

$C_2H_6 + 4Br_2 \rightarrow$ Land Values

If we have a mixture of sawdust and buckshot, we can separate them by picking the buckshot out with the fingers; but a simpler and more rapid method is to throw the mixture into a tub of water; the shot will sink, and the sawdust will float. This idea has engaged the attention of metallurgists for many years, and much capital and labor have been expended in the effort to find a liquid heavy enough so that rock would float in it, but in which minerals would sink.

The matter is of immense practical significance. The United States, for example, is largely dependent upon foreign sources of manganese, an important ingredient of many special alloys. America has vast deposits of manganese ore, but of such a low grade, and mixed with so much rock and dirt, that refining it is almost prohibitively expensive. Immense resources of iron, gold, and other metals have been left idle simply because there was no convenient and cheap way of separating the mineral portions from the rock with which they were mixed.

Now at last several liquids have been discovered which are heavy and cheaply made, and by mixing them in suitable proportions it will be pos-

sible to carry out any separation of rock and mineral at very trifling cost. The liquids (which are chemically similar to chloroform and carbon tetrachloride) can be used over and over again with little loss. It is estimated that the new metallurgical technic will more than double our gold production, and when we consider the stress which nations lay on access to raw materials, the political consequences may be far-reaching.

If, as is contemplated, new mineral deposits are brought into production by this method, we need not look far to find the ultimate beneficiary. Labor employed in the new mines will not command higher wages than similar labor in other mines, and capital invested in extracting and refining the ore will command no larger return than is earned, on the average, by other capital. All the gain attaches to the land; most of it to the particular land in which these low grade ore deposits are found. The owner of the mine will be under no compulsion to share his good fortune; he will keep all the increase. So the chemist and metallurgist, like the pick-and-shovel man and the President, work and study and ultimately enrich the landowner.

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