(editor's note: This paper was transcribed from a handwritten cursive copy with various difficulties. For a perfect rendition, the reader might wish to consult the original, itself a copy, in the volume entitled *Literary Club Papers*, May 30, 1891 to February 6, 1892)

A Historical View of Silver Coinage In the U S.

In 1795 the French convention in Paris adopted the metric system of weights and measures. One ten millionth part of the quadrant of the median, measured between the North Pole and the Equator, was adopted as the unit of lineal measure and was called a meter; Three years before, Congress had declared the ratio of value between gold and silver to be fifteen to one. Two prominent functions of all governments, equally recognized at that time, were the arbitrary establishment of weights and measures and the arbitrary evaluation of coin.

Today the meter is exactly the same while gold is worth about twenty three times as much as silver. The meter depends upon a fixed and unvariable line or imaginary line and therefore never changes but the value of gold and silver are influenced by so many and varied causes that not even an act of Congress can regulate their value.

These great fluctuations in the value of gold and silver are the cause of most of the problems relating to money. Passing over the time when the early Dutch settlers used bread as money even among themselves, having first used it in trading with the Indians, when tobacco was legal tender in Virginia, we come to the first law of the U.S. establishing a money of its own. The Spanish milled dollar having been for some years previous the standard coin. In 1792 the first coinage law of the U.S. was passed. It established a mint, declared the dollar to be the unit and provided that the relative value of pure gold to pure silver should be as fifteen to one, that is an ounce of gold should be worth fifteen ounces of silver. This silver dollar contained 371 ¼ grains of pure silver and the gold dollar 24 ¾ grains of pure gold which was exactly 15 to one. It also provided for the free and unlimited coinage of gold and silver and made both legal tender for any amount. Hamilton the first Secretary of the Treasury recommended the use of both metals as the unit and Jefferson endorsed his views on the subject.

The next act of importance was in 1834 when about 6 per cent of pure gold was taken from the Eagle and the lighter coin made legal tender for ten dollars while the old coin was raised by the act to ten dollars and 66 cents. This made the ratio between gold and silver almost exactly 16 to 1. From this time till the demonetization of silver in 1873 there were no important changes, excepting a change in the proportion of amyloid to pure metal and in and inappreciable reduction of gold from the Eagle. One of the most remarkable pieces of legislation of the age was this act of 1873. Although the bill originated in the Senate in 1870, it went continually between the two houses receiving amendments and changes and was frequently debated upon, nobody but the promoters seems to have known what was going on, but when the operation of the law began to be felt, it was discovered that we had a single standard of gold. It seems almost impossible to believe that a bill of such vast importance could be under consideration for such a length of time and be completely misunderstood. Most of the members thought it was simply a law regulating minor details in the working of the mint.

We next come to the Bland Allison act of 1878. This act reinstated the old silver dollar is a legal tender, but instead of free coinage directed that the Secretary of the Treasury should purchase from two to four million dollars worth of bullion per month at its market value and coin it as rapidly as possible. It also provided for an international conference to consider the adoption of a common ratio between gold and silver for all commercial nations. The subject was again taken up in the next Congress and various bills were introduced one of which, restoring free coinage, passed the Senate but was ignored in the house. The next act the one in force today, was passed in July 1890. It directed the Secretary of the Treasury to purchase from time to time silver bullion to the aggregate amount of four million five hundred thousand ounces a month not exceeding one dollar for 371 ¼ grains, and to issue silver certificates for it. The certificates have full legal tender capacity and are redeemable in either gold or silver at the option of the government. We then see from the foundation of the first mint till 1873 we had free coinage of gold and silver with a ratio varying from 15 to 16 to 1.

