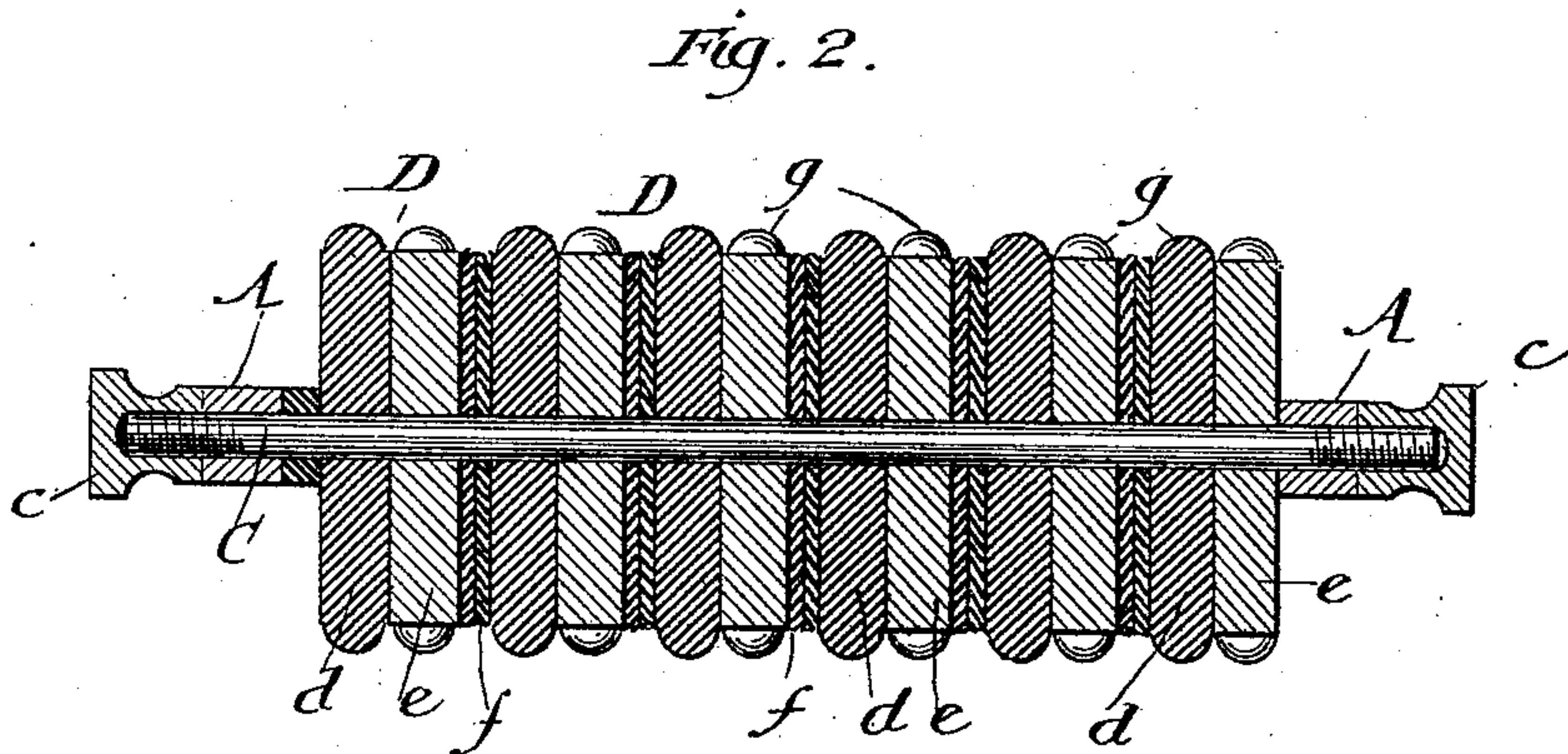
