

7-102 NORMAN'S  
SINGLE GRAIN SYSTEM

FOR

DETERMINING THE PAR VALUE OF ALL MONEYS OF  
ACCOUNT AND GOLD AND SILVER COINS  
BETWEEN ALL COUNTRIES.

ALSO FOR

ASCERTAINING THE COMPARATIVE WEIGHTS OF FINE  
GOLD OR SILVER INDICATED BY RELATIVE  
PRICES THROUGHOUT THE WORLD.

BY JOHN HENRY NORMAN.

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By JOHN HENRY NORMAN.

MANY of my friends, among whom are a good number who have to do with foreign moneys of account and coins, are surprised when I tell them that I have a table and rules whereby I profess that any boy or girl who can work decimal multiplication and division is enabled to ascertain the par of exchange between all the countries of the world, and the values of the coins of any country in all other countries, whatever may be the gold value of silver or the silver value of gold.

Fourteen years' working of the exchanges in Calcutta made me thoroughly familiar with the subject, and before I left that city, in 1875, I had formed a table of the gross and fine weights of the standard and chief subsidiary coins of the world, with the value of one grain of fine metal attached to each in the currency of the country where the coin circulates. I pointed out that fine metal alone was that to be taken account of in the exchanges. This table fell perfectly flat in Calcutta, where the whole banking and mercantile community possessed it, and I am not aware that the issuers of credits in London, to whom copies were sent, ever saw anything in it worthy of their attention. I received a recognition of the merit of the compilation from the then Mint Master of the United States of America, Dr. Linderman, in 1875, but no practical use (so far as I have been able to ascertain) has been made of my method in the United States. Observing, in 1882, that the late Professor Stanley Jevons was studying the subject of legal weights of English coins, I sent him a copy, which led to my making the acquaintance of this eminent authority upon certain branches of currency. Since then I have fairly completed my system in tables, with directions in my pamphlet on *Local Dual Standards*\*, and my paper "An Elucidation of the metallic bases of the Colonial and Foreign Exchanges and the simplification of exchange," read before the Bankers' Institute on the 16th February, 1887.

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\* *Local Dual Standards*, published by Cassells.

Whether a person favours a "Local single standard" or "Local dual standards," this simplification of values and the exchanges is equally valuable to him, and it is not in my opinion necessary to wait until truth silences all dissentients on this disputed question before the adoption of my system. There is one statement which, however, I would advance here, which is—that a metal to become a monetary standard must be received in unlimited quantities by the Mint or other institution of a country, be fitted for currency, and be appointed unlimited legal tender. I believe that both schools of thought on currency now admit this, and consequently that where the receptive side of local dual standards is not practised, though the distributive side is, there no such thing as local dual standards exists, and that the real standard in those countries, so long as their international trade is conducted on the dearer metal, is the dearer metal.

The foundation of my system rests upon the value of one grain of fine metal in the standard money of account or coin of each country. I present in two tables, one of fine gold and the other of fine silver, twenty-five different gold weights of moneys of account, and twenty-five different silver weights of moneys of account. Of these fifty different weights I think that there are not more than twelve gold weights, and not more than thirteen silver weights that are not tokens. It would be with these therefore that calculations would have to be made in determining the par values of the moneys of account and the gold and silver coins of the world.

Having the value of one grain of fine gold in the currency of a gold standard country, the weight of fine gold in any gold coin being multiplied by this value the result will be the value of the coin in the currency of that country. The same with regard to silver. To find the gold value of silver coins in a gold standard country, the gold price of silver may be divided by the value of one grain, which will give the number of grains of gold indicated by the price, and this compared with the number of fine grains of silver procurable for the price, will show the proportion established between gold and silver; the fixed gold value of one grain of gold being divided by this gives the gold value of one grain of silver. The same process with regard to finding the silver value of gold coins in silver standard countries, but the proportion established between gold and silver must be multiplied by the fixed value of one grain of silver, and the result will be the silver value of one grain of gold.

The exchanges are always based upon Mint issue weights between countries possessing convertible paper currency. For actual weights scales are needed, and then resort should be made to my large tables in *Local Dual Standards*, wherein the gross weights, the alloy and the fine weights are given with the values of one gramme and one grain in each of fifty-four countries of the world of the 103 countries, the internal and international prices in which are based upon gold and silver.

The following are the tables, and the rules are appended. I recommend anyone who desires to master the system to work out the examples.