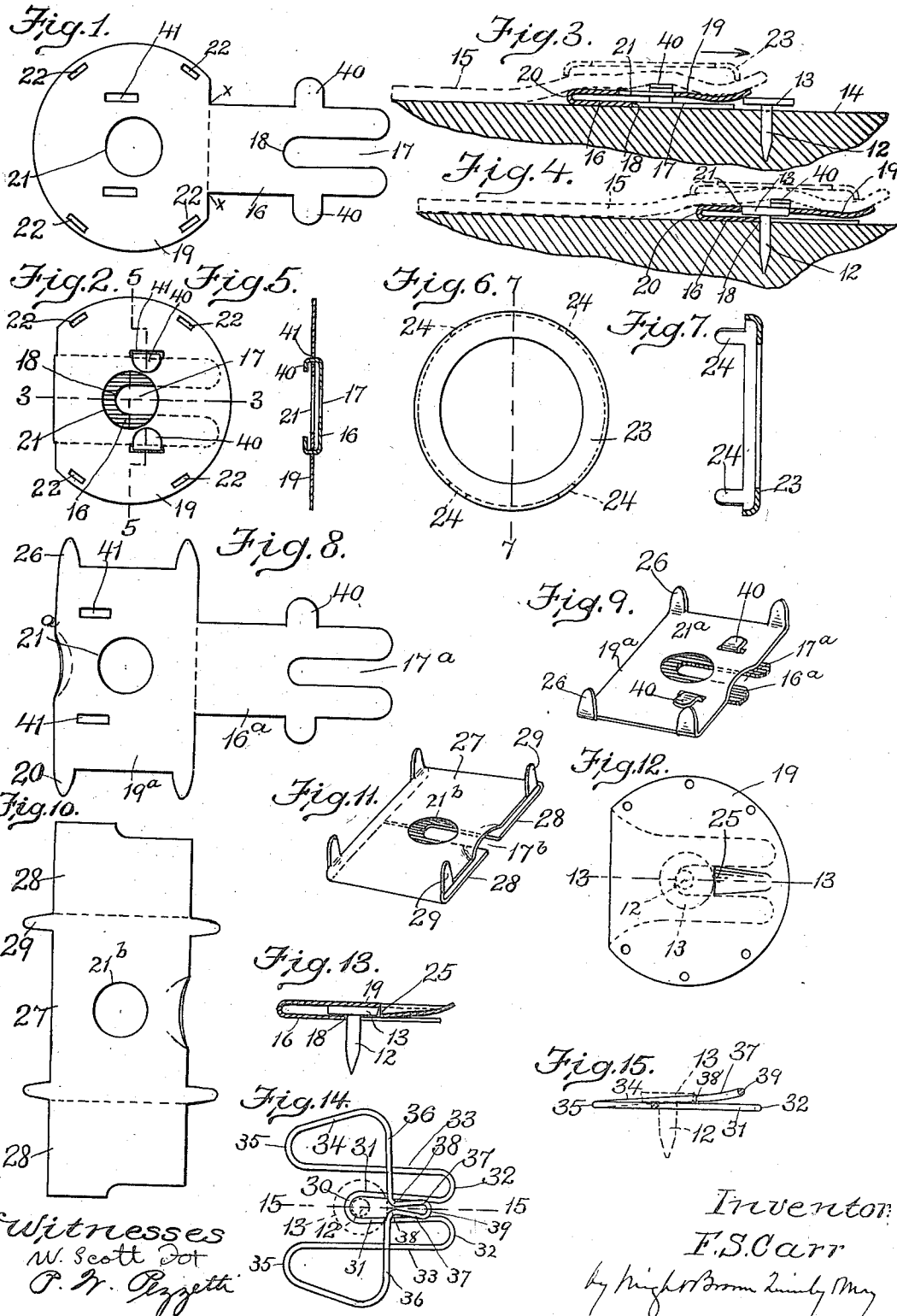


F. S. CARR.
FASTENER FOR RUGS, CARPETS, &c.
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1,041,238.

Patented Oct. 15, 1912.



UNITED STATES PATENT OFFICE.

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FASTENER FOR RUGS, CARPETS, &c.

1,041,238.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRED S. CARR, of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Fasteners for Rugs, Carpets, &c., of which the following is a specification.

