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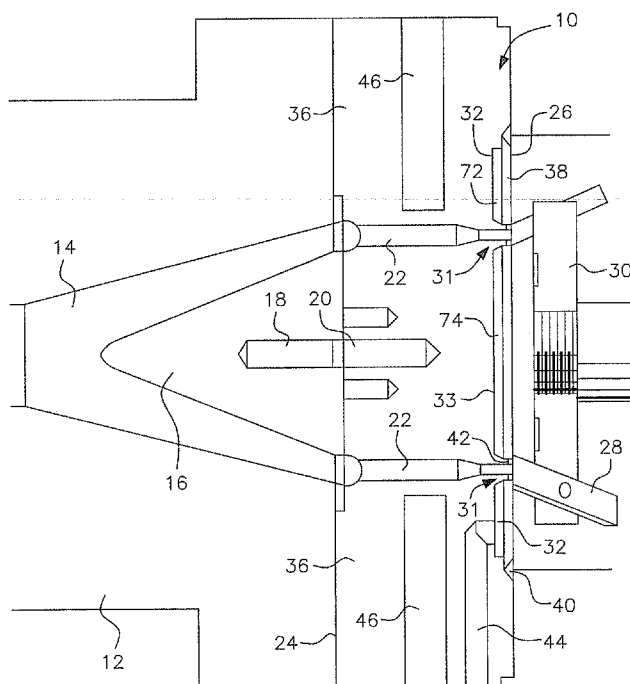
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(54) Title: THERMALLY INSULATED DIE PLATE ASSEMBLY FOR UNDERWATER PELLETIZING AND THE LIKE

FIG. 1

(57) Abstract: An insulated die plate assembly (10) for use in underwater pelletizing and other granulation processes includes a thin, continuous air chamber (32) formed across the plate assembly generally parallel to the die face (26) such that the heated upstream portion of the die plate assembly is thermally insulated from the downstream portion. The air chamber is atmospherically equilibrated by venting the air chamber to the atmosphere. The plurality of extrusion orifices, either individually or in groups, are formed in extrusion orifice (22) extensions that extend through the insulation chamber so that the process melt to be granulated can pass therethrough. The orifice extensions and the components forming the air chamber around the orifice extensions (31) are specially configured to channel heat along said extensions to maintain the process melt therein at a desired temperature, to help rigidify the die plate assembly and to better seal the air chamber (26).



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