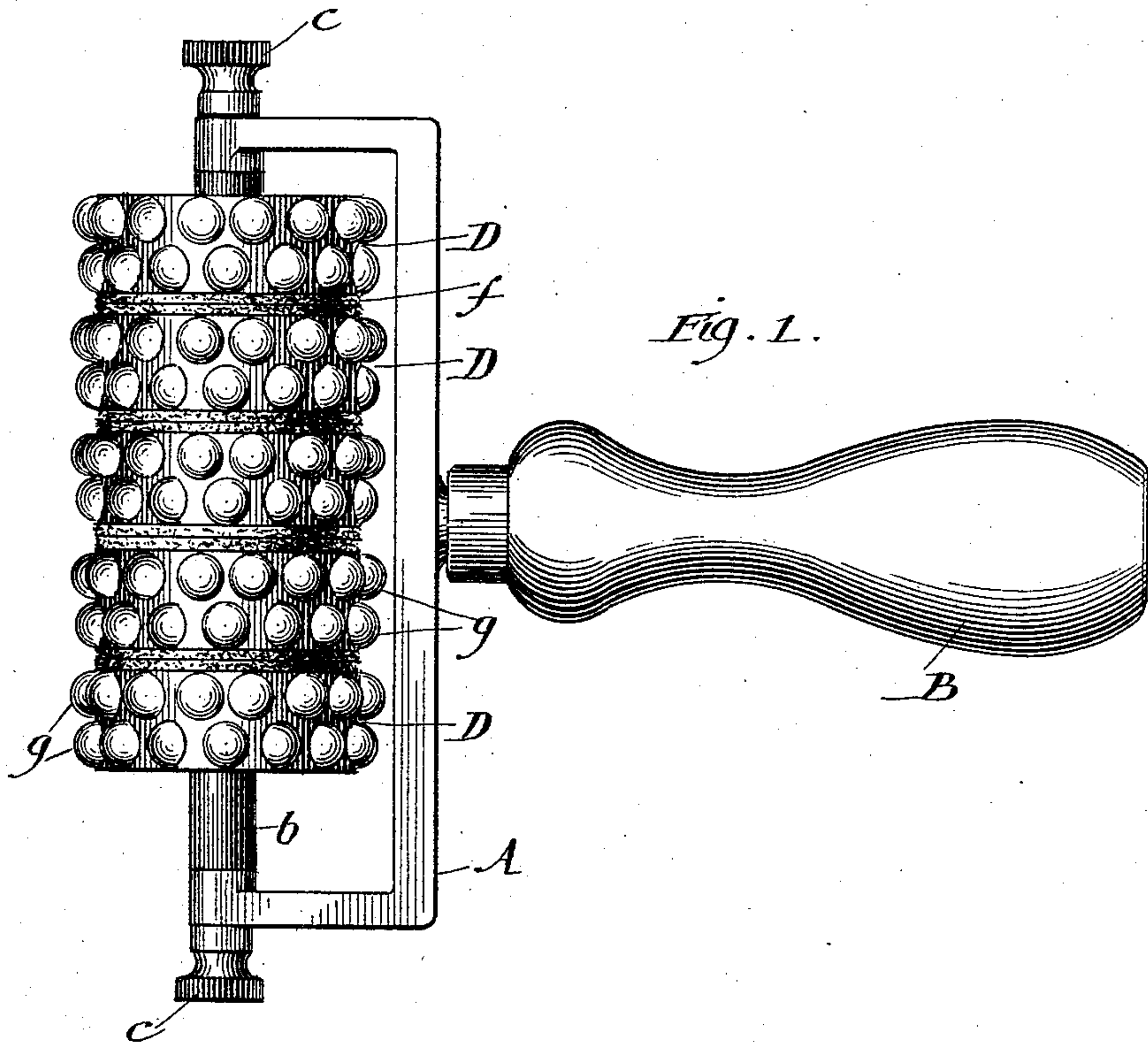