This invention relates to means for detachably securing a flat flexible article such as a rug or carpet to a floor or other support in such manner that the flexible article, which for convenience I will hereinafter refer to as a rug, may be quickly secured to and detached from its support without liability of accidental detachment and without creating objectionable projections or protuberances at the securing points.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings:—Figure 1 represents a plan view of the blank from which a socket member embodying my invention may be made: Fig. 2 represents a view of a completed socket member made from the blank shown by Fig. 1: Fig. 3 represents a section on line 3—3 of Fig. 2, showing the commencement of the operation of engaging the socket member with a fixed stud member: Fig. 4 represents a view similar to Fig. 3 showing the socket member engaged with the stud member: Fig. 5 represents a section on line 5—5 of Fig. 2: Fig. 6 represents a plan view of a securing device for the form of socket member shown by Figs. 1 to 5: Fig. 7 represents a section on line 7—7 of Fig. 6: Fig. 8 represents a view similar to Fig. 1 showing a modified form of blank: Fig. 9 represents a perspective view of the socket member formed from the blank shown by Fig. 8: Fig. 10 represents another modified form of blank: Fig. 11 represents a perspective view of the socket member formed from the blank shown by Fig. 10: Fig. 12 represents another form of socket member embodying the invention: Fig. 13 represents a section on line 13—13 of Fig. 12: Fig. 14 represents a plan view showing a socket member embodying my invention made of wire: Fig. 15 represents a section on line 13—13 of Fig. 12.

The same reference characters indicate the same parts in all the figures.

In Figs. 1 to 13 inclusive, I have shown socket members embodying my invention

composed of sheet metal, while in Figs. 14 and 15 I show the socket member composed of wire. In each case, the socket member is adapted to coöperate with a fixed stud member which may be a tack or nail comprising a shank 12 and a flat head 13, the shank being driven partly into the support such as a floor 14, and with its head separated from the floor by narrow space sufficient to receive the forked base hereinafter described of the socket member. In each embodiment of the invention, the socket member is attached to the under side of the rug 15 near the edge of the same, the rug being represented by dotted lines in Figs. 3 and 4.

Referring to Figs. 1 to 5 inclusive, 16 represents the forked base of the socket member, the same being a part of a sheet metal blank which may be of the form shown by Fig. 1, and containing a slot 17 which is open at one end of the blank and has a closed end constituting an abutment 18. 19 represents a resilient head which overhangs the base and, as here shown, is integral therewith, the base and head being formed in a single blank which is bent along the line *x, x*, Fig. 1, to cause the head to overhang the base and form a neck 20 connecting the head and base. The head 19 is provided with a central orifice 21, the diameter of which is slightly larger than that of the stud head 13, said orifice being adapted to receive the stud head, as shown by Fig. 4. The head 19 may be attached to the rug 15 by any suitable means such as by stitches (not shown) passed through the rug and through orifices 22 formed in marginal portions of the head, or by a sheet metal clamping ring 23, having prongs 24 adapted to enter the orifices 22, and to be clenched against the under side of the head 19, the ring being placed on the outer side of the rug, as indicated by Fig. 3. The resilience of the socket member normally holds the opposed sides of the head 19 and base 16 separated by a space which is narrower than the thickness of the stud head 13 so that said space must be widened to permit the stud head to be received between the socket head and base. When it is desired to engage the socket member with the stud member, the socket member, placed on the support 14 in the position shown by Fig. 3, is moved edgewise with the rug 15 toward the stud

member, the socket member being guided so that its arms, formed by the slots 17, pass under the stud head 13 at opposite sides of the shank 12, the outer end of the head 19 at the same time bearing on the upper side of the stud head, so that, as the movement of the socket member progresses in the direction indicated by the arrow, Fig. 3, the outer end of the socket head rides over the outer surface of the stud head until the socket member reaches the position shown by Fig. 4, when the resilience of the socket member causes the socket head 19 to spring inwardly, the orifice 21 being at the same time caused to embrace the stud head 13. The described movement of the socket member brings the inner end or abutment 18 of the slot 17 under the stud head 13, and to a bearing on one side of the shank 12. It will be seen that the described engagement between the socket and stud members prevents edgewise movement of the socket member in any direction. It will also be seen that the socket member may be disengaged from the stud member by simply raising the outer end of the socket head 19 until the orifice 21 is lifted out of engagement with the stud head 13, and then moving the socket member in a direction opposite to that indicated by the arrow, Fig. 3. The described construction provides a fastener occupying so little vertical space above the floor or support 14 that its presence under a rug 15 is not objectionable and does not in practice elevate the rug sufficiently to cause a noticeable protuberance.

To limit the springing of the head 19 away from the base 16, I show the base provided with ears 40, which extend through slots 41 in the head, and are bent, as shown by Fig. 5, to overhang the head and form stops permitting only a limited separation of the head from the base.

Fig. 9 shows a modified form of socket member composed of a head 19^a having an orifice 21^a and a forked base 16^a, having a slot 17^a, the head and base being made from the blank shown by Fig. 8. The head is provided with prongs 26 adapted to penetrate the rug and secure the head thereto.

Fig. 10 shows a differently formed blank, and Fig. 11 a socket member made therefrom. The blank is composed of a central portion 27 forming the socket head and having an orifice 21^b corresponding to the orifice 21, and end portions 28 which are bent under the portion 27, their ends being shaped to form a slot 17^b corresponding to the slot 17. The portion 27 is provided with attaching prongs 29.

