United States Patent [19]

Komorek

[11] **3,754,312**

[45] **Aug. 28, 1973**

[54] **RING COMPRESSOR**

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[52] **U.S. Cl.** ..... **29/200 P**, 29/222
[51] **Int. Cl.** **B23p 19/00**, B23p 15/10
[58] **Field of Search** ..... 29/200 P, 222, 200 R, 29/200 J

[56] **References Cited**

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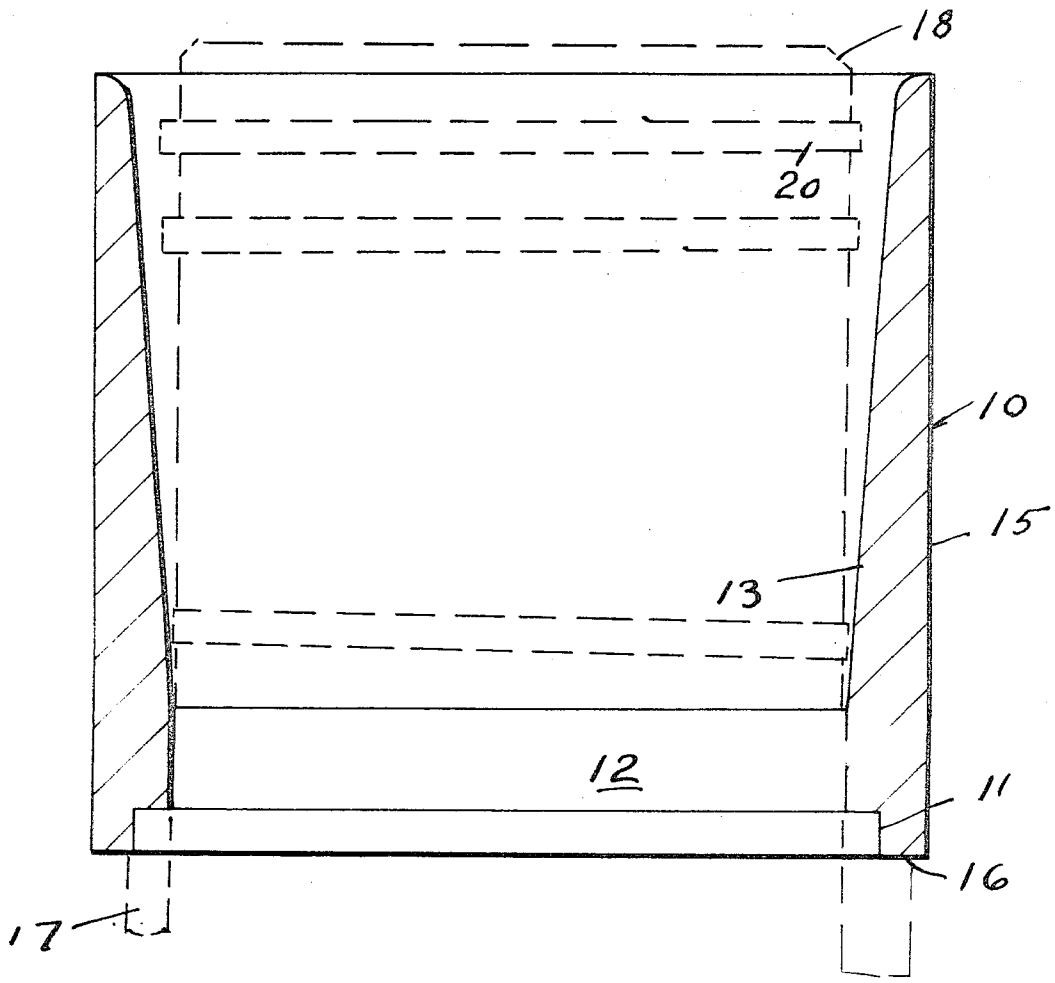
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Attorney—Charles L. Lovercheck

[57] **ABSTRACT**

A ring compressor especially suitable for use in installing pistons with rings in removable cylinders of internal combustion engines, pumps and the like. The compressor is made of a cylindrical tube having an inside bore with an inside diameter that is substantially equal to the inside diameter of the sleeve in which a piston is to be installed. The bore of the compressor flares out to a larger diameter at its distal end and has a counterbore that is suitable to receive the end of the cylinder on the engine. The counterbore can rest on the end of the cylinder of the engine to line up the bore of the compressor with the cylinder so that the piston with rings on it slides smoothly into place through the compressor.