(No Model.)

D. & C. LICHTENSTADT.
ELECTRIC MAGNETIC MASSAGE KNEADER.

No. 444,597.

Patented Jan. 13, 1891.



Witnesses:
Frank J. Blanchard
John L. Jackson.

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UNITED STATES PATENT OFFICE.

DAVID LICHTENSTADT AND CHARLES LICHTENSTADT, OF CHICAGO, ILLINOIS

ELECTRIC MAGNETIC MASSAGE-KNEADER.

SPECIFICATION forming part of Letters Patent No. 444,597, dated January 13, 1891.

Application filed December 8, 1890. Serial No. 373,927. (No model.)

To all whom it may concern:

Be it known that we, DAVID LICHTENSTADT and CHARLES LICHTENSTADT, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in an Electric Magnetic Massage-Kneader, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view, and Fig. 2 is a central longitudinal section.

The object of our invention is to provide an improved electric magnetic massage-kneader for use in all cases of nervous and rheumatic pains and in similar local diseases.

It is the chief object of our massage-kneader to combine electricity and magnetism with the massage treatment.

Our invention consists in a kneader provided with electric elements, which are adapted to be rolled over the surface to be treated, and in the magnetic bar upon which said elements are supported, and in the combination of the various parts, as hereinafter described, and pointed out in the claims.

In the drawings, A represents a frame of metal. Upon this frame of metal is secured an insulated handle B. This handle B may be made of wood, glass, rubber, or other suitable insulating material.

C represents a magnetic steel bar, which is secured in the frame A by means of the nuts *c*. This steel bar C is a permanent magnet, and is highly magnetized before being inserted in place.

D represents a series of electric elements. Each element D consists of a copper disk *d* and a zinc disk *e*. Each disk has a central hole to fit the bar C loosely, and is provided with a number of nipples *g*, arranged around its periphery. The copper disks *d* and the zinc disks *e* of each element are soldered together, and the outer surface of each zinc disk is amalgamated with quicksilver in the usual way. Between the several elements are placed felt pads *f*, which are saturated, preferably, with diluted sulphuric acid and glycerine. The elements are placed upon the bar C, which forms the axis in consecutive order—that is, first a copper and zinc element, then a prepared felt pad *f*, next a copper and zinc

element, and so on to the desired number of elements. As many elements D may be used as may be desired or necessary in treating a particular disease. As shown in Fig. 2, six elements are used, which elements fill the space between the ends of the frame A; but, if desired to use a smaller number, one or more elements may be omitted and a rubber washer placed between the last element and the end of the frame A. The number of elements may be greatly increased by increasing the size of the frame A; but the size shown is preferable for many reasons.

The kneader is used by rolling the elements D over the surface to be treated, and the electricity produced by the elements D and the felt pads *f* will greatly increase the efficiency of the kneader, as it is well known that the application of electricity is a cure for rheumatism and similar diseases. The magnetism of the bar C also greatly increases the efficiency of the kneader, as magnetism also has been found efficacious in the treatment of rheumatism, rheumatic pains, and similar diseases. The nipples *g* of each element are arranged so that the nipples upon one disk will come between the nipples of the adjoining disk. By this construction a nipple will be in contact with the surface being treated at all times.

The handle B may be varied in form and size to suit the convenience of the operator. Where the person being treated desires to apply the kneader without assistance, the handle B may be varied in form, so that the person can readily apply the kneader to the surface to be treated.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a massage-kneader, the combination, with a frame A and a bar C, of a series of elements consisting of zinc and copper disks arranged upon said bar and adapted to be rolled over the surface to be treated, and felt pads *f*, interposed between the said elements, substantially as and for the purpose specified.

2. In a massage-kneader, the combination, with a frame A, of a bar C, permanently magnetized, and rotating disks mounted upon said bar, substantially as and for the purpose specified.

3. In a massage-kneader, the combination,

with a frame A and bar C, of electric elements
D, consisting of copper disks *d* and zinc disks
e, said disks being provided with nipples *g*
upon their periphery and being adapted to
5 be rolled over the surface to be treated, and
felt pads *f*, substantially as and for the pur-
pose specified.

4. The combination, with a frame A and a
bar C, permanently magnetized, of electric

elements D, mounted upon said bar, and felt ro
pads interposed between the said elements,
substantially as and for the purpose specified. •

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