

other implements. Such processes would become thereby automatic and independent of the skill of the workman.

For chemical laboratories the new material has already been adopted by the University of Berlin, the Technical College at Aix la Chapelle, the Imperial health office at Berlin, and other State institutions. When used in ovens and heating devices of various patterns it enables the chemist to heat substances to any desired temperature and to maintain an unvarying degree of heat for an indefinite period. In elementary organic analysis it is frequently necessary to heat parts of the substance under examination to different temperatures and to leave another portion not heated at all. For this purpose a simple but effective apparatus has been devised. It consists of an iron frame on which is laid a fire brick trough or gutter, glazed inside and filled with kryptol. In this is laid the combustion pipe, which may be a glass tube, containing the material to be treated. The current being sent through the whole, even mass of kryptol, heats the tube uniformly throughout its length; but when it is desired to heat one portion to a high temperature, it is only necessary to scrape the kryptol aside and reduce the thickness of the layer under that part of the tube, when it at once begins to glow with accelerated heat, while the temperature of the other parts remains unchanged. If it is desired to withdraw or exclude the heat entirely from the central part of the tube, two copper forks, which slide along a brass conductor, are introduced into the kryptol, which take up the current and pass it by the conductor over the intervening space,

leaving the kryptol and that section of the tube cold and excluded from the heating operation.

As the ingredients of kryptol will withstand any temperature up to 3,000° Cel., its use for heating up to that limit is restricted only by the nature of the material of which the furnace and crucible are composed. Being itself a poor conductor of heat, it retains its warmth for a long time, and on account of its cleanliness and absolute tractability offers a key to a new and convenient system of cooking and of warming dwellings and other buildings wherever electric currents can be cheaply generated and supplied.

The new Association of Window Glass Manufacturers and Jobbers, of Pittsburgh, are reported to have begun the fight against the American Window Glass Company by cutting the lowest prices offered by that company 2½ per cent.

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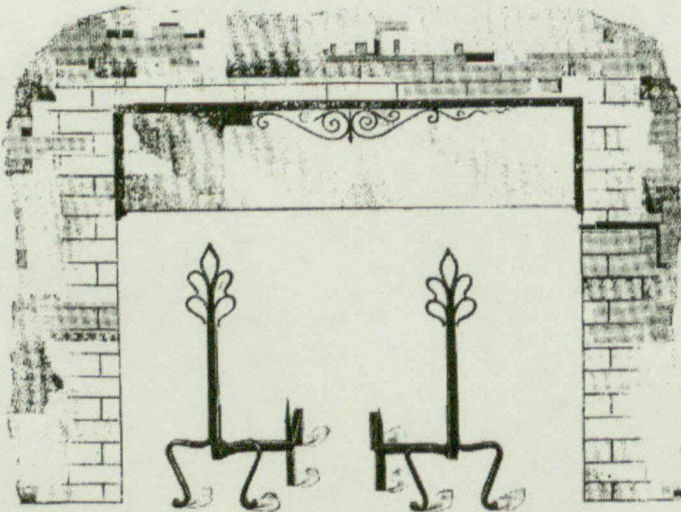
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