

anti-corrosion treatment and be coated with a heat-resisting varnish to form a protection in particular where a closed water circuit is being sealed.

- 5 In addition to the crimps previously mentioned and provided to seal off apertures, there may be further crimps introduced where necessary to reduce or obviate distortion, such crimps in themselves performing no sealing action, but improving the seal in other places by reason of their anti-distortion effect.

- 10 One embodiment of the invention will be described by way of example, as applied to a cylinder head gasket for a motor car internal combustion engine. The gasket is formed of steel .015 in. in thickness and of 150 V.P.N., and round each aperture registering with the cylinder bores is a crimp having a width at its base of .075 in., and a total height (including the thickness of the gasket) of .043 in.
- 15 These dimensions are selected to give the requisite seal at a loading of 65 lbs./ft.

- 20 Other apertures requiring seals to withstand lower pressures are those for push-rods, oil pressure feed and drain connections, and water passages. For each of these a subsidiary crimp is provided, the total height, including the thickness, being .030 in.

- 25 In addition, between each pair of bore apertures, and at each end of the gasket, there is an anti-distortion crimp located transversely and being slightly less in length than the diameter of the bores. The total height of these crimps, including the thickness, is .030 in.
- 30 These anti-distortion crimps ensure that with uniform loading on the cylinder head studs the

head itself is not distorted.

The following table shows the relation between loading and dimensions, where

t = thickness of gasket
h = height of crimp
w = width of crimp

40

Load in lbs/ft.	w
	t + h
40	2.1
50	2.00
60	1.85
65	1.75
80	1.53

45

When plotted, these figures give a straight line graph from which may be evaluated the dimensions of a crimp for a cylinder bore, the loading and requisite thickness of gasket being known.

50

It has been found that with gaskets according to the invention the crimps maintain a resilience after fitting, thus promoting an efficient seal.

55

It is to be understood that the size, number, contours, dimensions and other characteristics of the gasket and its crimps are dependent on the design of the cylinder head or other assembly to be sealed.

60

A. M. & WM. CLARK,
Chartered Patent Agents,
Quality House, 5—9, Quality Court,
Chancery Lane, London, W.C.2.