CHAPTER IV.

THE CHECK SYSTEM.

IN the preceding chapter reference has been made more than once to the transfer of deposits by one holder to another, and to their consequent use as currency. It is now necessary to examine more closely the simple machinery by which this transfer is effected. The depositor, or the creditor of a bank, who has to make a payment to some other person, has his choice between two methods of making it. He may demand money from the bank, in the exercise of his right as a creditor, and deliver this money; or, with the assent of the person to whom he has to make payment, he may give to this person an order on the bank for the money, or what is commonly called a check. If he adopts the latter method, a payment for goods or of a debt is effected by the simple transfer of a right to demand money from the bank; and so too if the recipient of the check gives it in payment to some third person, and he to a fourth, and so on. To this extent the check is plainly made a substitute for the sum of money for which it calls. It represents no particular money or group of coins, for, as we have seen, the deposit

Deposits used as currency.

Simplest case of payment by check.

is likely to have been created by the bank in exchange for some security bought by it, and is, therefore, a naked right to demand, and not a claim to any particular cash; and even if the deposit originated in the lodging of money by the depositor, it has in this case also become a naked right to demand and does not imply any claim to the money actually deposited. But the transfer of this naked right, in the case supposed, is made by the agreement of the parties to serve the same purpose as the transfer of money, and the right thus becomes a substitute for money.

The effectiveness of this substitution, however, is increased and the use of the deposit greatly prolonged, where it is the practice for the transferee himself to deposit the check, instead of demanding its payment by the bank, or seeking his opportunity to use it in some payment of his own.

If we suppose all the parties concerned to keep their accounts with a single bank, and suppose a check for $2,000 to have been drawn by A against his deposit in the bank and given by him to B in payment for goods, B may deposit this check to his own credit as he would money. The bank then makes the necessary changes in its accounts, cancels its liability for $2,000 to A and recognizes a liability for a like amount to B, and thus the transfer of the right by A to B is made complete. This novation, or change of creditors, to which the bank has made itself a party, has not only secured B against the possibility of finding A's deposit in the bank exhausted by other checks drawn by A fraudulently or

by mistake, but it has also made B's right of demand against the bank divisible at pleasure, since this, instead of a right to demand a determinate sum, has now become a right to draw his own check or checks to an amount not exceeding $2,000 in all. In this way checks become the instruments by which rights to demand money may be transferred from one individual to another, in such amounts as the transactions between them may require; and when we consider the great security and convenience of transfer by such means as compared with actual payment in money, there is little need of further explanation of the astonishing extent to which checks are now used, especially in English-speaking communities.[1]

Complex case, where banks are numerous.

If, now, we suppose the parties concerned to keep their accounts with different banks in the same city, we shall have results somewhat more complex but not different in kind. In this case we may suppose the check drawn by A upon Bank No. 1 to be deposited by B in Bank No. 2. If the transaction stands alone, the latter bank collects the money called for by the check, and holds itself liable to make payment to B on demand in sums to suit his pleasure. This makes a change, not only of creditors, but of debtors, and yet at the close,

[1] In July, 1899, the deposit accounts in the banks of the United States and United Kingdom, excluding those with private bankers, were nearly as follows:

United States, national banks	$2,599,000,000
" " State " (estimated) . .	1,999,000,000
United Kingdom, joint-stock banks . . .	3,600,000,000
" " Bank of England . . .	265,000,000

after the payment by A to B has been completed, we have in existence a bank liability of the same amount as that with which we started. Probably, however, in a community where there were several banks, the transaction would not stand alone. At the end of a day's business every bank would be likely to have received in deposit checks upon several, and perhaps all, of the others; each would then have checks to meet as well as checks to collect; and each would naturally make its settlement with every other, not by making mutual demands and mutual payments, but by the offsetting of demands and the payment only of such balance as might then remain due from one or the other. Thus, if at the end of the day Bank No. 1 had received in deposit checks upon Bank No. 2, to the amount of $25,000, and Bank No. 2, in like manner, checks upon Bank No. 1 amounting to $23,000, the account as between the banks would be settled easily by the payment of $2,000 by Bank No. 2 to Bank No. 1. And the result is the same if the operation here traced is multiplied by the number of banks carrying on business with each other in a great city. The settlement of accounts by the banks with each other, however, still leaves the banks collectively under the same liability for payment on demand as before. The liability rests upon the banks, it may be, in different proportions, and is differently distributed among the creditors: but so long as payments are made by checks and checks deposited, the right to demand from a bank which is called a deposit continues to exist in somebody's possession, and is as well fitted to dis-

charge the office of money as when it was first created.[1]

