

labour is not the best guide in this matter, as labour only sees what to it appears to be the brutal curtailing of manual work by mechanical means in special cases that come under its observation. Take the gas industry, there has been displacement of labour by machinery in the retort house operations; but, given in the entirety of their operations, more direct employment as well as more employment to the allied industries than ever before. That very machinery in the retort house has had to be produced and installed, all giving fresh employment to labour. After installation the machinery has to be kept in repair. The machine shops on gas works are now much more elaborate, and necessarily so than they were formerly, and give much more employment. The machine tools with which they are, but were not previously, largely equipped, have to be made, delivered, installed and then maintained in repair. In other words the retort house machinery, while it has displaced labour in the retort house, has called into existence and distributed employment that did not previously exist. Men are indeed looking at the question from a broader standpoint, classes of machinery that have an absolute advantage, by the creation of entirely new fields of labour, and have opened up channels not hitherto exploited. Retort house machinery (which in one quarter has displaced and simultaneously in others, has produced labour) has assisted in economical working, and in cheapening the product. With the cheapening of the product the demand has increased, and provision giving employment has had to be made for this. Take any progressive gas undertaking in the country, and obtain the figures as to the total number of employees, and the wages paid now and a few years ago, and it will be found that though the number of hands directly employed say under the roof of the retort house may have diminished, in the total number of hands engaged by the undertaking, and in the total of the wages paid over the whole service, there has been an increase and not a decrease. This too does not include the work that the growth of one industry has made for others. Having prefaced this paper with these few words as to labour, I will now give you some idea as to the extent and the uses of the various machines, although at the same time this subject is far too large to be exhausted within the limited compass of a paper.

The first machine of importance is the coal breaker, the capacity running anything from 25 to 75 tons per hour, and may be of the double or the single roll variety. The duty of this machine is to break the large lumps of coal to the required size before storing and its later use in the charging machines. The size of the lumps in run of mine to be broken are sometimes very large, 24 inches, 30 inches, 36 inches long by about 12 inches by 9 inches. These sizes appear rather formidable