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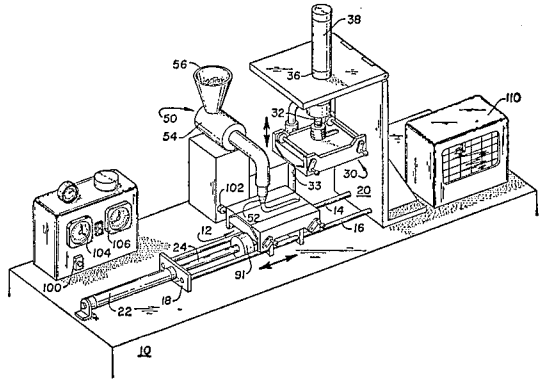
916. O.G. 1212

T916,005

ADHESIVE BOND TESTING APPARATUS

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U.S. Cl. 73—150 A
4 Sheets Drawing. 8 Pages Specification



Apparatus is disclosed for determining physical properties such as bond strength, shear strength, peel strength, etc., of an adhesive bond between two substrates. The apparatus comprises a pair of cooperating carriages to which workpieces are secured and means for applying a controlled amount of adhesive to one of the substrates. The apparatus further includes apparatus for bringing the substrates together so they will contact in the area of the applied adhesive and holding in that position for a predetermined length of time while measuring the applied force maintaining the substrates together. Means are also provided for measuring the magnitude of force required to separate the substrates in any of several directions to measure, for example, bond strength, shear strength or peel strength. Load cells are convenient means for determining the separation force. The apparatus is especially adapted for use with hot melt adhesives.

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ADHESIVE BOND TESTING APPARATUS

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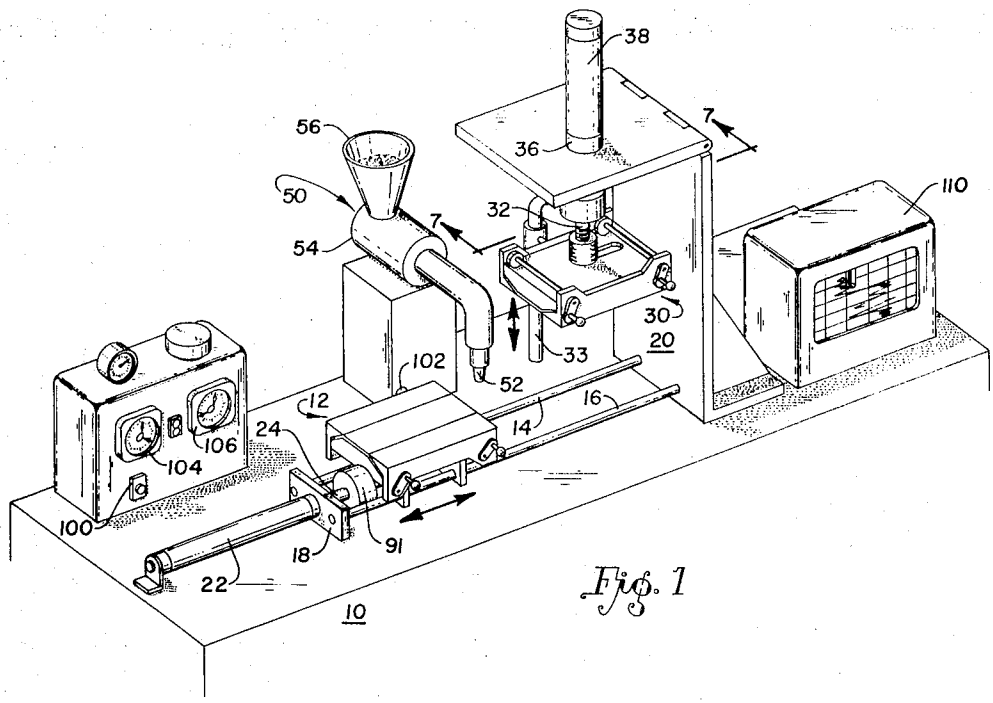