From 1873 to 1878 gold was the standard and since then there has been a double standard without free coinage of silver which in reality amounts to a single standard of gold. Turning now to England which is the financial center of the world we find an entirely different system prevailing. Up to the early part of the present century England was in the same state of vacillation and perplexity that now characterizes our own country. Silver upheld by Locke and most of the economists of his time seemed to be in the ascendancy till Lord Liverpool definitely settled the policy which is today undisputed. In fact England has even refused delegates to the various monetary conventions that have been held in recent years. The English system is the composite legal tender with the gold sovereign as the standard of value. The only other coin is the half sovereign and the smaller subdivision of the sovereign is effected by means of token coins of silver and copper. These coins are made legal tender for a small limited amount and as metal are so far below their value as coin that there is no danger of their being exported or melted down. Any owner of gold bullion may take it to the mint and have it coined free of charge but as there is always a loss of time and hence interest in the delay, as a matter of practice the gold is always sold to the Bank of England which is required to purchase it at a fixed price which is slightly below the mint price.

During a parliamentary inquiry it appeared that a certain firm had sent ten thousand pounds to the mint to be coined and it was said that it was the first time it had ever been done.

Since the Franco-Prussian war Germany and most of the leading European states with the exception of France, have adopted the composite system with gold as the standard. In France the bimetallic system at the ratio of 15 ½ to 1 has been in use for almost a century, but while free coinage still exists, the amount that may be coined has been limited and the indications are that a single standard will soon be adopted. Theoretically there is no gain to the government from coinage but as a matter of fact it is very large. As before stated under the present law 4 ½ million ounces are coined monthly. The market price of silver bullion is about eighty cents so that there is a net profit to the government of about twenty per cent of the amount bought less the slight cost of coinage. This amounts in round numbers to nine hundred thousand dollars per month. In addition to this there is a still larger per centage of gain on the nickel and copper coin but the total gain is less because there are fewer of these coins in respect of value than of silver so that the mint is an exceedingly profitable establishment and I am rather surprised that the Farmers Alliance has not demanded that it be lighted by electricity and running day and night with an extra fence of men, but an act of Congress cannot make England or any other foreign country accept silver at anything but its real value.

The value of the difference between the claimed value of silver and its bullion value is really made up by the guarantee of the government but like inconvertible paper money it retains its place only so long as the government credit is perfect. Two or three years ago a National Silver convention was held in St. Louis and committees and officers chosen. Sen. A.J. Warner became Chairman, Francis G. Newlands Vice Chairman and other prominent names are on the executive committee. The object of the meeting was to discuss silver and to take measures to bring it back to its old time position alongside of gold. A few weeks ago I enclosed a couple of five cent stamps to the Secretary with a request for any literature published by the Association. The return mail brought a huge package which the two stamps did not begin to pay for and pamphlets and circulars have continued to arrive ever since, which certainly speaks well for the activity of the committee if nothing else can be said of the credit of the cause they represent.

The Silver men ask and demand that the free and unlimited coinage of silver at its present rates to gold. In support of their claim they say that the greatly increased and constantly increasing population make a large augmentation of the currency inparative and that this can not alone be done by gold; that the minute free coinage is adopted silver will have no market value, and will freely circulate without displacing gold. They also claim that gold is not only becoming scarcer every year but that its use in the arts and manufactures has so increased that there is little or no residue left for money and lastly that the great variation in the values of gold and silver has been due to an increase in the value of the former.

The circulation per capita in in the U.S. and is estimated at about 23 dollars, in Great Britain at 21 while France has nearly 60 dollars. David Hume, in his essay on money, says we find that in every kingdom into which money begins to flow in greater abundance than formerly, everything takes a new pace, labor and industry gain life, the merchant becomes more enterprising, the manufacturer more skillful and diligent and even the farmer follows his plow with more alacrity.

There can be no doubt that a shrinkage in the volume of money, the same as any other commodity, enhances its value and thereby decreases prices and causes general business depression and stagnation. At the Christian era the metallic money of the Roman Empire amounted to one billion 800 million dollars and by the end of the 15th century had shrunk to about two hundred million or one ninth of its original volume. During this period the crumbling of institutions kept even pace with the shrinkage in the stock of money and a consequent falling off of price. Population dwindled, there was a constant falling off in commerce, trade, and the arts and poverty became general. Of course this cannot all be attributed to the decrease in the money supply but the two were certainly coincident. The same result was again observed in the beginning of this century. Various wars caused a diminution in the supply of the precious metals and consequently in money. It is estimated that between 1809 and 1848, a period of 39 years, the purchasing power of the precious metals increased fully 145 per cent. During this time there were no important fluctuations in the relative value of the metals and there was sufficient to keep up the then present supply from losses by accident and wear, but there was not enough to keep increasing the stock in proportion to the increase of population.