1 Claim, 2 Drawing Figures



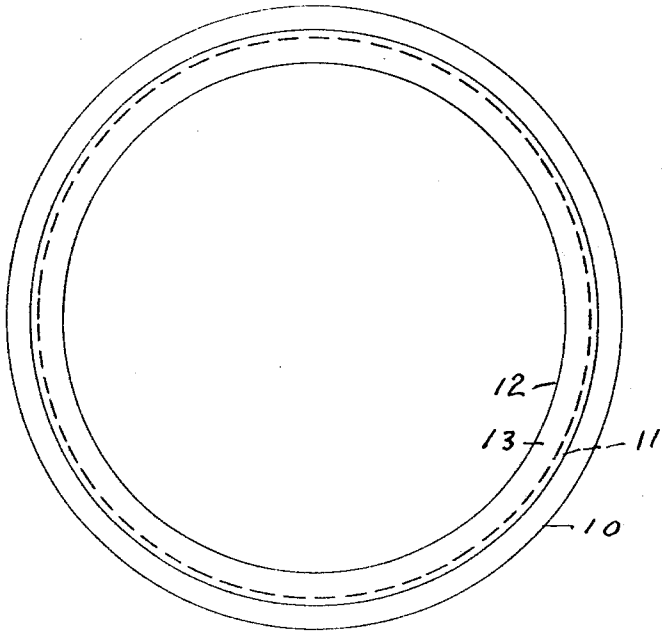


FIG 1

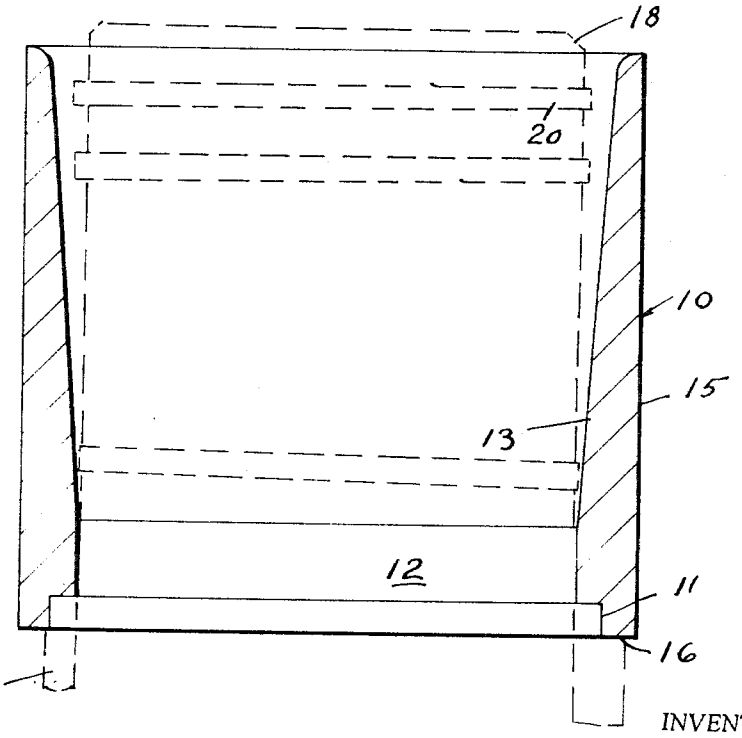


FIG 2

INVENTOR.

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RING COMPRESSOR

OBJECTS OF THE INVENTION

It is an object of the invention to provide an improved ring compressor.

Another object of the invention is to provide a ring compressor that is simple in construction, economical to manufacture, and simple and efficient to use.

Another object of the invention is to provide a ring compressor especially suitable for installing pistons with rings on them into sleeves of removable sleeve-type engines.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

GENERAL DESCRIPTION OF THE DRAWINGS

FIG. **1** is a top view of the ring compressor according to the invention.

FIG. **2** is a longitudinal cross sectional view of the ring compressor supported on a cylinder shown in phantom.

DETAILED DESCRIPTION OF THE DRAWINGS

Now with more particular reference to the drawings, the ring compressor shown has an outside generally cylindrical wall **15** and an inside bore that is counterbored at **11** to receive the end of the sleeve of an engine. A part of the bore of the compressor indicated at **12** adjacent the counterbore is cylindrical and approximately equal to the bore of the engine cylinder. The inside bore of the compressor then flares outwardly at **13** to an amount approximately equal to the thickness of the piston ring so that when a piston indicated at **18** is to be inserted in the cylinder **17** of an engine, the compressor **10** is rested on the end of the cylinder **17**, with the end of the cylinder received in the counterbore **11**. The piston **18** is then dropped into the top of the compressor and upon movement of the piston through the compressor the piston rings **20** will engage the inside of the bore of the compressor and be compressed so that they move smoothly through the cylindrical part **12** of the compressor and into the cylinder **17**.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiment of the invention in which an exclusive property or privilege is claimed is defined as follows:

1. A ring compressor comprising a generally cylindrical body having a counterbore in one end adapted to receive the end of a cylinder in which rings are to be installed,

the inside diameter of said compressor adjacent said counterbore being cylindrical for a substantial distance and being of substantially equal inside diameter to the diameter of said engine cylinder,

the inside diameter of said compressor increasing gradually toward the distal end thereof and the distal end of said compressor being flared whereby a piston having rings thereon can be inserted in said compressor, moved into said cylinder, and the said rings on said piston being compressed uniformly to slide into said cylinder.

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