Fig. 1

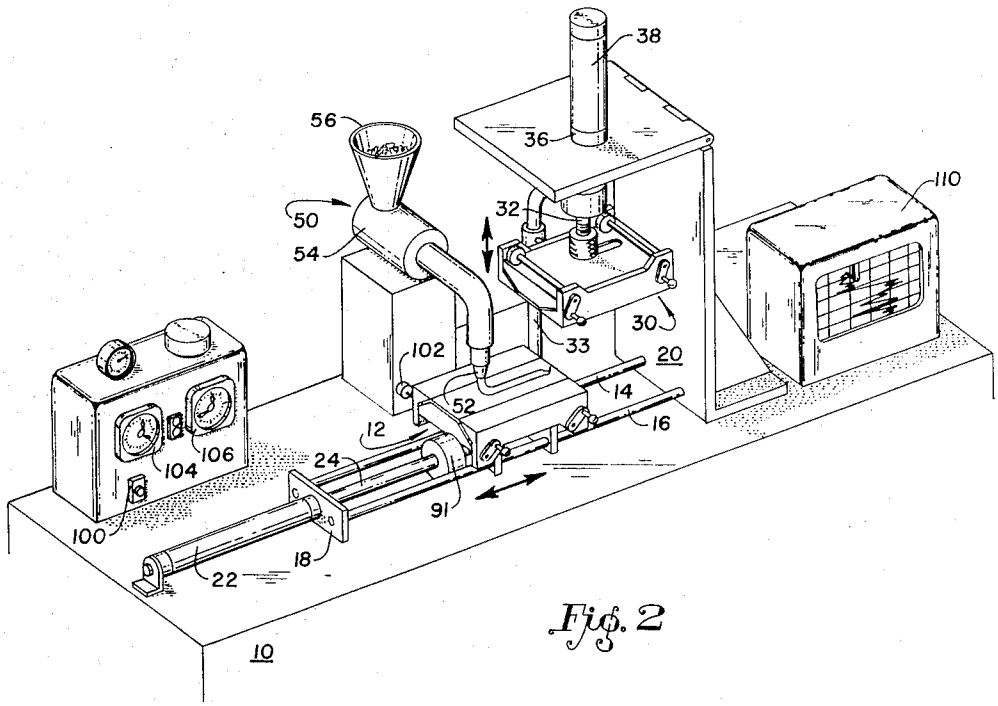


Fig. 2

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ADHESIVE BOND TESTING APPARATUS

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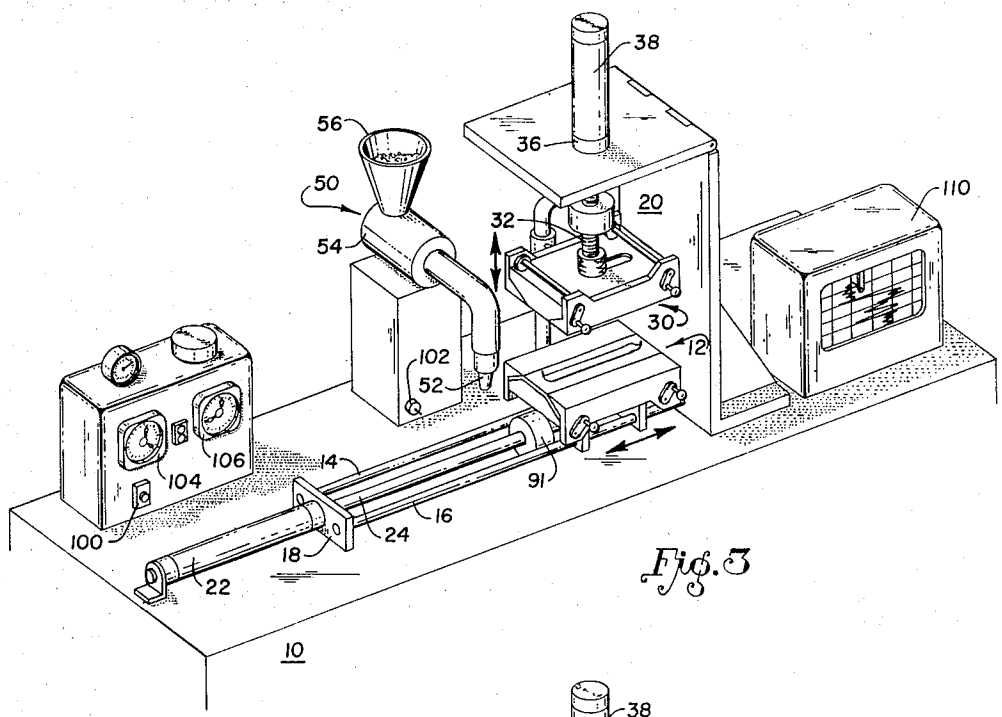