Shortly after when the mines of California, Russia and Australia began to furnish enormous supplies, doubling the money supply of the world in 25 years, prices began to rise again. Since 1865 the supply has again begun to diminish and the phenomenon which may now be termed a Law, of decrease in prices has again begun. While it is thus true that more money is needed as the population increases still there are many ways of doing this without the free coinage of silver, but as a matter of fact the money supply is constantly increasing and more rapidly than the relative increase of population as will be hereafter shown. One very plausible plan for an indefinite increase of currency has lately been proposed by Hon. M. D. Harten. The wealth of a nation consists largely in its railroads, buildings, shipping etc. Mr. Harter proposes that instead of banks issuing their notes on the security of government bonds, that they be allowed to hold certain first-class bonds in the well-known large corporations which have not sold below par for many years and issue their notes on the security of these all to be under the strict control of the government.

The plan is a very ingenious one and when by the retirement of the present outstanding government bonds it shall become necessary to reverse the banking system, it will probably receive considerable attention. As to the proposition that gold and silver will circulate side-by-side in an arbitrary ratio fixed by law without either being displaced is difficult to understand in the light of experience. As early as the time of Elizabeth a London merchant named Sir Thomas Gresham explained the law, which ever after has borne his name that when two medals are put on the same footing the cheaper metal will drive out the costlier. In other words, if gold and silver, coined free and without limit at the fixed ratio of 16 to 1, if this were the true ratio, the moment the ratio changes to 17 to 1 gold will be driven out or rise to a premium, or if the ratio falls to 15 to 1 silver will be displaced and gold will become the standard. The workings of the law are as certain and inevitable as the law of gravitation and the reason is very clear. If A owes to B, ten dollars he will certainly pay him in those dollars which are the easiest for him to acquire. If silver is overvalued he will buy silver bullion having it coined for nothing and pay his debts with it, and the contrary if gold is overvalued.

The most striking example of the operation of Gresham’s law occurred in Japan some years ago the principal Japanese gold coin was the kohang which was passing current for silver [litzebus]. The kohang was worth in bullion about 18 English shillings while for silver [litzebus] a were worth only about five shillings. The earliest European traders soon discovered this, they rapidly bought all the kohangs they could get hold of at the native rating and were reaping a golden harvest until the government discovered what was going on and put a stop to it but not before most of the gold had left the country. Of course this law would have no effect if the ratio of value fixed by law were correct in the first place and there would be no fluctuations in value thereafter but, while silver and gold have been found to vary less in value than any other important commodities, there has nevertheless always been some variation in the course every few years. In the year 1500 the ratio was 1 to 10. In the year 1600 about one to twelve , in 1700 1 to 15. In the beginning of this century it was about one to 15 6/10. From that time to this silver has constantly been decreasing in value or as the silver men claim gold has been increasing in value.

With this historical view of the changes in the relative value of gold and silver it is interesting to note the operation of Gresham's law in this country during the present century where there was free coinage of both metals. From the foundation of the mint in 1834, while the ratio was 15 to 1 and the marker ratio was 15 and a fraction to 1 there were only about 11 million gold dollars coined while three times as many silver dollars were issued and the gold that was put in circulation soon disappeared or was exported. As before stated in 1834 the ratio was slightly changed by reducing the weight of the gold coins. This slightly overvalued silver and from this time until 1853 more than 200 millions of gold was coined and only about 40 million of silver. The next period, from 1853 to 1873 is the most striking. At the first named date gold was practically the standard and silver had become so scarce that it was difficult to make change. Congress now recognized the fact that it was impossible to establish a ratio which would keep the two metals together without changing the silver dollar. The fractional silver prices were reduced to token coins and were thus kept from being melted down or exported from the country. During this period over 500 million dollars in gold were coined and only the comparatively trifling sum of five million and an half in silver.

