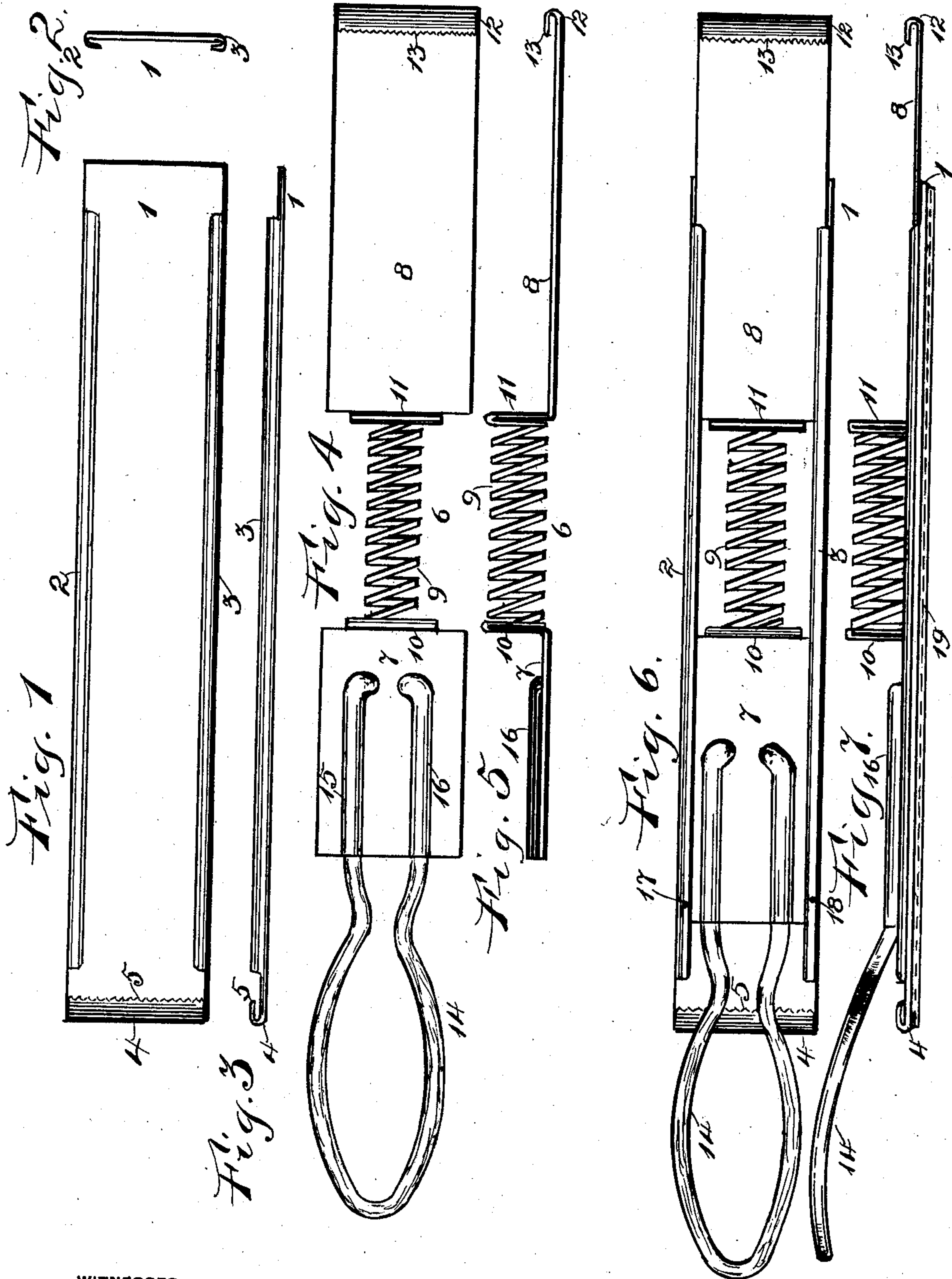


C. N. NELK.
 HOLDER FOR PLIANT RUBBING MATERIALS.
 APPLICATION FILED NOV. 21, 1910.

997,577.

Patented July 11, 1911.



WITNESSES
 Elmer Wickes
 Alexander Baum

INVENTOR
 Carl Nicholas Nelk
 By Frank P. Medina
 Attorney

UNITED STATES PATENT OFFICE.

CARL NICHOLAS NELK, OF PALO ALTO, CALIFORNIA.

HOLDER FOR PLIANT RUBBING MATERIALS.

997,577.

Specification of Letters Patent.

Patented July 11, 1911.

Application filed November 21, 1910. Serial No. 593,532.

To all whom it may concern:

Be it known that I, CARL NICHOLAS NELK, a citizen of the United States of America, residing at Palo Alto, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Holders for Pliant Rubbing Materials, of which the following is a specification.