Fig. 3

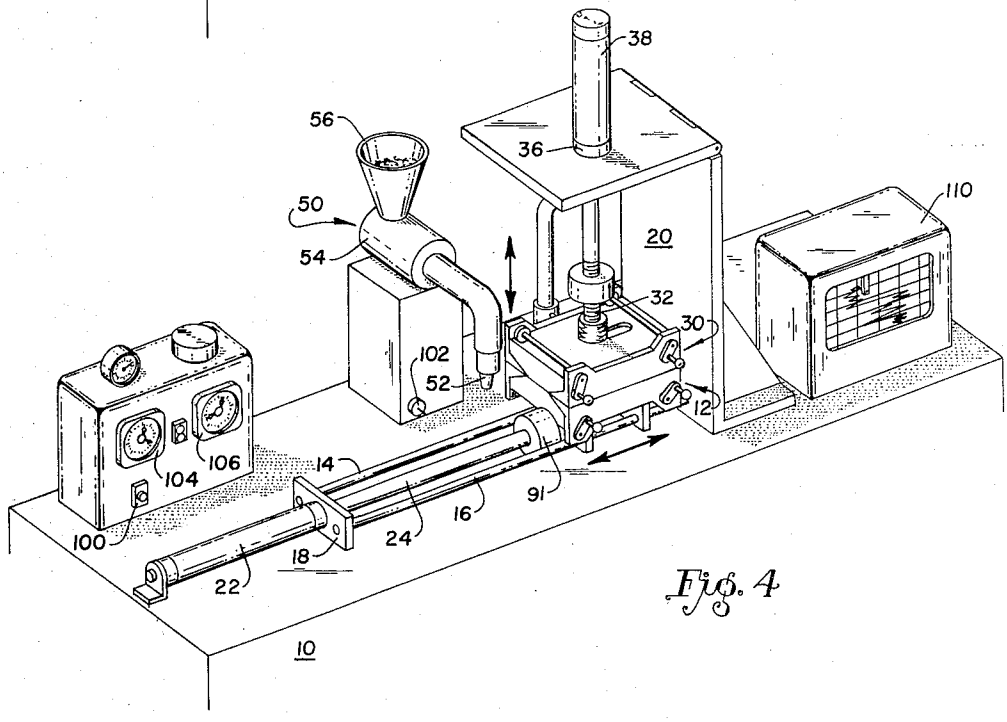


Fig. 4

ADHESIVE BOND TESTING APPARATUS

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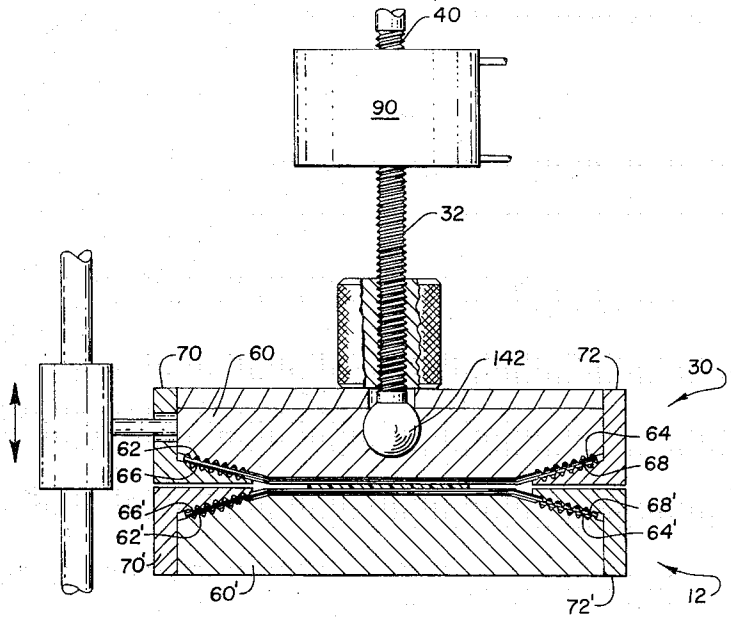


