ing the position of public services in respect of management and routine." A summary of his positive views is given: "If then the state cannot without danger either forbid or circumscribe, or by special inquisitional registration sanction the combination movement, there is left for it only the duty of ensuring that the movement will owe its success or failure to the action of the openest competition with other methods."

HENRY L. MOORE.

*Staatliche Theorie des Geldes.* By GEORG FRIEDRICH KNAPP. Leipzig, Duncker and Humblot, 1905.—viii, 396 pp.

This book by Professor Knapp of Strassburg, a scholar noted not for work in the field of monetary theory, but as an eminent authority on agrarian conditions, has aroused great interest in Germany. One of the author's principal tenets is that money is a creature of positive law, that is, of the state, and hence he calls his theory "staatlich"; but his meaning is best expressed in English by saying that his is a "legal" theory of money. He maintains that the theory of money must be based directly upon the facts in its legal history, and warns us that received explanations are not so founded. His argument is elaborated with the utmost care, as many as a hundred new technical terms having been fabricated in order to obtain the sharply outlined concepts which he deems necessary.

According to Knapp, the theorist must not define the monetary unit of value as such and such a weight of metal. Those who nevertheless insist upon so defining it he calls "metallists." The typical contemporary theorist is a metallist, and his doctrine in essence runs as follows: The ultimate definition of the German monetary unit, the mark, is the 1395th part of a pound of gold, for gold may be converted freely into marks at this rate by any owner of bullion. A price expressed in marks, or an obligation to pay marks, is thus really a call for such and such an amount of gold. In earlier times, indeed, the metal passed by weight, but for the sake of convenience and economy the state has stepped in and has provided official coins of which the weight is known. The value of the coined money unit is therefore to be defined as its metal content. To this point, says our author, the explanation is based on metal. The metallist solves all he can by his first catch-word "metal." Whatever remains he endeavors to solve by his second catch-word "credit." For, says he, the various supplemental forms of money are redeemable, by the state or by some allied institution, in the standard metal money. These, therefore, are credit representatives of metal.

But the legal history of money is full of cases which this theory cannot account for, the most important being cases of the use of inconvertible paper as standard legal-tender money. Knapp regards as nonsensical, in the light of history, the occasional metallist attempt to explain these cases by the second catch-word. In history this form of money has certainly had a value which did not flow to it as a credit, or potential credit, representative of metal. Most metallists, however, explain—or rather fail to explain—these cases by characterizing them as anomalous, and by calling the paper money hard names. Paper may indeed be bad money; but even to be bad money, a thing must be money and deserves explanation by a theory of money. Explanation must not be confounded with commendation. By designating an important historical case as an anomaly, the metallist confesses that his theory is merely a partial one, a half-truth at best. No other science would tolerate such a dualistic theory.

Knapp's book is an attempt to give a correct and therefore above all a single or unified theory, which shall account for all monetary systems in the same way. His contentions may be outlined as follows: The value-of-the-money-unit-is-in-all-cases-whatsoever purely "nominal." Money, in order to circulate in exchange, must consist of concrete movable things, but the state may choose one material or another material to make its money. This choice is a secondary and non-essential matter, in the sense that the value of the unit is still nominal whatever material be chosen. The nominal character (*Nominalität*) of the unit of value is quite as demonstrable in the case of the gold standard with free coinage as in the case of the most veritable "fiat" paper money. Knapp says:

> My error was [at first] the same as that of almost everyone. I believed that value judgments could be made only when goods are compared with goods. How simple and clear this seemed! Now, however, [I see that] it can be maintained only that the first value judgments are formed in this way. Once this sort of judgment becomes common, it ceases to be necessary to compare goods with goods, and a value judgment can be reached by the use of a merely nominal unit. . . . Genuine paper money has been a real historical fact, but it is possible only with the acceptance of nominal units of value. Thus the nominal character of the monetary unit of value is as truly a matter of experience as the facts of history [pages 13, 14].

In order to show that a metallic-standard unit is in truth as nominal as any other, the author argues that all states have in fact defined the monetary unit only "historically," but lack of space forbids discussion of this point.

Knapp does not deny that it is to the advantage of a state to adopt metal, and in particular gold, as the material of its money. He explains that the advantage consists in the steadied foreign exchanges obtained with states which use the same metal. Other methods of obtaining steadied exchanges are also possible, and the future may see their practical development. But except for this benefit to the state's foreign money relations, says Knapp, there is no superiority in metal money. This view of the author is due to his complete failure to understand the service of money as a standard of deferred payments. For evidence of this failure, see, for instance, pages 15 and 38–40.