Thus silver had practically been demonetized for more than 20 years, when the much complained of demonetization act was passed in 1873. The country is today flooded with pamphlets and fiery speeches are being made declaring that this act has reduced the price of products of the farmer thirty per cent. One writer says that since then the silver mine owners have lost 100 million dollars and the wheat growers over 1900 million dollars and the cotton planters nearly three billion. It is certainly very difficult to comprehend how this act which merely declared to be laws that which had been the same as law so many years could have worked all this disaster. The next claim, that the gold supply is decreasing while it is constantly being put to more use in the arts and manufactures, if true, would be the most serious question with reference to our money system.

The evidence produced before a Royal commission appointed to inquire into the causes of this variation seemed to the silver advocates to establish conclusively that gold has constantly been increasing in value while silver has remained stationary. The most important item of evidence was that the East India Rupee, which is a silver coin, would purchase substantially the same amount of wheat, cotton and other staple commodities that it would in 1873, although measured in gold the Rupee had fallen in value. In other words, the rupee a silver coin would now purchase as much of everything except gold as in the former year.

Evidence of this same character was presented to a committee of our legislature and seemed to be indisputed but while this may be true, it will hereafter be attempted to show that this has been due to a decline in the price of all staple commodities independent of any money standard. It might here be remarked that India and most Eastern Countries have a single silver standard. India coins Gold but it is not a legal tender and therefore only a commodity. It is estimated that the population of the world is 1400 million and of these 90 million only are in countries where gold alone is legal tender while 900 million are in silver standard countries, the balance have a double standard.

Although this shows that silver largely predominates as money it at the same time proves a more important fact: that a single standard is almost universal. That the annual production of gold is diminishing is also evidenced by statistics. It is estimated by reliable authority that between 1851 and 1855, 135 million dollars were annually mined, and between 1881 and 1885, 101 millions. The estimate for 1888 was 92 million and one half showing a falling off of about 32 per cent in 33 years. What proportion of this annual output is coined and how much is used in the arts and manufactures it is impossible to estimate accurately as a large amount of gold is coined that has at some time before been money of some country but it is certain a large proportion is coined and the gold coin is constantly increasing. According to the investigations of Mr. Atkinson the population of the world has increased since 1849 about 40 per cent while the concurrent increase in the volume of the money metals has been fully 100 per cent and the value of the gold added during this period was more than double the value of the silver added. Although there has been a constant falling off in the gold production during the last 40 years, the present annual output is enormous in comparison with a time preceding this period.

Between 1820 and 1830 the annual average was only about ten million; between 1838 and 40 about 14 million so that although for a while the yield of the mines was enormous, in one year reaching nearly 180 million, it is not fair to take this abnormal period as the standard.

Again notwithstanding Germany and other countries adoption of the gold standard the supply has been sufficient to give these countries all the gold the required without apparently affecting the requirement of other countries. The production of silver on the other hand, has been gradually increasing from 40 million in 1860 to 135 million in 1887 while during the same time a large supply of coined silver has been thrown on the market as bullion, the result of demonetization of silver in Germany. The restriction of silver coinage in France and other states of the Latin Union, by decreasing the demand also tended to put down the prices. Thus from 1836 to 1888 silver fell from 59 ½ pence to about 43 pence per ounce. There’s also been a great decrease in the cost of mining silver. Another factor has been the sale in London of India Council drafts. India having a single silver standard and being obliged to pay to England a certain annual amount in gold about 45 million dollars worth of silver is annually sold in London, which is in the nature of a fenced sale and thus tends to depress the price. We have thus seen for years past the metallic money has been constantly increasing and more rapidly than the proportionate increase in population while on the other hand there has never been a time in the world’s history when such large and enormous business transactions have been carried on without the use of money at all or at least a trifling percentage as today.

In five days and a fraction the clearances at the banks of England amount of the value of the total gold coin but it is practically all done on paper, only a small percentage of coin being used to settle balances. The Comptroller of the currency estimated that of the total receipts at all the National Banks in New York for one day but one and three tenths percent was money. The rest being checks, drafts, etc. the economy resulting from the use of checks is shown in another manner by France. The check is not so extensively used there as here so that the per capita circulation is largely in excess of our own, nearly triple as before stated.