Fig. 5

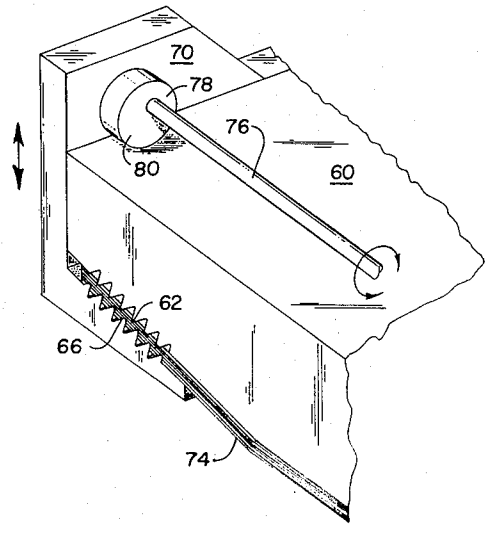


Fig. 6

ADHESIVE BOND TESTING APPARATUS

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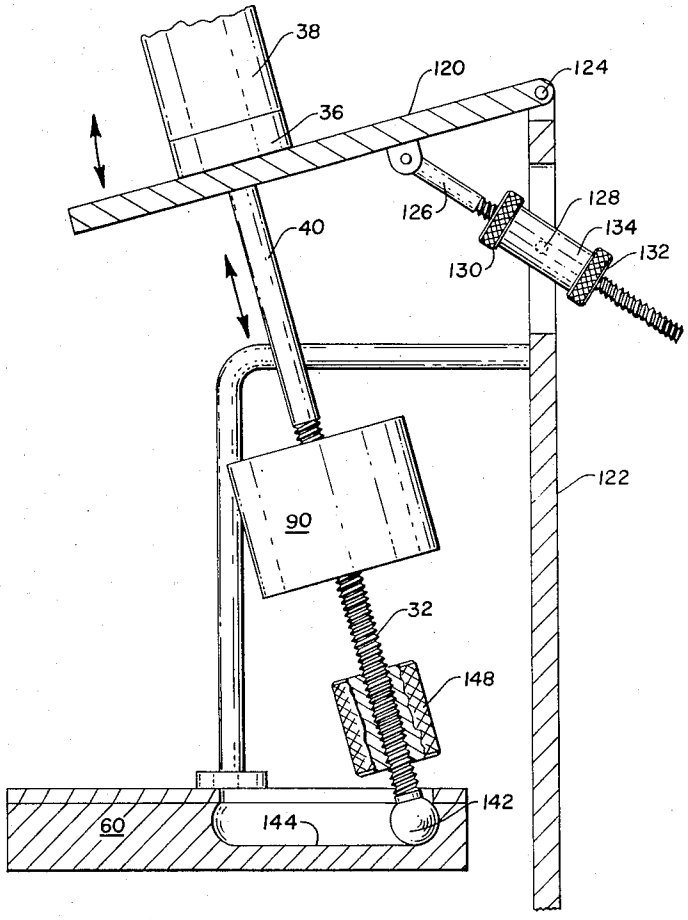


Fig. 7