The system perfected by Clearing Houses,

This medium of payment acquires great perfection wherever the Clearing-House system is adopted. Under this system there is a daily meeting of clerks representing all the banks carrying on business at any common centre. Every bank there turns in at a central office all the checks and cash demands which it holds against others and is credited therewith, and is also charged with all checks and demands brought against it in like manner by others. The checks and demands which have thus been credited to and charged against each bank are then summed up, and the balance found to be owed by or due to each bank, as the case may be, it then pays to or receives from the central office in money. By this means a great mass of transactions, which would otherwise require a series of demands by each bank upon every other, are settled at once, and the transportation of large sums in cash from one bank to another is to a great extent dispensed with.[2]

[1] A statement of the working of the check system, under circumstances of different degrees of complexity, is given by Jevons, *Money and the Mechanism of Exchange*, pp. 252–257.

[2] For a further notice of the Clearing-House system, see *note* on p. 52. The transportation of cash referred to in the text is reduced to its minimum by the practice sometimes adopted of using "Clearing-House certificates" instead of money or legal-tender notes. These certificates represent money or notes deposited with the Clearing House, or with some bank which is its representative for this purpose, and are payable on demand; being made in convenient denominations they are used in payments between the banks, and for the purposes of reserve are recognized by the law of the United States as the

Under this system the bank deposit, circulated by means of checks, becomes the most convenient medium of payment yet devised. A stroke of the pen transfers it in whatever amount is needed for the largest transaction, and this transfer instantly becomes the basis for fresh operations, with as complete security against accidental loss as can be imagined. In the strict economic sense this medium, no doubt, has rapidity of circulation in a high degree, while in the sense of actual activity of movement in a given time it far outstrips money or notes, and has been well said to be the most volatile of all the mediums of exchange. Of the entire circulating medium of this country it forms incomparably the greatest, although the least considered, part. Depending for its efficiency solely upon convention and issued as well by private firms as by incorporated banks,[1] it for the most part eludes the regulations which legislatures so industriously enforce upon the other constituents of the currency. Indeed, beyond the requirement of a minimum reserve to be held by the national banks, made by the law of the United States, we may say that the subject is not touched by legisla-

and deposits made the chief medium of payment.

equivalent of the cash which they represent. *Revised Statutes*, § 5192. These certificates must be distinguished from "Clearing-House Loan Certificates," described *below*, ch. vii.

In London the banks and bankers keep large cash balances at the Bank of England and settle with each other by transfers made there.

[1] Of the twenty-seven members of the London Clearing House, twelve are private banking houses. The joint stock banks were not admitted until 1854, nor the Bank of England until 1864.

tion, in this country or elsewhere. The necessity for payment in specie or legal tender paper upon demand, the chief safeguard of value, is the result of general provisions for the payment of debts of any kind. And the chief assurance against excessive expansion on the part of any single bank or banker is given by the certain demand for prompt and frequent settlement, occasioned by the voluntary establishment of the Clearing House, or by the habits of the community, but not by law.

What natural limit is to be found then to the continued circulation of a liability for deposit, when once it is created and set in motion by the process of "discount"?

Plainly, if at any stage the holder of a check, instead of depositing it, demands its payment in money by the bank on which it is drawn, the payment extinguishes the liability. It is, to be sure, quite possible that the money, after a brief circulation, may find its way back, in fresh deposits of cash made by one or more individuals, and so a new liability similar to the old one may come into existence; but, nevertheless, we may fairly say that the use of the original deposit as a substitute for money came to a natural close with the payment of the check. Except, however, in the cases where money is required for some special purpose, as to be sent abroad or to some other part of the country, or for the increase of the stock in the hands of the public, this limit to the circulation of deposits is not of great importance. For, as the withdrawal of specie under ordinary circumstances is merely the exchange of

one medium of payment for another, any withdrawal on a large scale would imply such a change in the habits and preferences of the public as is not often or easily made.