In Figs. 12 and 13 I show a modification in which the orifice 21 in the head 19 is omitted, and an embossed shoulder 25 is substituted therefor, the construction being in other respects the same as that described

with reference to Figs. 1 and 2. In this modification, the shoulder 25 is formed to spring into engagement with one side of the stud head 13, the abutment 18 being arranged to bear on the opposite side of the stud shank 12, provision being thus made for preventing edgewise movement of the socket member in any direction.

In the embodiment of my invention represented by Figs. 14 and 15, the head and base are composed of wire, the base comprising a neck 30, inner arms 31, 31, extending therefrom, and necks 32 connecting the outer portions of the arms 31 with outer arms 33, 33. The parts above enumerated constitute an equivalent of the sheet metal base 16 with its slot 17, the arms 31 constituting the sides of the slot, and the neck 30 being a substitute for the abutment 18. The socket head in this embodiment of the invention is composed of inclined portions 34, 34, of the wire connected by necks 35, 35, with the arms 33, transverse wire portions 36, 36, bent inwardly from the inclined portions 34, and wire portions 37, 37 bent abruptly outward from the portions 36 to form shoulders 38, said portions 37 being inclined relatively to the base and being connected by a neck 39. The shoulders 38 constitute an equivalent of the shoulder 25. The wire socket member is moved into engagement with the stud member substantially in the manner described with reference to Figs. 2, 3 and 4, the inner arms 31 being guided under the stud head 13 and at opposite sides of the shank 12, and the inclined head portions 37 riding over the outer side of the stud head until the portions 38 are in position to spring downwardly into engagement with one edge of the stud head, the neck 30 at the same time coming to a bearing on the opposite side of the stud shank. The wire socket member may be conveniently attached to the rug by stitches or otherwise.

In each of the above-described embodiments of my invention, the socket head has a shoulder adapted to spring into engagement with the stud head and either entirely embrace the stud head, as shown by Figs. 1 to 11, the shoulder being the wall of a circular orifice, or to bear on one side of the stud head, as shown by Figs. 12, 13, 14 and 15. In each of said embodiments the socket member, when engaged with the stud, is not separable therefrom by a horizontal or edgewise movement of the socket member, the locking engagement between the socket and stud members positively resisting horizontal or edgewise movement of the socket member so that the members of the fastener are not liable to be accidentally separated by a horizontal strain on a carpet or rug secured thereby. It is necessary before separating the members of the fastener

to move the shoulder of the socket head outwardly from the stud head, and this movement cannot be effected by horizontal pressure of the shoulder against the stud head, but must be effected manually by springing the socket head outwardly until its shoulder is above the stud head. This result may be conveniently accomplished by grasping the edge of the rug or carpet and raising it slightly from the floor, the socket head being slightly raised at the same time. In each of the described embodiments of the invention the stud engaging shoulder on the socket head is adapted to be disengaged from the stud head by lifting the edge of the rug.

I claim:

1. A fastening member comprising a base provided with spaced apart arms adapted to be inserted beneath the head of a fixed stud and to straddle the shank of said stud, and a resilient head overhanging said base and arms and having a shoulder adapted to engage the stud head to positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

2. A fastening member comprising a base having a slot which is open at one end of the base and has a closed inner end, adapted to straddle the stem of a fixed stud beneath the head thereof, and a resilient head flexibly connected with the base and having an outer end portion adapted to bear on the top of the stud, and a head-engaging shoulder at the inner end of said portion, adapted to spring automatically into engagement with the margin of the stud head and positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

3. A fastening member comprising a

forked base having spaced apart arms adapted to be inserted under the head of a fixed stud and to straddle the shank of the stud, and a resilient head flexibly connected with the base and overhanging the base and slot, and having an orifice, the wall of which forms a continuous annular shoulder adapted to spring automatically into engagement with and embrace the margin of the stud head and positively lock the fastening member against edgewise movement, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

4. A fastening member comprising a forked base having spaced apart arms adapted to be inserted under the head of a fixed stud to straddle the shank of the stud, and a resilient head flexibly connected with the base and overhanging the base and slot, and having a shoulder adapted to spring automatically into engagement with the margin of the stud head, said resilient head and said stud head being approximately in the same plane when said shoulder and stud head are in engagement.

5. A fastening member comprising a forked base having arms adapted to be inserted under the head of a fixed stud and separated by a slot adapted to receive the shank of the stud, said slot having an open mouth and a closed inner end, and a resilient head flexibly connected with the base and overhanging the base and slot, and having a shoulder adapted to spring into engagement with the margin of the stud head, the base being provided with stop ears and the head with slots receiving said ears.

In testimony whereof I have affixed my signature, in presence of two witnesses.

FRED S. CARR.

Witnesses:

C. F. BROWN,
P. W. PEZZETTI.