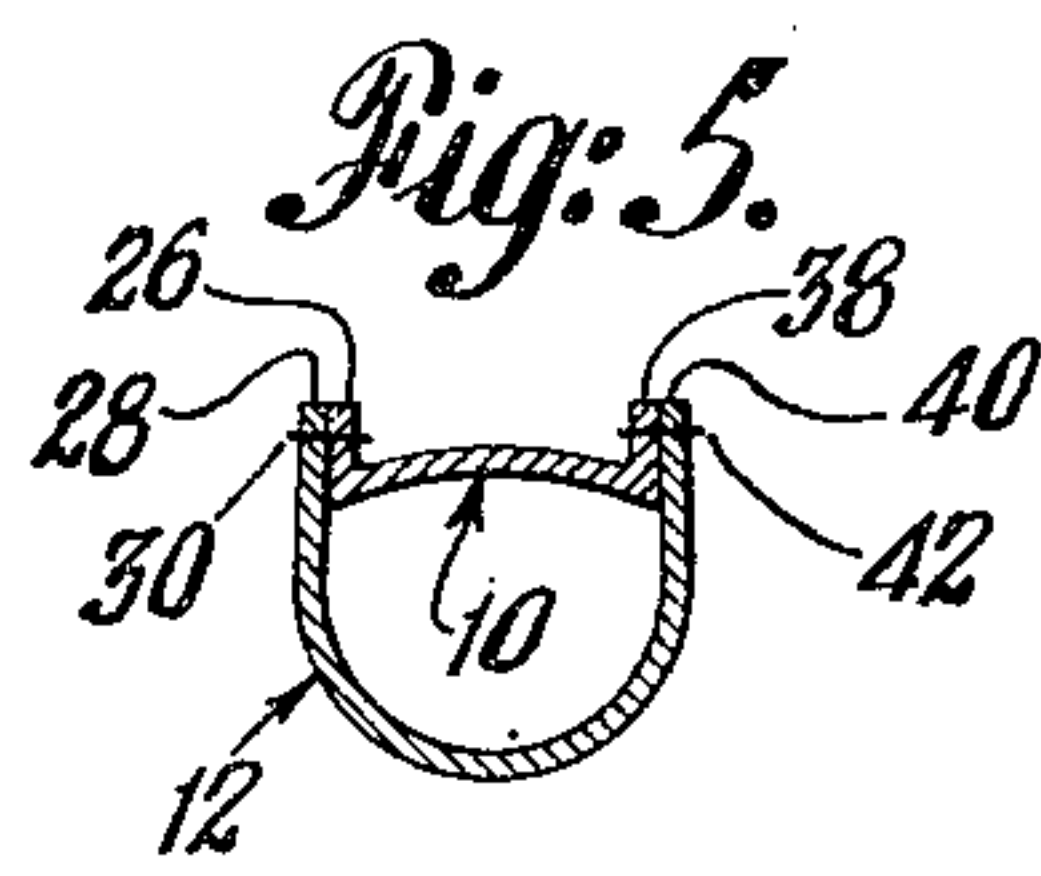


Fig. 4.



