

# Making Roads from Refuse



THE ARRIVAL OF HOUSE REFUSE



EMPTYING A DESTROYER FURNACE CELL

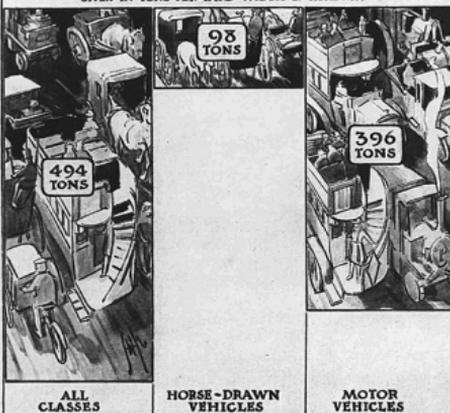


THE CLINKER, OR BUNKT HOUSE REFUSE

"WASTE not, want not." is the motto of the moment, and in the expensive school of experience we are all learning the value of thrift. The most urgent need of the hour is the conservation of our diminishing food supplies; but even when that problem is solved, and the war is won, there will remain the necessity for retrenchment and reform in every department of life. In the new era which is to follow the war good husbandry will assume national importance, and then to paraphrase Swift's famous remark on the man who could make two ears of corn grow where one grew before—the man who can save a half-penny in the rates "will do more essential service to his country than the whole race of politicians put together."

In the matter of waste prevention the Borough of Horney has an honourable record. We have already drawn attention—in *The Graphic* of February 17—to its ingenious treatment of the empty tins brought to the dust destructor. Mr. E. J. Lovegrove, the enterprising Borough Engineer, was responsible for this device, and he has also invented a highly successful method of using house refuse for making roads capable of withstanding the heaviest traffic and yet costing less than when constructed of any other material of equal wearing quality.

## NATURE OF ONE DAY'S TRAFFIC ON A TYPICAL ROADWAY GIVEN IN TONS PER YARD WIDTH OF ROADWAY



## COST OF MAINTAINING OLD AND NEW STYLE ROADS COMPARED GIVEN PER SQUARE YARD PER ANNUM



DIAGRAMS DEMONSTRATING THE ADVANTAGES OF THE NEW ROAD  
 It will be seen from these diagrams that the cost of making and maintaining the old style broken stone macadam road under the new traffic conditions would be about three times as much as in the pre-war days, but by the use of clinker-asphalt (Mephthal) a smooth, wear-resisting surface has been obtained at practically the same cost as the old-style road under past traffic conditions, when the roads were used almost exclusively by horse-drawn vehicles as against the heavy motor-buses and motor-torries of to-day.

Town refuse which has been burned in a destructor produces about one-third of its weight in "clinker." In some districts it is carted away as waste at considerable expense. About five years ago the Horney Town Council found it necessary, owing to the increase of heavy motor traffic, to replace certain macadam roads with an improved wear-resisting surface, using for the purpose, in the first instance, such materials as granite, sand and cement, mixed with bitumen. After a series of laboratory and practical experiments an artificial asphalt, capable of carrying heavy traffic, including motor rubber-tired vehicles and motor-torries, was produced by substituting for the granite, sand, etc., refuse-destructor clinker only, specially prepared and mixed with a bitumen known as "Mephthal."

During the past three years considerable areas have been surfaced with clinker-asphalt in place of the old macadam, and successful sections have been laid on gradients and on tramway tracks, and roads carrying traffic of about 1000 tons per yard width per day. While the work is in progress the whole of the house refuse of the district which is in the refuse bins on one day is, about three days later, under traffic, which can be turned on to the new material within five hours of its being laid.



IN THE PREPARING MACHINERY ROOM



LAYING AN ASPHALT FOOTPATH



IN THE TESTING LABORATORY



MAKING THE KING'S HIGHWAY