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LIFTING TOOL FOR CYLINDER HEADS

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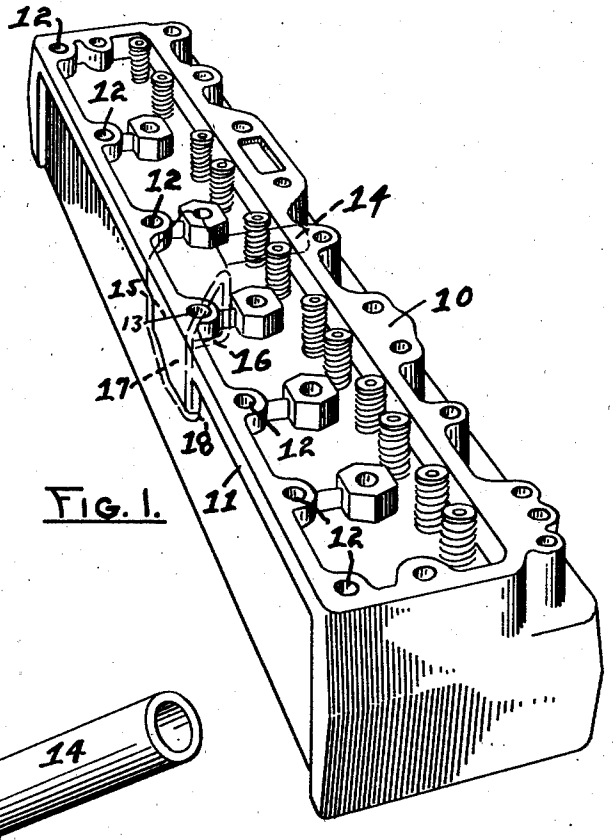


FIG. 1.

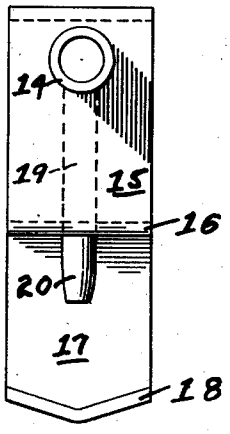


FIG. 3.

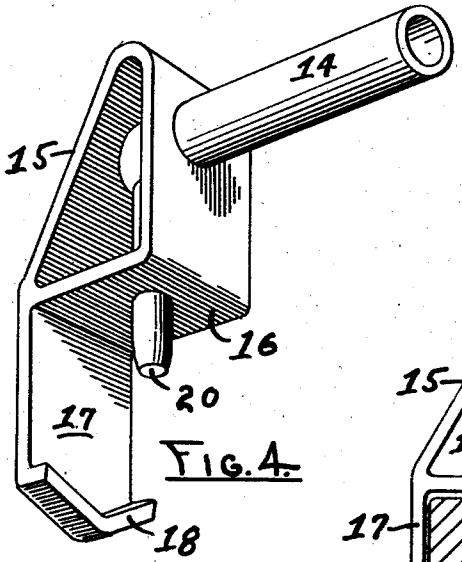


FIG. 4.

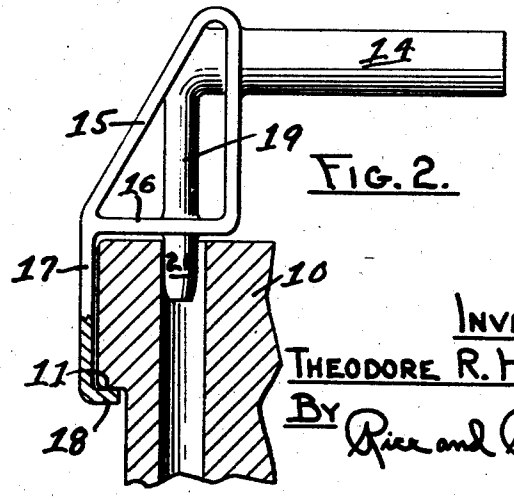


FIG. 2.