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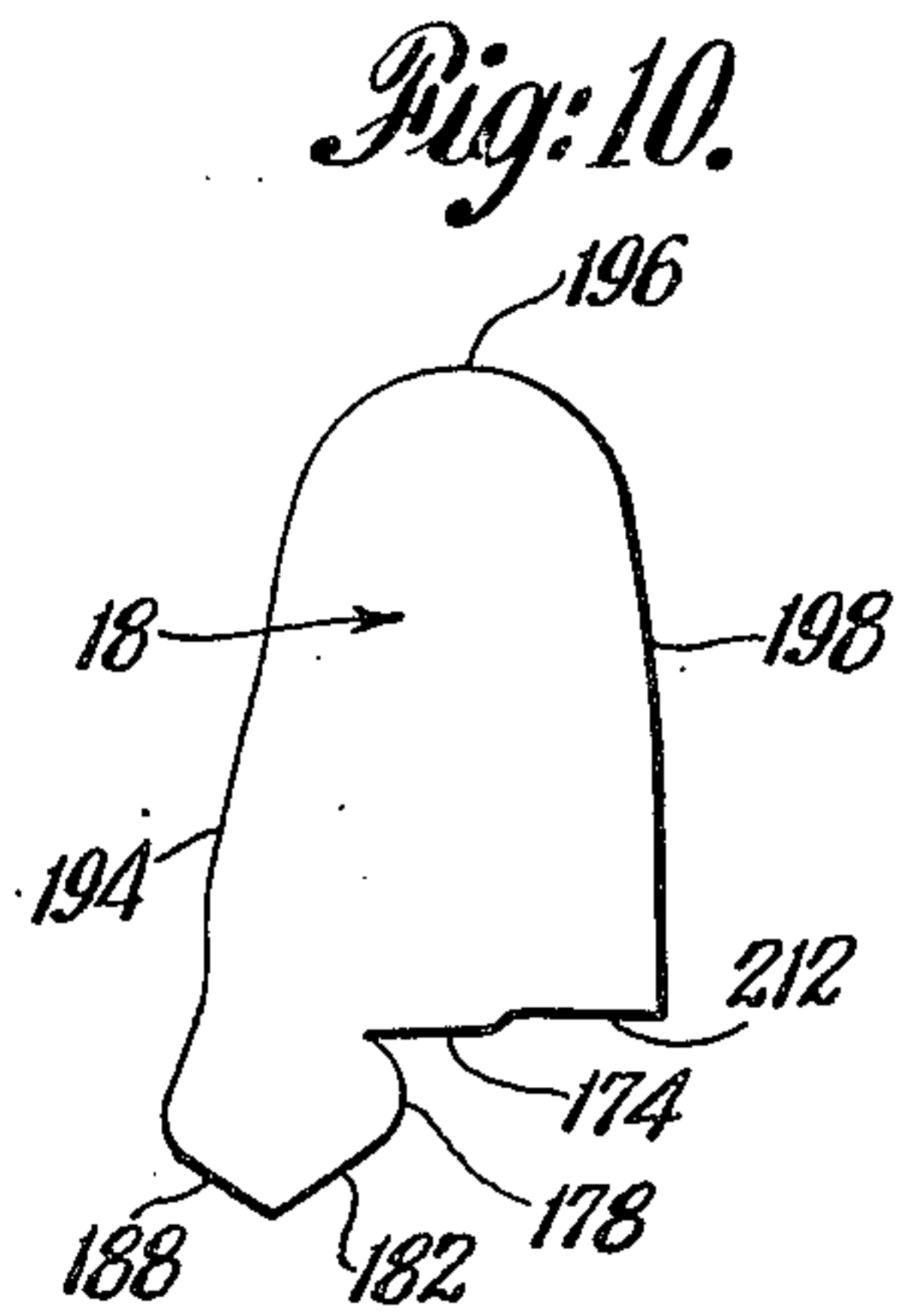
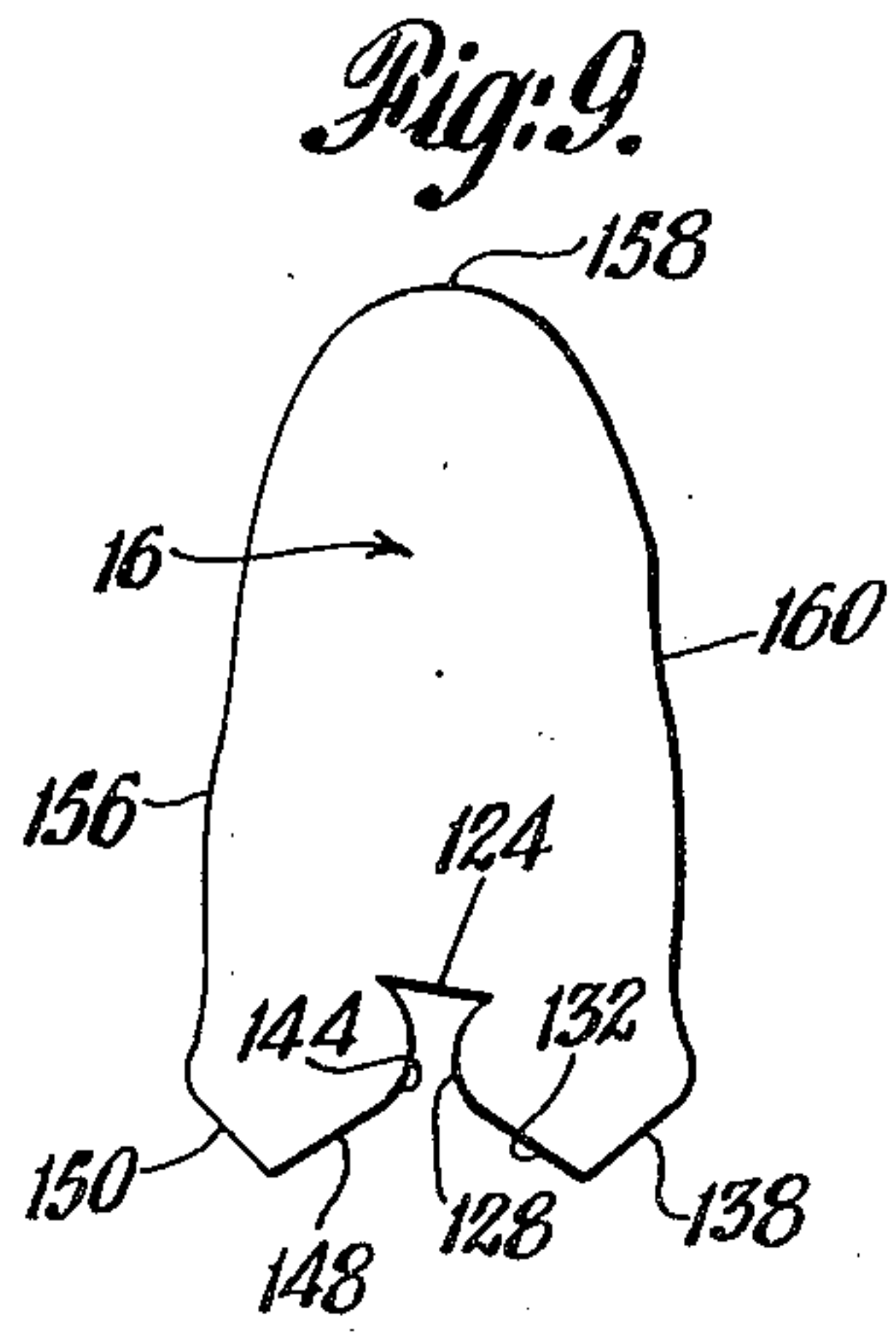