The next and last economical phenomenon bearing on money to which I will call your attention is the great fall in the prices of all staple commodities during recent years and it is so submitted that if it can be shown that this fall in value has been independent of any money standard but nevertheless measured in silver, prices have remained stationary, that there has also been a fall in the price of silver and a cry that debts are enhanced by the gold standard is false and the present agitation and excitement are without foundation.

In a memorial presented to the President of the U.S. in 1885 and signed by 95 members of the House of Representatives the following statements appear. “18 million bales of cotton were the equivalent in value in value of the entire interest bearing national debt in 1865 ($2,221,000,000) but it will take 85 million bales at the price of cotton now (1885) to pay the remainder of this debt ($1,196,000,000); 25 million tons of bar iron would have paid the whole debt in 1865; it will now take 35 million tons to pay what remains after all that has been paid.

The inference drawn from these facts assuming them to be true, was that notwithstanding the large payments that had already been made the national burden he had increased. The surprising part of this memorial is that the 95 statesmen did not conclude with a demand that cotton and bar iron should be made the money standard, because if their view is correct these commodities have remained at a standstill while the precious metals are climbing out of sight.

Of course cotton and iron certificates could be issued and the articles stored away. Thus avoiding a weighty and bulky money. The absurdity of this theory is plain to every one upon a little inquiry and it is very probable that the memorial was signed by many of the members merely for the novelty of signing a paper to which the contribution of some kind was not attached. The facts as stated are probably about correct but the causes are very different from those assigned. In the first place the price of cotton in 1865 was nearly 2 ½ times what it was five years before owing to the war its decreased production and consequent scarcity, and in the second place owing to improved methods in production the same amount of actual labor that would have produced three bales of cotton in 1860 would now produce five or more bales.

Within five years from 1880 to 1885 the price of American pig iron fell from $41 a ton to $18 a ton. The causes of this remarkable decline were to a slight extent owing to an overproduction but the main reasons for this and the fall in all the other staple commodities are the improved processes of mining and manufacture. A large part of David A. Wells late work on Recent Economic Changes is devoted to this subject and treated in a very interesting manner but only one or two examples can be given here.

The average production of the furnaces of Great Britain for the year 1870 was 173 tons for each man, but in 1884 the same labor would produce 261 tons. Thus not only the cost of labor is reduced but as the same furnace can now do nearly twice what it formerly did, much less capital is required. The history of petroleum since 1873 is probably the most interesting and instructing of any of the staple commodities. From this time until 1889 the annual product rose from 9 million barrels to 28 million and although its uses and the demand for it increased the price of crude oil rapidly fell from 9 ½ to 1 ½ cts per gallon, and refined oil from 23 cents to 6 cents and a fraction. Here again the same causes have been at work; pipelines and tank cars have reduced the cost of transportation by two thirds; scientists and mechanics have combined their knowledge and experience till the labor for one man will produce in one day as much as that of three a few years ago.

It is also frequently asserted that free coinage of both metals is a constitutional right but to disprove this is only necessary to quote the only provisions in the Constitution on the subject. 1st "the Congress shall have power to coin money, regulate the value thereof and of foreign coins" 2nd no state shall make anything but gold and silver coin a tender in payment of debts."

What now is the necessity for free coinage of silver and what would be the results? It has been shown that the volume of money has for years been increasing more rapidly in proportion than population; that while the gold production is not as large as 20 or 30 years ago it is still enormous compared to the time before this and it has been presumptively shown, at least, that gold has remained more stationary than silver, which has fallen in about the same proportion as the staple commodities so that the reason for the necessity for free coinage of silver remains to be seen. On the other hand, were such a law passed it would simply be impossible to calculate the results. In the first place our estimated 600 million of gold would immediately rise to a premium, for the people are today too well informed to exchange it at its nominal value for silver, and its nominal value, as the Japanese did the kahango for the spelling mountain tzebus. They would then gradually disappear and finally leave the country as in the beginning of this century when silver was overvalued; but the most disastrous results would be to private contracts and investments of which no accurate idea can be given.

Every man who owned a $1000 bond or a $1000 note would get about $800 dollars for it; or in other words, every debtor would be allowed by sanction of law to settle with his creditors at 80 cts on the dollar.

WW Ramsey, Jr

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