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LIFTING TOOL FOR CYLINDER HEADS

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2 Claims. (Cl. 294—15)

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The present invention relates to a tool and more particularly to a tool for manually lifting and removing a cylinder head of an internal combustion engine from its block.

The primary objects of the instant invention are to provide a tool of the general character above indicated which is highly efficient in its intended use; to provide such a tool which is simple yet rugged and sturdy in construction; to provide such a tool which is light in weight; and, to provide such a tool which is reasonably economical in manufacture.

Cylinder heads of internal combustion engines are relatively heavy and because of their weight and in instances wherein it is necessary to remove one from its block, it is a considerable undertaking and frequently requires the efforts of two men. Attempts at removal of an internal combustion engine cylinder head by one person frequently results in injured fingers or thumbs. The tool of the instant invention is so devised that one person using the same may readily and conveniently remove such a head from its block.

An illustrative embodiment of the invention is shown in the accompanying drawing, wherein:

Figure 1 is a perspective view of a cylinder head of an internal combustion engine, the tool of the instant invention for removing it from its block being shown in dotted lines in its manually disposed position with respect to the head;

Figure 2 is an enlarged side elevational view of the tool, partly in section, in its manually disposed position with respect to the cylinder head;

Figure 3 is an end elevational view of the tool; and

Figure 4 is a perspective view thereof.

Referring then to the drawing wherein like parts of the tool and cylinder head shown are designated by the same numerals in the several views, an elongated internal combustion engine cylinder head, generally designated 10, is provided with a longitudinally disposed overhanging lip 11 along one upper length thereof and with a plurality of vertical bolt receiving bores 12, 13 inwardly of the lip 11 whereby the head is secured to its block, the bore 13 being disposed medially of the length of the head 10.

The tool per se of the present invention comprises a horizontally disposed handle 14 to one end of which is secured an open triangularly formed depending head 15 having a base 16 in parallelism with the handle and a tongue 17 depending from the outer end of the head is provided at its lower end with an inwardly triangularly flanged portion 18.

A stud 19 depending at right angles from the

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inner end of the handle 14 and within the triangularly formed head 15 has a tip portion 20 projecting through its base 16 and is of a diameter adapted for insertion within the bolt receiving bore 13 of the cylinder head 10.

In use and in instances wherein it is desired to remove a cylinder head 10 from its block, the securing bolts, not shown, are first removed from their bolt receiving bores 12, 13 after which the tip portion 20 is inserted within the bore 13 and the flanged lower end 18 of the tongue 17 is tilted under the lip 11 of the head 10 as best shown in Figure 2.

Since the bore 13 is medially disposed with reference to the length of the cylinder head 10 and since the handle 14 of the tool projects inwardly from one outer length of the head, the head is balanced when being manually lifted from its block and may thus be readily and conveniently removed by one person without danger of injury to the fingers or thumbs of its user.

It will thus be seen that the tool herein shown and described is highly efficient in its intended use, is simple yet rugged and sturdy in construction, is light in weight and is reasonably economical in manufacture.

While but one specific embodiment of the invention has been herein shown and described, it will be understood that certain details of the construction shown may be altered or omitted without departing from the spirit of the invention as the same is defined by the following claims.

I claim:

1. A tool of the class described comprising a handle, a depending head having a base in parallelism with the length of the handle, a stud depending from the base at right angles thereto, and a tongue depending from the base at right angles thereto in spaced relation to the stud and having an inwardly flanged portion in parallelism with the length of the handle.

2. A tool of the class described comprising a handle, a depending head having a base in parallelism with the length of the handle, a stud depending from the base at right angles thereto adapted for insertion within a vertical bore of an internal combustion engine cylinder block, and a tongue depending from the base at right angles thereto in spaced relation to the stud and having an inwardly flanged portion in parallelism with the length of the handle adapted for engagement under an overhanging lip adjacent the outer edge of the block whereby the block may be removed from its base.

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