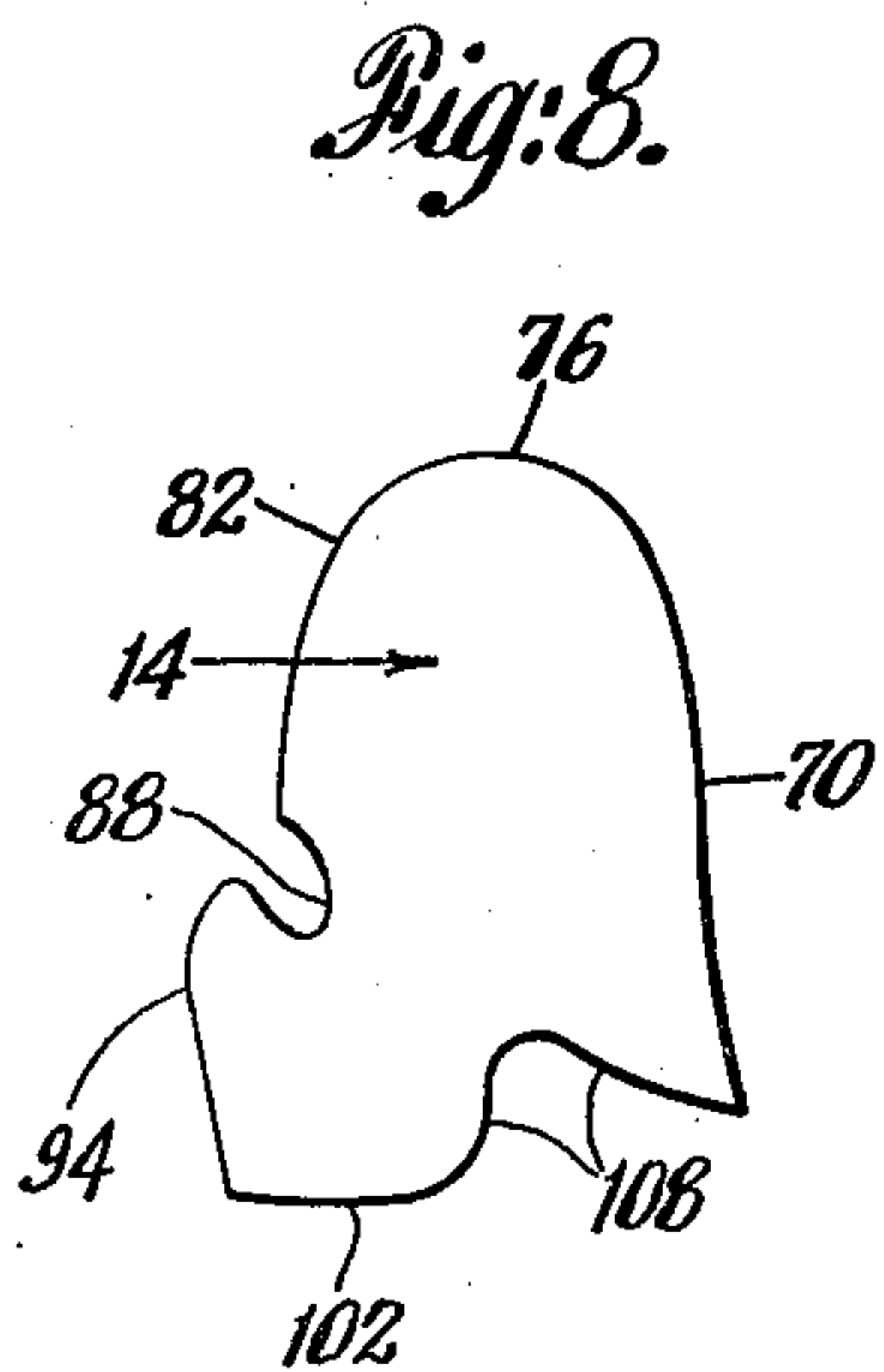
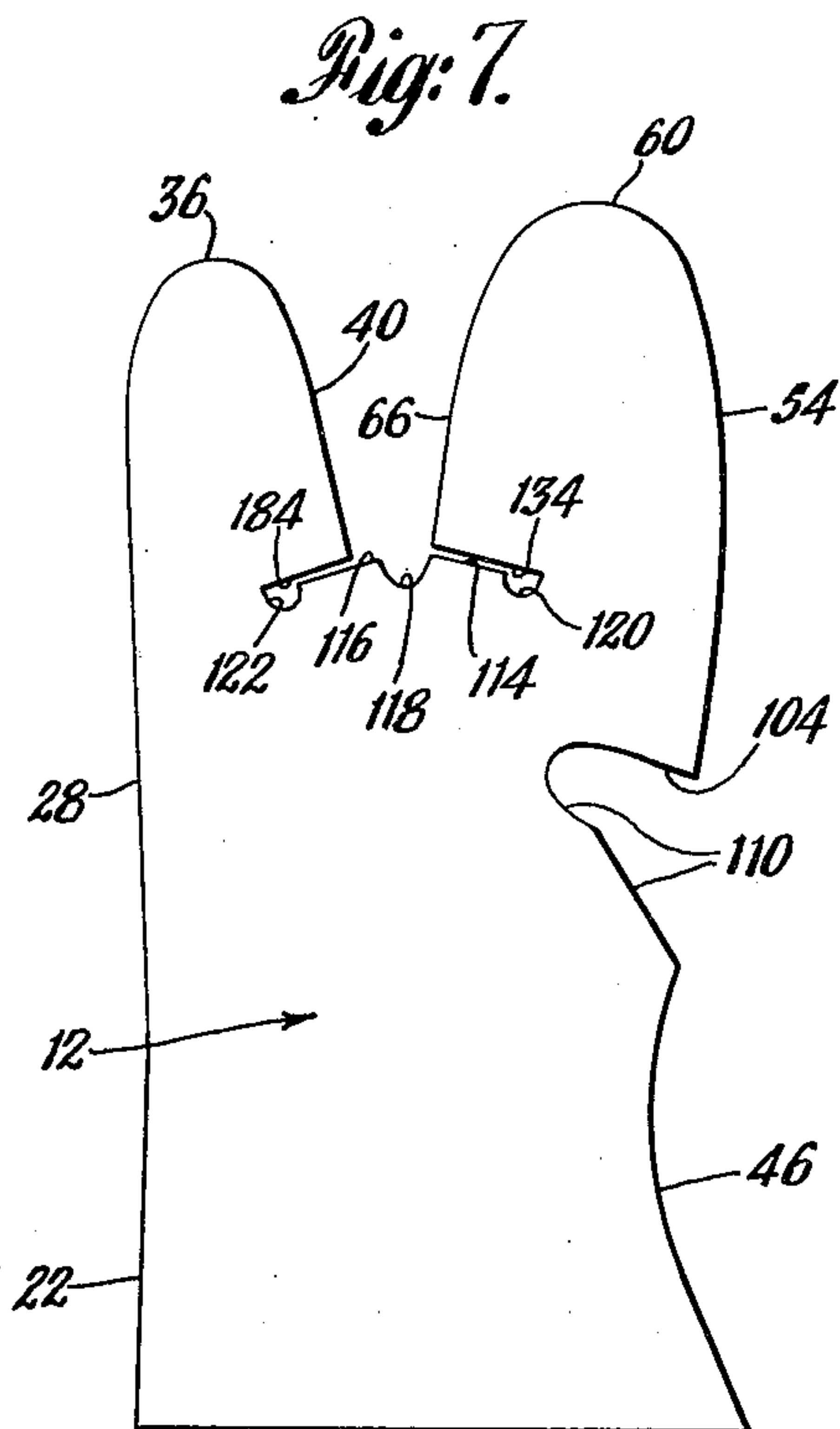
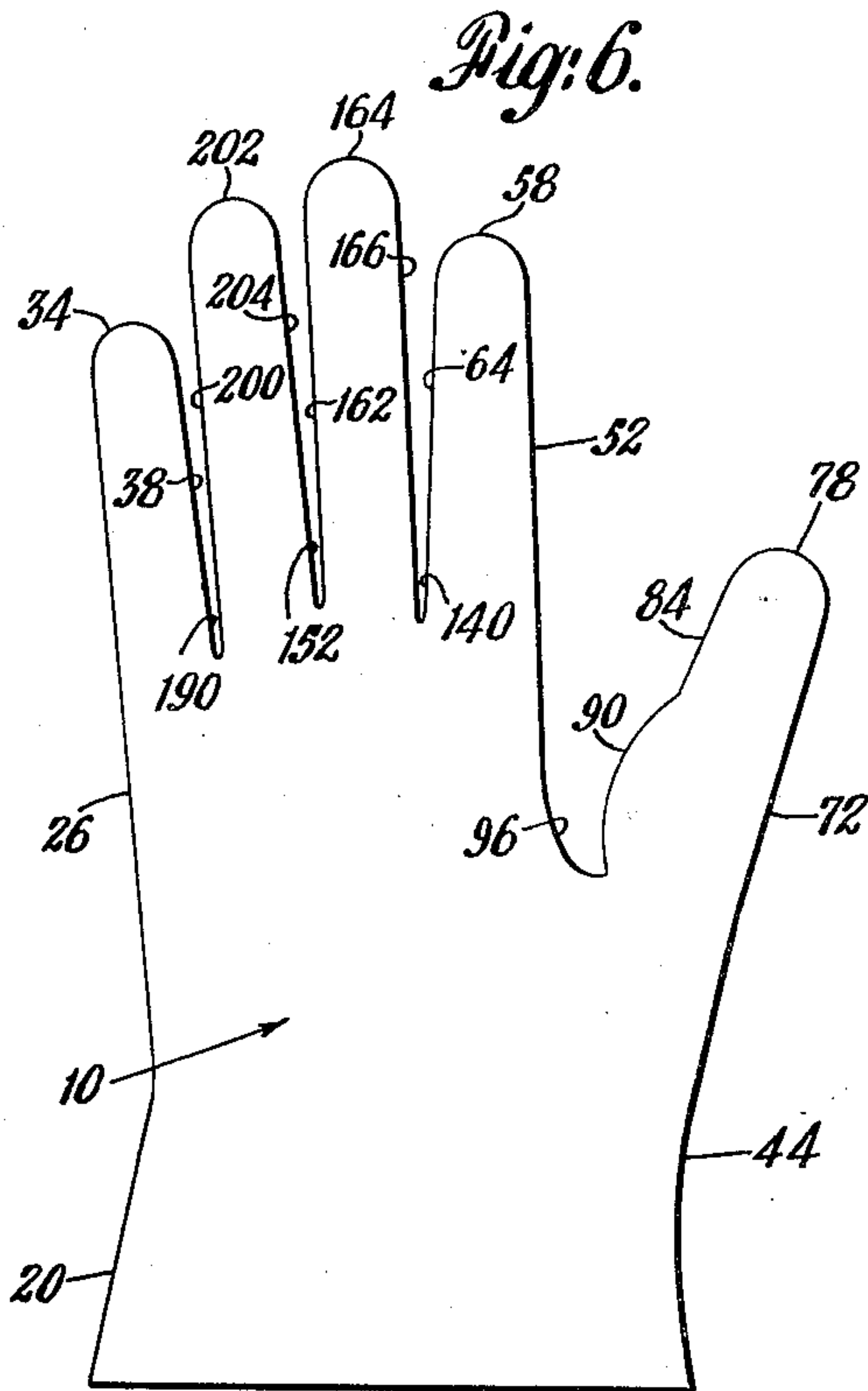
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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,538,837