A more important limit is found, however, in the use of deposits for the payment of debts due to the bank. That the depositor can, to the extent of his deposit, pay a debt due from himself to the bank by the relinquishment of the bank's debt to him, needs no explanation. In practice he draws his own check in favor of the bank and exchanges it for the obligation held against him by the bank, this mutual release being for each side as effectual a discharge of liability as a payment in money could have been. Such a payment of the debt due by the depositor, and previously standing among the securities or loans of the bank, finally cancels a liability of the bank, equal in amount to that which was created when the loan was made.[1] It matters little by what process the deposit, or right of demand, finally used by the depositor in payment came into his possession. If he is a merchant, he has probably collected smaller sums which were due to him, for the purpose of his payment to the bank, and these smaller sums are likely to have come to his hands to a great extent in the shape of checks, which, as we have seen, were the instruments for transferring to him the rights of demand which others held against the bank. If he borrowed the means of payment, he in all probability received the amount in a check. Nor is the case

Deposits cancelled by payments to the bank.

[1] Compare the statement of account for operation *b*. on p. 37.

lifferent when there are several banks, and the depositor has received his collections in checks drawn upon other banks than his own. As was seen when we were considering this method of payment on page 41, the deposit of these checks to his credit effects a transfer of the liability from the other banks to his own; and here also this liability is finally extinguished when he uses it in payment of his debt to the bank.

It is possible, indeed, that the payment should be made by the debtor to the bank in money, or by a check drawn against a fresh deposit of money, and in this case either there is no extinguishment of bank liability by the payment, or only the new liability created by the fresh deposit is extinguished. But in a community where banking is firmly and widely established, the large payments of commerce and of general business are certain to be made, for the most part, in the medium which is most accessible and most convenient for use in large sums, and this medium is undoubtedly that which is commonly termed bank deposits.[1]

[1] A series of investigations made by the Comptroller show that about ninety per cent. of the National Bank receipts, and an even higher per cent. of their deposits, consist of checks and similar instruments. The following table presents the relative percentage of money and credit substitutes for money in the *receipts* of the national banks on particular days in the years 1881, 1890, and 1892:

	June 30, 1881.	*Sept. 17, 1881.*	*July, 1, 1890.*	*Sept. 17, 1890.*	*Sept. 15, 1892.*
Money . .	8.23	8.15	8.54	9.70	10.20
Checks, etc. .	91.77	91.85	91.46	90.30	89.80

—*Comptroller's Report* for 1896, pp. 57–97.

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Hence a correspondence of loans and deposits.

It appears then that deposits are created by the act of the bank, when loans are increased, and that they are cancelled when loans are paid.[1] There is, therefore, a rough correspondence between the movements of loans and of deposits. This correspondence may be weakened by the actual flow of money to or from the bank, but in the ordinary movements of business it is tolerably close, and where it fails the apparent exception will be found to be explained by some special condition of the case.[2] It will be found in general that, at times when banks are increasing their operations, their deposits swell, and that when they are contracting, their deposits fall. The true connection between these movements is often forgotten, but its nature cannot be mistaken by anybody who will observe the steps by which an ordinary "discount" is placed at the command of the borrower.

[1] For some striking remarks on this subject, see Hamilton's report on a National Bank, *Works* (Lodge's edition), iii., 128. See also *Quarterly Journal of Economics*, i., 403.

[2] The weekly statements of the New York banks for November, 1890, are a good illustration of the movement of loans and deposits, at a period of great financial disturbance, when there was a heavy contraction of loans and some serious withdrawals of cash. The aggregates, stated in millions, are as follows:

	Loans.	*Deposits.*	*Specie and Legal Tender.*
November 1	$399.8	$396.3	$99.8
" 8	398.9	392.2	95.5
" 15	393.3	386.6	95.8
" 22	387.3	381.7	95.5
" 29	384.6	378.6	95.

