H.—18. xlii

causes; but if there happens to be a special increase in demand for a commodity whose price is usually flexible, its price will be more than doubled, whilst other prices will change by less than doubling. But still the average of all prices—that is, the general level of prices—will have doubled. It is important to remember this in considering the actual influence of the gold-supply on the prices of particular commodities and services, such as those in the schedule of living. Moreover, the volume of trade does not remain constant, and the quantities of different goods change in different degrees, thus introducing another cause tending to the "dispersion of prices" from the average fixed by the ratio of the money-supply and velocity to the amount of trade.

What is important to grasp in examining the relation of gold to prices is that "every price of an individual article presupposes a price-level," and that the demand for and supply of each article cannot of itself explain the amount of that price, but only its amount in relation to the prices of other things. "It is amazing how tenaciously many people cling to the mistaken idea that an individual price, though expressed in money, may be determined wholly without reference to money. . . . We have more need to study the price-level preparatory to a study of the price of sugar than to study the price of sugar preparatory to a study of the price-level. We cannot explain the level of the sea by the height of its individual waves; rather must we explain in part the position of those waves by the general level of the sea. . . . If one commodity rises in price (without any change in the quantity of it or of other things bought and sold, and without any change in the volume of circulating medium or in the velocity of circulation), then other commodities must fall in price. The increased money expended for this commodity will be taken from other purchases. In other words, the waves in the sea of prices have troughs."\*

"We cannot, therefore, reason directly from particular to general prices; we can reason only indirectly by reference to the effects on quantities. Sometimes the rise in an individual price raises and at other times lowers the general price-level. To draw a physical parallel, let us suppose that a thousand piles have been driven in a quicksand, and that the owner wishes to raise their level a foot. He gets hoisting-apparatus and planting it on the piles pulls one of them up a foot. He then pulls up another, and continues until he has pulled up each of the thousand. But, if every time he has pulled one up a foot, he has pushed down 999 over  $\frac{1}{999}$  of a foot, when he has finished he will find his thousand piles lower than when he began.

Each time a pile has risen the average level of all has fallen."†

A practical application of the theoretical connection between the price-level determined by gold and the prices of particular commodities may be quoted from Mr. Layton's "History of Prices.": Food-prices increased markedly in 1911; the drought in Europe had reduced the yield of agricultural products below the normal level, and thus shrunk the volume of trade. This shrinkage alone would have accounted for the rise in the price-level, there being a smaller number of exchanges to be made by the same amount of money. "With the same amount of money in the hands of consumers, and with fewer goods to go round, prices may rise without any currency change; and this consideration is at the bottom of the rise in prices of sugar and of dairy-produce. The increase of gold, however, underlies even this movement, for the level from which this special rise started is higher than the level from which a similar rise in 1895 would have started. crop, for example, in 1911 is abnormally low, but it is bigger than in 1895. are more people with money in their pockets anxious to buy sugar, both in the Continent of Europe and in England, and therefore a crop that would have met the whole demand of consumers with money to spend in 1895 is insufficient for the number of consumers with money in their pockets in 1911. The difference in the basis level is thus dependent on the fact that there is more money in Europe than was the case fifteen years ago, though the particular rise on the top of the boom is to be attributed directly to drought."

11. We venture to quote a table drawn up by Mr. Layton, analysing the price-changes in the United Kingdom of the articles comprised in Sauerbeck's index number between the periods 1894-98 and 1906-10, and comparing these changes with the change in the general level of prices; and to extend it by a similar table for New Zealand based on Dr. McIlraith's index number.

Change in relative prices in N.Z.