GLOVE

Hugh McB. Johnston, Ghent, N. Y.

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3 Claims. (Cl. 2—169)

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The present invention relates to a glove. In particular, it is an object of this invention to provide a glove of snug-fitting type in which no seams are positioned on the sensitive portions of the fingers and thumb and which affords unusual freedom of movement for all parts of the hand. The glove of the present invention is particularly adapted for wear in such activities as hunting and riding where it is important that the sensitive portions of the fingers, thumb and palm be unimpeded by seams or bunches of slack material.

Each finger of the glove of the present invention is principally formed from two pieces of material, one relatively narrow piece forming the back and another relatively wide piece forming the front and sides. Thus the seam joining these pieces will run along the back of the finger, the wide front piece being gathered or tucked near the finger-tips so that the finger resembles a moccasin in appearance. The seam near the finger-tip is so designed as to substantially coincide with the edge of the fingernail or to lie on top of the nail. In this manner the entire front and tip of the wearer's finger is covered by a single thickness of glove material, smoothly molded to the shape of the finger and entirely free of seams or slack.

It is not broadly new to form the fingers of gloves from two pieces of material, such construction having been adopted for many forms of work gloves for durability and economy and in some instances the pieces of material forming the fronts of the fingers have been larger than the pieces forming the backs. In the glove of the present invention the larger front piece is secured to the back piece in a novel manner to conform the finger-covering portion of the glove to the finger while positioning the seam wholly upon the back of the finger. In gloves of the type of the present invention, the front portions of one or more fingers must be made from pieces of material separate from the piece from which the palm and other fingers may be formed. This is because there is not enough material in the palm blank to supply the fronts and sides of all four fingers.

A particular feature of novelty in the present invention lies in the formation and joining of the palm blank and the separate pieces for the front and sides of certain fingers so that in a finished glove of proper size the finger portions will fit snugly and smoothly all the way to the roots of the fingers and the palm portion will fit snugly and smoothly across the palm and to the roots of the fingers. This snug, smooth fit will

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continue in any position of the hand and fingers with entire freedom for separation, spreading or bending of the fingers and the usual movements of the palm and thumb.

Other features of the glove of the present invention include the positioning of the seams in the thumb and between the palm and back in such manner as to leave substantially all surfaces of the hand in which sensitivity is important, unhampered by seams or folds of loose glove material.

