

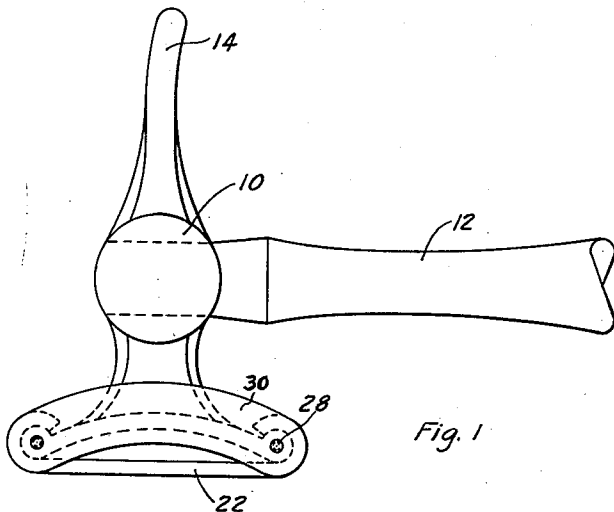
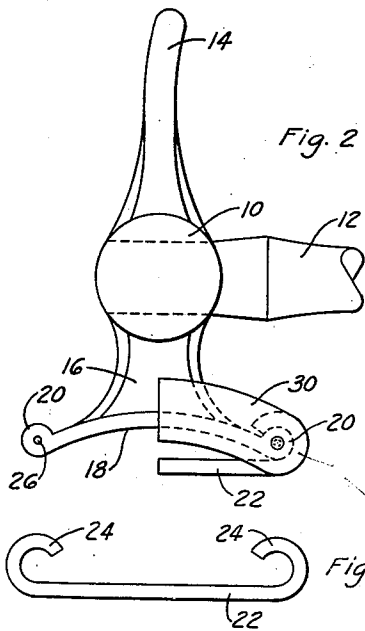
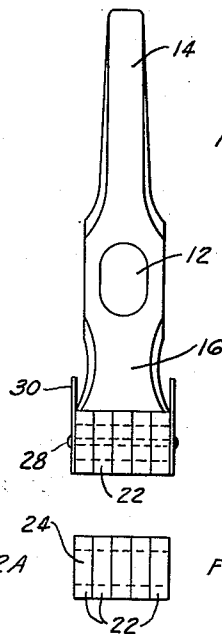
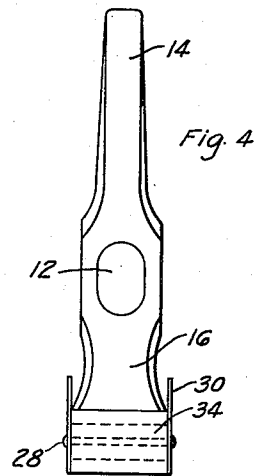
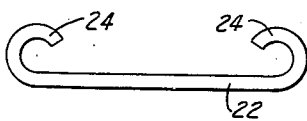
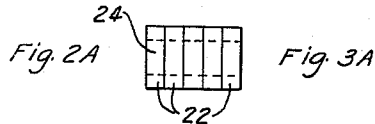
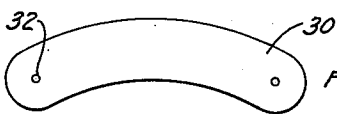
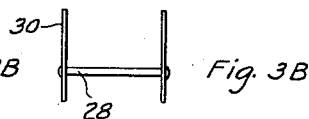
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IMPACT TOOL WITH RESILIENT STRIKING SURFACE

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IMPACT TOOL WITH RESILIENT
STRIKING SURFACE

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5 Claims. (Cl. 81-15)

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This invention relates to impact tools useful in removing indentations from sheet metal. It relates more particularly to hammers, having novel head constructions, which are especially useful for straightening out deformed automobile fenders, bodies, or the like.

Various hammers, both hand and pneumatic types, are now used in straightening out deformed sheet metals such as automobile fenders. Such hammer heads usually have a solid rectangular face and when the metal is hammered, while being supported by an anvil (sometimes referred to as "dolly") on the opposite side of the metal, a dimpling effect will be obtained on the hammered metal surface. In order to obtain a smooth metal surface after such shaping by hammering, the metal is generally filed with metal files until the surface is substantially smooth. The filing will diminish the thickness of the sheet and consequently weaken the metal.

It is therefore the object of my invention to make a hammer which may be used in hammering deformed sheet metal into a substantially smooth sheet. Another object is to provide a hammer which may be used in hammering deformed sheet metal into such smooth surfaces that substantially no subsequent filing of the metal is required to obtain a satisfactory smooth surface. An additional object is to provide a hammer of such construction that the work of smoothing deformed metal surfaces may be accomplished in less time than is now accomplished with conventional metal working tools.