Only those metallists who insist upon explaining the value of inconvertible paper on the ground that, in spite of its *de facto* inconvertibility, it is based on "credit" will have any difficulty in granting that at a given time a money may exist as a standard of prices, *i. e.*, as a measure of exchange values, without being composed of a valuable material or being based on one so composed. Knapp's insistence upon this possibility can hardly be regarded as a contribution to the theory of money. His view, however, that the value of the money unit is in all systems nominal—this is new. At least it is new in this definite and logical form. It seems to the reviewer, nevertheless, that the more discerning writers who (at least as precept makers) are "metallists" have impliedly held Knapp's view without using his terminology. The current propositions that "the value of money is not derived from the value of bullion, but the value of bullion is derived from that of money (except as it comes from manufactured products of bullion)," and that "the value of money is in no sense 'intrinsic,'" while they do not measure up to Knapp's statement in comprehensiveness, do contain nearly all the truth that is to be found in the "nominal" theory. Ricardo's famous statement, that paper money is money with a 100 per cent seigniorage, contains a strong suggestion that the value of inconvertible money and that of metal money come from the same kind of a source. Certainly it was recognized, before the appearance of Knapp's work, that the practical equality of bullion and "face" value of money depends upon (1) free coinage of bullion and (2) free melting down of a coinage maintained at full weight. That is, we long ago came to understand that the value of money is in no sense "intrinsic." If Knapp, in calling its value "nominal," means more than this, the surplus of meaning is not evident. Assuredly competent thinkers today recommend a metal money, in the interest of internal trade as distinguished from foreign trade, only because the comparative stability of the money supply is guaranteed by this device, and not because of devotion to any popular fallacies regarding intrinsic value.

The reviewer is able to find nothing more, at bottom, in the author's concept of nominal value than legal-tender power, whether lodged in a material which possesses utility and exchange value as such, or in a material of no utility (see section 1, pages 1–20.) The term "nominal value" might suggest purchasing power lodged in a worthless material. But although among economists purchasing power is commonly recognized as the proper concept of "exchange value," the author of the *Staatliche Theorie* expressly abjures this notion for all purposes. However difficult the precise theoretical definition of this concept may be, it is mere nonsense to deny its necessity and importance. One therefore reads with amazement the following passages written by the author in explanation of his book:

> Whoever makes use of [the term "purchasing power"] merely helps to entangle a subject which can at best be disentangled with difficulty. . . . The purchasing power of money within the state is merely the reciprocal of prices. It changes, therefore, only as prices change, and these depend on bargaining power [*Machtverhältnisse*]. A general fall . . . or rise of the purchasing power of money *can no more take place than a general rise or fall of prices*.[1] . . . The requirement that money should preserve a constant purchasing power is a logical absurdity—[*logisches Unding*],[2] for it signifies that in all lines of business the bargaining power of the parties shall remain unchanged![3]

If the theory that the monetary unit of value is in all cases purely nominal signifies merely that the amount of legal-tender power conferred by the state upon pieces of paper or metal has no inherent or necessary dependence upon the physical mass of the pieces, the doctrine cannot be contested. To the reviewer it seems that all Knapp says reduces itself to this doctrine. Now if value of money be conceived as legal-tender power (*i. e.* power to pay obligations) expressed by names (*e. g.* marks, pounds, dollars) which the law defines in terms of physical mass, it amounts to an identical proposition to assert that the value of money is determined by the state and has no necessary relation to physical mass. The important and really difficult thing to explain is the principle which governs the exchange value or purchasing power of money. The purchasing power of the legal-tender unit over commodities—*i. e.* over definite quantities of goods—fades away

[1] The italics are the reviewer's.

[2] This, of course, not only makes nonsense of the quantity theory, but makes the attempt to construct any such theory nonsensical.

[3] *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*, 1906, pp. 1696, *et seq.*

as the prices of these commodities mount. Knapp's statement that there cannot be a general rise of prices is absurd. By this mistake he has excluded himself from investigating the real question of interest in the field of inconvertible paper. The generally accepted doctrine on this subject would seem to be that a paper money, when once it has attained general acceptability as a circulating medium, through whatever historical circumstance (presumably an initial convertibility or possibility of convertibility), may possess a purchasing power or exchange value which will, other things remaining the same, vary inversely with the quantity of this money issued. Be this doctrine good or bad, a partial truth or all the truth, Knapp has not even reached a position for discussing it.

In spite of its defects, Knapp's work deserves the earnest study of every monetary theorist. It is especially to be commended for the high conception of theory it shows in rejecting all dualistic explanations. It makes out a strong case against many careless and superficial explanations found in contemporary treatises.

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*Das Verhältniss der deutschen Grossbanken zur Industrie mit besonderer Berüksichtigung der Eisenindustrie.* By Dr. OTTO JEIDELS. Leipzig, Duncker and Humblot, 1905.—271 pp.

The banks to which reference is made in the title to this monograph are the Deutsche Bank, the Diskontogesellschaft, the Dresdner Bank, the Darmstädter Bank, the Schaafhausenscher Bankverein, the Berliner Handelsgesellschaft and the Nationalbank für Deutschland. The various branches of the iron industry, the relations of which to these banks are especially considered, are the coal and iron mining industries, the production of pig and bar iron and steel, various industries in which iron or steel are the chief raw materials used, including the manufacture of railroad cars, the manufacture of machinery of all kinds, the electrical industries, and transportation by sea and rail. The purpose of the monograph is to show how in recent times, especially since 1895, the development of these branches of industry and of these great banks have gone hand in hand, each conditioning and influencing the other.

In the first chapter are treated the purposes for which industry in general and the iron industries in particular need credit and the capacity of the different classes of German banking institutions to supply it. In this connection are distinguished the functions of the banks of issue, in particular the Imperial Bank, and those of the great institutions of