With the above and other objects in view, reference is made to the following detailed description of a preferred form of the invention and to the drawings accompanying and forming a part of the present specification.

In the drawings:

Fig. 1 is an elevational view of the palm side of a glove constructed in accordance with the invention, the glove being shown on the hand of a wearer, the palm being flattened and the fingers being shown in extended and collapsed position;

Fig. 2 is a view similar to Fig. 1, the fingers of the wearer being spread apart and the hand being tilted forward sufficiently to reveal the seams at the ends of the fingers;

Fig. 3 is an elevational view of the back of the glove as shown in Fig. 2;

Fig. 4 is a fragmentary sectional view taken along the line 4—4 in Fig. 3, showing the position assumed upon the finger of a wearer;

Fig. 5 is a fragmentary sectional view along the line 5—5 in Fig. 3;

Fig. 6 is an elevational view of the inside surface of a blank for the back of a right-hand glove as shown in Fig. 1;

Fig. 7 is an elevational view of the outside surface of a blank for the palm, and the front and sides for the index and fourth fingers;

Fig. 8 is an elevational view of the outside surface of a blank for the thumb.

Fig. 9 is an elevational view of the outside surface of a blank for the front and sides of the middle finger; and

Fig. 10 is an elevational view of the outside surface of a blank for the front and sides of the ring finger.

Referring now to the drawings, Figs. 1 and 3, there is shown a right-hand glove of the preferred form embodying the present invention. The glove includes a back portion 10, a palm portion 12, a thumb portion 14, a middle finger portion 16 and a ring finger portion 18. The blanks from which these portions are formed are shown respectively in Figs. 6, 7, 8, 9 and 10.

Any suitable material or combination of ma-



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materials may be used for the blanks 10, 12, 14, 16 and 18, it being obvious that soft and pliable material is preferable if sensitivity of the hand and fingers is to be reduced as little as possible. Soft leather is particularly suitable although fabrics may be used if so desired.

In Fig. 6 the blank 10 for the back of the glove is shown with the inside surface uppermost so that the relation between the blank 10 and the palm blank 12 (Fig. 7) may be readily seen. The edge portion 20 of blank 10 is united with edge portion 22 of blank 12 by any suitable means such as stitching to form the seam portion 24 shown in Fig. 3. The edge portions 26 of blank 10 and 28 of blank 12 are stitched to form seam portion 30 which extends to the beginning of the curved seam portion 32 at the tip of the fourth finger. The latter seam portion is formed by stitching the curved edge portion 34 of blank 10 with the curved edge portion 36 of blank 12.

It will be noted that the radius of curvature of the edge portion 36 of blank 12 is considerably greater than that of edge portion 34 of blank 10. Thus, in stitching these portions together, it is necessary to gather the edge 36, causing the material adjacent the edge to bulge outwardly. Proper relationship between the edges 34 and 36 will result in exactly the amount of fullness necessary to make the material conform to the shape of the tip of the wearer's finger. Thus the gathered material and the seam portion 32 will lie on top of the fingernail in general coincidence with the edge thereof, as shown in Fig. 4, resulting in an appearance resembling a moccasin.

The edge portions 38 of blank 10 and 40 of blank 12 are stitched to form the seam portion 42. The length of edge portion 40 is less than that of edge portion 38 whereby the seam portion 42 terminates above the crotch between the fourth and ring fingers as shown in Fig. 3.

The edge portions 44 of blank 10 and 46 of blank 12 are stitched to form seam portion 48 (Fig. 1) which terminates at point 50 (Fig. 1), leaving an opening for insertion of the thumb blank 14.

Referring again to Figs. 6 and 7, the edge portions 52 of blank 10 and 54 of blank 12 are stitched to form seam portion 56 (Fig. 3) along the back of the index finger. The curved edge portions 58 of blank 10 and 60 of blank 12 are stitched, gathering the edge 60 as described above, to form the seam portion 62 (Fig. 3) at the tip of the index finger. The edges 64 of blank 10 and 66 of blank 12 are stitched to form the seam portion 68 (Fig. 3), this seam portion terminating above the crotch between the index and middle fingers as indicated in Fig. 1.

From the description to this point it will be apparent that the blanks 10 and 12, stitched together, form the entire back and palm of the glove as well as the backs for all of the fingers and thumb. In addition the portion of blank 12 bounded by edges 28, 36 and 40, has formed the front, one complete side and the major portion of another side of the fourth finger. Similarly the portion of blank 12 bounded by edges 54, 60 and 66, has formed the front, and the major portions of both sides of the index finger.

The edge portion 70 of the thumb blank 14 (Fig. 8) is stitched to the edge portion 72 of the back blank 10, the lower extremity of the edge 70 being secured at point 50 (Fig. 1) where the seam 48 terminates. The edges 70 and 72 form seam portion 74 shown in Fig. 1. The curved

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edge portion 76 of blank 14 (Fig. 8) is stitched to the curved edge portion 78 of blank 10 to form seam portion 80 (Figs. 1 and 3), the longer edge 76 being gathered as in the case of the fingers to fit the thumb portion of the glove to the thumb of the wearer.