The aforesaid objects of my invention are accomplished by using impact tools, either hand or pneumatic hammers, utilizing a hammer head which is constructed with a recessed face and a resilient striking member, which may consist of one or more elements mounted on one of the edges of the recessed face and extending across the recess to the opposite edge, thus forming a hollow space between the recessed face and the resilient striking member. Upon hitting a surface with the resilient striking member, the member tends to momentarily flex inwardly toward the hollow recess and then immediately rebound outwardly toward the struck surface.

In the drawings

Figure 1 is a side elevation of a hand hammer embodying the present invention.

Figure 2 is a side elevation, partially broken away, of a hammer embodying the present invention and Figures 2A and 2B illustrate in exploded views the component parts making up the hammer head illustrated in Figure 2.

Figure 3 is a front elevation of Figure 2 and Figures 3A and 3B illustrate in exploded views the end views of component parts of the hammer head illustrated in Figure 3.

Figure 4 is a front elevation of a modified hammer head.

Referring to detail in the drawings, Figures 1 and 2 show side elevations of a hand hammer having hammer body portion 10, handle 12, peening edge 14 and hammer head 16. Face 18 of hammer head 16 is recessed and the ends 20 of the recessed face are enlarged for a purpose described below.

A resilient striking member 22 (Figure 2A), with reversely or backwardly bent ends 24, is mounted on the enlarged ends 20 of the hammer head. The enlarged ends 20 are provided with holes 26 through the body portions thereof. Pins 28 are inserted through holes 26 and plates 30 (Figure 2B) are mounted on each side of the striking element 22 and held in place by inserting pins 26 through holes 32 of the plates.

The resilient striking member 22 is preferably made of carbon spring steel or similar resilient material. It may be made in a single solid piece 34 as illustrated in Figure 4 or preferably in a multiple number of separate elements placed parallel and in juxtaposed or adjacent position to each other as illustrated in Figures 3 and 3A. In Figure 3 the resilient member 22 is made up of five elements placed side to side; the number of elements may be increased or decreased depending on the size of the hammer head and the use to which the hammer is applied. The ends 24 of member 22 are reversely bent and such reversely bent portions serve to movably and loosely hold the striking member on the enlarged ends 20. The enlarged ends 20 are preferably rounded although other shapes may suitably be used.

The recessed portion in hammer face 18 is preferably arcuate in shape as shown although angular recesses may be used with satisfactory results.

In use, when an indented piece of metal is struck with the hammer, the resilient member 22 will flex inwardly toward the recessed face 18 tending to close the hollow space between face 18 and member 22. Immediately thereafter, the spring action of member 22 will cause the member to flex outwardly again. This inward and outward action imparts a springlike action and resilience to the hammer head.

Hammer heads constructed in accordance with the present invention may be used on impact tools generally such as pneumatic hammers, hand hammers and the like.

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Although I have shown and described herein the preferred embodiments of my invention, it is to be understood that the invention is not limited thereto, and any change or changes may be made in materials, in the structure and in the arrangement of parts within the scope of the attached claims.

I claim:

1. An impact tool comprising a hammer head having a recessed face and rounded portions positioned at opposite ends of said recess, and a resilient striking member movably mounted and held in position on one of said rounded portions, said mounted resilient striking member extending from said rounded portion, serving as a mount for the member, across the recess to the rounded portion at the opposite end of the recess thus forming a hollow space between the recessed face and the striking member.

2. An impact tool comprising a hammer head having a recessed face and rounded portions at opposite ends of said recess, a resilient striking member movably mounted on said rounded portions extending across the recessed face of the hammer head thus forming a hollow space between the recessed face and the striking member, and means on opposite sides of the recessed face mounted on pins extending through said rounded portions to hold said resilient member in position.

3. A hammer for removing indentations from metal which comprises a handle and a hammer body having a hammer head at one end of the body, said hammer head including a recess in the hammer face and rounded portions at opposite ends of said recess, a resilient striking member movably mounted on one of the rounded portions and extending across the recess in the hammer face to the rounded portion

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at the opposite end thus forming a hollow space between the recessed face and the striking member, and means on opposite sides of the recessed face mounted on pins extending through the rounded portions to hold the resilient member in position.

4. A hammer as defined in the claim 3, and wherein the resilient striking member includes at least two elements positioned parallel and adjacent to each other.

5. A hammer for removing indentations from metal which comprises a handle and a hammer body having a hammer head at one end of the body, said hammer head including an arcuately shaped recess in the hammer face and rounded portions at opposite ends of said recess, a resilient striking member including a multiplicity of parallel elements movably mounted on said rounded portions extending across the recess forming a hollow space between the elements and the recessed face, pins extending through the rounded portions, and plates mounted on said pins positioned parallel to the sides of the striking member.

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