My invention relates to the art of abrading and polishing surfaces and particularly to the means for holding pliant rubbing materials, such as emery cloth, sand paper and buckskin for abrading and polishing surfaces; and the object of my invention is to provide a new and useful holder for such materials, that will hold the same securely and handily and with a suitable degree of tension.

I accomplish my object by the means illustrated in the accompanying drawing, of which—

Figure 1 is a plan view of the bottom plate of my device; Fig. 2 an end view thereof; Fig. 3 a side elevation thereof; Fig. 4 a plan view of my expansible tightener; Fig. 5 is a side elevation thereof; Fig. 6 a plan view of my device with all the parts assembled and Fig. 7 a side elevation of my assembled device.

The same numeral of reference marks the same part throughout the various views.

My invention consists in the novel parts, combinations and arrangements described in the following description, illustrated in the accompanying drawing and particularly set forth in the claims.

Referring to the drawing, 1 is a bottom plate having the sides 2, 3, turned over to form flanges. One end of said plate as at 4, is turned over, and the edge of the turned-over portion terminates in teeth 5, a set thereof.

I provide a tightener 6, which consists of two plates 7, 8, joined by a means for drawing them together and pushing them apart, as the spring 9. The said plates are turned over at 10 and 11 respectively and the spring 9 suitably secured to the turned-over portion. The opposite end of plate 8 is turned over at 12 and the edge of the turned-over portion terminates in a set of teeth 13. Plate 7 is provided with a handle 14, which may be secured thereto by grooves 15, 16, in said plate, arranged substantially as shown, and fitted to pinch the handle. While the

handle is a great convenience, it is not absolutely necessary to the operation of my holder, as shown in the side elevation in Fig. 5, since my holder may be grasped in the hands at any portion thereof. Nevertheless, I claim the holder as an added improvement in facilitating the rubbing operation.

My holder is assembled by drawing the plate 7 through the flanges 2 and 3, substantially to the position shown in Fig. 6, where it is fixed in any suitable manner, as by the punch marks 17, 18. Spring 9 draws plate 8 along with plate 7, substantially in the position shown in Fig. 6, with its edge extending over the edge of plate 1, which figure shows the spring 9 in its expanded position.

In practice, a piece of soft material 19 is laid along the bottom of plate 1 between the surface thereof and the rubbing material.

Emery paper and sand paper are manufactured in standard sizes, which vary in some degree. My holder is constructed, therefore, of a size corresponding with the length of the sheets of material aforesaid, the variation being taken up by the expansion and contraction means described.

In applying a sheet of rubbing material to my holder, it is first cut to a width corresponding therewith, and thereupon one end of said sheet is formed on the turned-over portion 12. This formed end is then applied to the turned-over portion 4, and caused to engage the teeth 5. Spring 9 is contracted by drawing the portions 10 and 11 together by the thumb and finger. In the contracted position, the opposite end of the material is turned over the part 12 and caused to engage the teeth 13. Upon allowing the spring 9 to expand, the material is firmly secured by the teeth 5 and 13, and is held tightly against the bottom of plate 1 or the interposed felt 19. The overturned ends of plates 1 and 8 thus form catches with the sets of teeth with which they are provided and the spring forms a means for lengthening and shortening the distance between the sets of teeth.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States, modifications within the scope of the claims being expressly reserved, is:

1. A holder for any pliant rubbing material, comprising a plate, separable means

for securing said material at its ends and spring-operated means for holding the material against the bottom of said plate.

2. A holder for any pliant rubbing material, comprising a plate, a layer of soft material on the bottom of said plate, means for securing the rubbing material at its ends and spring-operated means for holding said rubbing material against said soft material.

10 3. A holder for any pliant rubbing material, comprising a plate, a piece of soft material on the bottom thereof, sets of teeth for securing the rubbing material at its end and spring-operated means for holding the

15 rubbing material against the soft material.
4. A holder for any pliant rubbing material, comprising a plate, a handle, a piece of soft material on the bottom of said plate, sets of teeth for securing the rubbing material at its ends and spring-operated means

20 for increasing and decreasing the distance between said sets of teeth.

5. A holder for any pliant rubbing material, comprising a bottom plate having the

25 side edges turned over to form flanges and

an overturned end provided with a set of teeth, a tightener comprising a plate fixed in said flanges and a plate slidable in said flanges having an overturned end provided with a set of teeth, and spring-operated means for lengthening and shortening the distance between said sets of teeth.

6. A holder for any pliant rubbing material, comprising a bottom plate having the side edges turned over to form flanges and an overturned end provided with a set of teeth, a tightener comprising a plate fixed in the flanges and a plate slidable in said flanges having an overturned end provided with a set of teeth, and a spring between said plates for lengthening and shortening the distance between said sets of teeth.

In testimony whereof, I have hereunto affixed my signature, at Palo Alto, in the county of Santa Clara and State of California, this sixteenth day of November, 1910.

CARL NICHOLAS NELK.

In the presence of—

FREDERICK SCHNEIDER,
PAUL L. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."