The edge portion 82 of blank 14 (Fig. 8) is stitched to edge portion 84 of blank 10 to form seam portion 86 (Fig. 3). The edge portion 88 of blank 14 comprising a deeply cut and sharply curved notch is stitched to the bulging edge portion 90 of blank 10 to form seam portion 92 shown in Fig. 3. The edge portion 94 of blank 14 is stitched to the edge portion 96 of blank 10 to form seam portion 98 (Fig. 3) which terminates at point 100 where the previously described seam portion 56 begins.

From the point 100 the thumb blank 14 is united with the palm blank 12 (Fig. 7), the edge portion 102 of blank 14 being stitched to edge portion 104 of blank 12 to form seam portion 106 (Figs. 3 and 1). The reversely curved seam portion 108 of blank 14 is stitched to the curved and straight edge portion 110 of blank 12 to form seam portion 112 (Fig. 1) which terminates at point 50.

The thumb structure just described is such that the seam portions 74, 80 and 86 lie well upon the back of the wearer's thumb curving with the thumb-nail, thus leaving the ball and tip of the thumb free of seams or folds of slack material. The deep backward curve of seam portion 86 (Fig. 3) leaves the side of the thumb toward the index finger free of seams, a feature particularly desirable for the operation of safety devices in firearms.

As stated above, it is necessary in a glove of the general type herein disclosed to provide separate pieces of material for the front and sides of certain fingers, and a particular feature of novelty in the present invention lies in the construction of such extra pieces and of the palm blank. In the preferred form chosen for illustration the extra pieces are provided for the middle and ring fingers and they are so constructed and attached to the palm blank as to place the seams where they will interfere the least while at the same time providing for a snug fit and complete freedom for all normal movements of the hand and fingers.

To this end the palm blank 12 (Fig. 7) is so cut as to provide a relatively straight, sloping edge portion 114 so positioned as to fall at the root of the middle finger and a similar oppositely sloping edge portion 116 for the root of the ring finger. Between the edge portions 114 and 116 there is formed a notch 118 curved inwardly or downwardly of the palm. Similarly curved notches 120 and 122 are cut out of the glove material at the opposite ends, respectively of the edge portions 114 and 116. The notches just described are so positioned as to fall opposite the crotches between adjacent fingers and are adapted to be united with suitable tabs on the separate finger blanks 16 and 18 to form smooth snug-fitting crotches which will not interfere with bending or spreading of the wearer's fingers.

Referring now to Figs. 7 and 9, the middle finger blank 16 is provided with an edge portion 124 which is stitched to the edge portion 114 of blank 12 to form seam portion 126 (Fig. 1). A curved edge portion 128 of blank 16 is stitched to the edge of notch 120 in blank 12 to form the seam portion 130 which curves inwardly or downwardly



of the palm as shown in Fig. 1. Edge portion 132 of blank 16 is stitched to edge portion 134 of blank 12 to form seam 136 which extends backwardly along the inside of the index finger as shown in Fig. 1 to meet the lower end of seam portion 68. Edge portion 138 of blank 16 is stitched to edge portion 140 (Fig. 6) of the back blank 10 to form the seam portion 142 (Fig. 3). This completes the construction of the crotch between the index and middle fingers.

Referring again to Figs. 7 and 9, curved edge portion 144 of blank 16 is stitched to the edge of curved notch 118 of blank 12 to form curved seam portion 146. Edge portion 148 of blank 16 is to be stitched to a suitable part of the ring finger blank 18, as will be described. Edge portion 150 of blank 16 is stitched to an edge portion 152 on the back blank 10 (Fig. 6) to form seam portion 154 (Fig. 3). Edge portions 156, 158 and 160 of blank 16 are stitched respectively to edge portions 162, 164 and 166 of the back blank 10 to complete formation of the middle finger of the glove by means of seams 168, 170 and 172 respectively (Fig. 3). The curve edges 158 and 164 are so stitched as to gather the edge 158 forming the finger-tip like a moccasin, as described above in connection with the fourth finger as shown in Fig. 4.

The ring finger blank 18 (Fig. 10) is provided with an edge portion 174 which is stitched to edge portion 116 of palm blank 12 to form seam portion 176 (Fig. 1). Curved edge portion 178 of blank 18 is stitched to the curved edge of notch 122 in blank 12 to form the curved seam 180 (Fig. 1). Edge portion 182 of blank 18 is stitched to edge portion 184 of blank 12 to form seam 186. Edge portion 188 of blank 18 is stitched to edge portion 190 of back blank 10 (Fig. 6) to form seam portion 192 (Fig. 3). Edge portions 194, 196 and 198 of blank 18 are stitched to edge portions 200, 202 and 204 respectively of the back blank 10 to complete the construction of the moccasin-shaped ring finger of the glove by means of seams 206, 208 and 210 respectively (Fig. 3).

