BUILDER'S DAY

The tenth of August is to be celebrated by the whole of the Soviet people as Builder's Day. Many millions of our principal builders will greet this day with new production accomplishments.

In the past year Soviet builders have, to their credit, fulfilled the building-construction plan and have carried out many tasks appertaining to the utilization of living accomodation. Considerable successes have been achieved in the past year. The building plan for the first quarter was fulfilled by 101% while the National Economy Council builders completed their plan by 103%.

In buildings throughout the country, socialist competition is expanding and producing early utilization, increased efficiency, mobilization of internal resources and reduction in cost of building-construction jobs.

The whole of the country will help the builders in their valuable and arduous task. Particularly large problems face the workers in the building-materials industry. Their duty involves the adequate and timely supplying of good building materials.

The building-materials industry is the rear guard and base of our building industry. The results of its effort are directly related to the tempo, quality and cost of constructional work.

In the struggle for higher quality and lower costs, a most important problem for the workers of the building materials industry is the development and manufacture of new, highly efficient and cheap building materials. Glass workers and ceramists may do much in this direction.

Glass workers should, in the near future, develop the mass production of glass packets, the use of which considerably improves and cheapens the glazing of buildings. Glass packets which consist of two fused or glued plates of glass containing a hermetically sealed air pocket, possess a number of indisputable advantages over the usual double glazing. The cost of 1 m^2 of single-frame window made from glass packets is 50 roubles less than the cost of the same area of double-frame window casement. Glass packets do not frost over at a temperature of -25%. Large-scale introduction of glass packets into the building industry would yield the people's economy a saving of several hundred million roubles and several hundred thousand cubic meters of high-quality timber.

Hollow-glass blocks are the most effective building materials. Walls made from glass blocks possess high mechanical strength, long life, translucency, low thermal conductivity and high fire resistance.

Our glass-block production is developing too slowly. The Skopinsk Glass Factory, connected with the Ryazansk National Economic Council,is the only producer. The glass industry in the near future should greatly increase production and widen the range of glass blocks.

Corrugated, reinforced glass is finding increasing use in a number of foreign countries. Possessing adequate mechanical strength and satisfactory translucency, it has been successfully used as a roofing material, for closing up illuminated openings, in the construction of translucent internal walls and continuous, overlapping glazed areas.

Experience indicates that the use of corrugated, reinforced glass is almost three times cheaper for making lighting equipment. The manufacture of corrugated glass involving small capital outlay may be organized in several existing glass factories.

Another useful building material is figured glass. It has been used successfully for glazing window spaces, doors and screens, transmitting light but excluding continuous visibility.

The USSR at the present time produces 1.25 million m^2 of figured glass per annum, which is less than 1% of the window-glass output. Because of its favorable properties, figured glass should be produced in larger quantities and used widely in public buildings.

Glass tubes are of great interest to the building industry. Their use in recent years for covering electric conductors in civil and domestic buildings has been completely justified. It is no longer a matter of opinion that all coverings for electric conductors should be made from glass tubes; this will lower the price of buildings and save thousands of tons of scarce steel tubing.

Of still greater importance is the possibility of using glass tubes for making concealed panel heaters in dwelling houses. Satisfactory results were obtained with glass-concrete panels in one of the new Moscow homes. Such a panel consists of a concrete plate 6 cm thick, in which is embedded a coil made from thermal-shock resistant glass tubing.

The development and utilization of glass-concrete building panels is of great economic importance: along with the sharp reduction in cost of heating systems, there will be a saving of hundreds of thousands of tons of metal which is at present being used to make iron radiators.

Among the new building materials obtainable from glass, the production of which should be investigated and widely developed in the near future, special mention should be made of heat-absorbent glass, profiled glass shapes (girders, window sills, troughs, angle shapes, etc.), hardened-glass runners for doors and glass wall tiles covered with enamel.

Heat-absorbent glass, which transmits 75% light, intensely absorbs hot solar radiation (three times greater than ordinary window glass). Owing to this, the temperature in spaces glazed with this glass, is always on sunny hot days about 10° lower than the temperature of the air outside. It has been noted that in southern regions, efficiency of the workers in rooms fitted with heat-absorbent glass is 20-30% higher.

An excellent building material is enameled glass tile, the manufacture of which is being investigated in two of our glass plants. Distinguished by its fine external form and high quality, glass tile is 20-25% cheaper than ceramic tile.

Ceramists should, in their turn, extend the output and variety of building ceramics. The output of fine, colored wall tile, floor tile and sanitary ware should be increased; the new and remarkable building material foamkeralite should be fully investigated and its manufacture developed.

Observing, together with all the Soviet people, Builder's Day, workers in the glass and ceramic industries are demonstrating their readiness to give abundantly to the buildings of our great country, cheap, strong and beautiful building materials.

RATIONALIZING THE FUEL ECONOMY OF THE GOR'KOVSK GLASS PLANT

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To obtain high outputs and efficiency in glass furnaces and to make it practicable to automate them, it is necessary to use a fuel whose properties may be kept constant or varied at will.

When peat gas is used, the variation in calorific value and composition have a deleterious effect on the performance of the furnace, mainly because of the variation in and the poor quality of the peat. Measures should therefore be taken to improve the working of the peatworks, and the possibility considered of improving peat quality and obtaining a gas suitable for use in glass factories.

Measures are herein considered to rationalizd the fuel economy over a period of 2-3 years in the Gor'kovsk Glass Plant. The first results of these measures will be to increase the calorific value of the gas and to discontinue the practice of throwing phenolic liquors from the gas plant into the Volga.