Edge portion 212 of blank 18 (Fig. 10) is stitched to edge portion 148 of blank 16 (Fig. 9) to form seam portion 214 (Figs. 1 and 3) which extends backwardly of the ring finger to meet the intersection of seam portions 154 and 210 as seen in Fig. 3.

From a consideration particularly of Figs. 1 and 2 the operation of the connected seam portions 180, 176, 146, 126 and 130 may be understood. When the fingers of the wearer are extended in collapsed position as shown in Fig. 1, the curved seam portions 180, 146 and 130 extend sharply down into the palm where the extra material afforded by the tabs bounded by curved edges 178, 144 and 128 is needed in this position of the hand if the crotches between the fingers and portions of the palm leading thereto are not to be stretched. When the wearer's fingers are spread apart as shown in Fig. 2, wherein the hand is tilted somewhat toward the observer, the curved seam portions 180, 146 and 130 are partially straightened, making the effective length of the series of connected seams greater and simultaneously conforming the crotch portions of the glove to the crotches between the spread fingers of the wearer. There is no binding or stretching of the glove material at any point as the hand is flexed between the positions shown in Figs. 1 and 2.

It also will be noted that the seam portions 176 and 126 are positioned at the intersections between the palm and the ring and middle fingers

respectively so that when either or both of these fingers are bent toward the palm as in gripping an object, the seams fall, within binding, into the creases naturally formed in the hand at these intersections.

The seams 186, 214 and 136 which extend backwardly between the fingers are located sufficiently above the crotches to avoid stiffening these areas, but they are well below the adjacent knuckles so that almost all of the sensitive side areas of the fingers are covered only by a single thickness of smoothly-fitting material.

In the above detailed description a preferred form of glove embodying the present invention has been described in terms of the formation of the seams joining the parts of the glove. It will be understood that the order of description is not necessarily the order in which the glove is assembled in manufacture. Furthermore, outwardly turned seams have been illustrated for clarity of disclosure and because such seams are particularly desirable when certain types of leather or other material is used. When other materials, or where a different appearance is sought, some or all of the seams may be turned inwardly if so desired. The terms used are intended to be taken in a descriptive, rather than in a limiting sense, the scope of the invention being limited only by the appended claims.

I claim:

1. A glove including a back blank having portions for covering the back of the hand and the backs of each of the fingers and the thumb; a palm blank for covering the palm and the front of the index finger at least; and a separate thumb blank for covering the front and both sides of the thumb; said thumb blank being secured to said back blank by a seam extending from a point on the front side of the thumb near the root thereof, along the forward edge of the thumb, around the tip thereof in substantial coincidence with the edge of the thumb-nail, along the back edge of the thumb to a point well below the crotch between the thumb and index finger and from said point upwardly along the back of the hand to a point adjacent the root of the index finger; and said thumb blank being attached to said palm blank by a seam extending from said point on the front side of the thumb near the root thereof upwardly along the palm to a point adjacent the root of the index finger, thence turning toward the back of the hand so as to extend transversely of the index finger adjacent the root thereof and terminating on the back of the hand in an intersection with the seam joining said thumb blank and the back blank.

2. A glove including a back blank having portions for covering the back of the hand and the backs of the fingers and the thumb; a palm blank for covering the palm and the front of the index finger at least, the palm blank being joined to the back blank by a seam extending along the edge of the wrist to a point adjacent the root of the thumb; and a separate thumb blank for covering the front and sides of the thumb, said thumb blank being secured to said back blank by a seam extending from said point near the root of the thumb along the forward edge of the thumb, around the tip thereof in substantial coincidence with the edge of the thumb-nail and along the back edge of the thumb to a point of intersection with the palm blank within the crotch between the thumb and index finger, and said thumb blank being attached to said palm blank by a seam curving from said point near the root of the thumb upwardly along the palm,



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and around the thumb to said point of intersection.

3. A glove including a back blank having portions for covering the back of the hand and the backs of the fingers and the thumb; a palm blank for covering the palm and the front of the index finger at least; and a separate thumb blank for covering the front and sides of the thumb, said thumb blank being secured to said back blank by a seam extending from a point near the root of the thumb along the forward edge of the thumb, around the tip thereof in substantial coincidence with the edge of the thumb-nail and along the back edge of the thumb to a point of intersection with the palm blank within the crotch between the thumb and index finger, and said thumb blank being attached to said palm

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blank by a seam curving from said point near the root of the thumb upwardly along the palm and around the thumb to said point of intersection.  
HUGH McB. JOHNSTON.

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The following references are of record in the file of this patent:

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**Certificate of Correction**

Patent No. 2,538,837

January 23, 1951

HUGH McB. JOHNSTON

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows:

Column 6, line 3, for the word "within" read *without*; line 23, for "When" read *With*;

and that the said Letters Patent should be read as corrected above, so that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 27th day of March, A. D. 1951.

[SEAL]

THOMAS F. MURPHY,  
*Assistant Commissioner of Patents.*