For the special conditions affecting the banks during these weeks, see the *Commercial and Financial Chronicle, passim.*

It has already been suggested that the use of deposits and checks is most highly developed among the English-speaking peoples. That the scattered branches of the English race should in this respect have followed the example of the mother country is not surprising; but the reasons for the difference in practice between England and the Continent are not so clear.[1] The difference itself, however, is strongly marked. The American or Englishman who is in the habit of receiving and making frequent payments avoids the keeping of cash in hand, deposits his receipts, and pays all except the smallest sums by checks. As a consequence, the establishment of a bank is an early symptom of the growth of trade in a small community of English blood. But even in large cities the French or German trader finds it most natural to keep his own strong box; even large establishments adopt but slowly the practice of depositing. And in Italy, where banks of deposit flourished long before their introduction into England, they are sparingly used and make their way with some difficulty against the more recent national habit. In these cases the silent choice of custom, which leads one people to prefer coin and another notes and a

Use of deposits affected by national habit.

[1] Bagehot plausibly conjectured that the immunity of England from foreign invasion and domestic revolution has made the growth of confidence possible, to a degree not permitted by the disturbed condition of the Continent for generations past. *Lombard Street*, p. 90. But this explanation appears unsatisfactory, in view of the frequently robust faith of Continental traders and speculators, and of the ease with which English-speaking peoples establish deposit banks under the most untoward circumstances.

third to prefer a mixed currency, also leads to the personal custody and direct delivery of cash. The effect is to be seen, not only in the distribution of banking institutions, as to which the difference between the countries named is extreme, but also in the proportion which the deposits of the great banks in those countries respectively bear to their loans or private securities.[1] Upon the Continent there is also a preference for holding the engagement of the bank in the form of a note, rather than in that of a deposit, but in England or America, if the note is used for any thing beyond the small purchases of every-day life, it is usually from necessity rather than choice.

and by local conditions.

Peculiarities of national character are not the only conditions, however, which affect the use of deposits as currency in a given country. The extended use of a deposit and check system necessarily implies convenient access to banks and also a certain extended scale of operations. *Ceteris paribus*, then, the system will naturally be stronger where population is dense or communication easy,

[1] The published accounts of several great banks, at nearly the same time in October, 1899, afford the following comparative statement, the several currencies being reduced to dollars, at the rate of £1 or 25 francs for $5, and the amounts given in millions and tenths of millions:

	Loans.	*Deposits.*	*Notes.*
Bank of England	$240.5	$258.5	$141.
" " France	177.5	144.	776.
" " Belgium	21.	81.6	102.2
" " Netherlands	55.	2.	88.3
Reichsbank of Germany	260.	118.9	293.8
Austro-Hungarian Bank	105.2	——	294.5
Banks of New York	705.9	774.9	15.6

than in a sparsely settled country or where intercourse is difficult; manufactures, commerce, and general trade will afford it a better field than agriculture; and, comparing one period with another, its development in a country with increasing population and capital and with diversified pursuits will be progressive and rapid. Accordingly we find that in the United States the city banks have extended the deposit system much farther than the country banks[1]; that in 1899 the system is developed much farther than in 1875; and that, to compare the banking of seventy-five years ago with that of to-day. the United States Bank at the height of its prosperity was in this respect in as marked contrast with the national banks of to-day, as are the banks on the continent of Europe.[2] The full extent to which this development has now gone is seen, not in the mere

[1] The reports of the national banks for July, 1875 and 1899, show the comparative standing of the "reserve city" banks and of the country banks to have been approximately as follows, representing capital and surplus in each case by 100:

	City.		*Country.*	
	1875.	*1899.*	*1875.*	*1899.*
Capital	100	100	100	100
Loans	187	410	130	214
Individual deposits	144	356	77	241
Notes	34	12	60	29

[2] A comparison of the second United States Bank, at its greatest expansion in 1832, with the average condition of all the national banks in September, 1899, taking the proportions for an equal amount of capital for the former (which had no surplus) and capital and surplus for the latter, shows the following contrast:

	1832.	*1899.*
Capital	35 millions.	35 millions.
Loans	70 "	103 "
Individual deposits	9 "	100 "
Notes	26 "	9 "

amount to which bank deposits have risen on the average, but in the vast aggregate of transactions effected by this rapidly circulating medium, as shown in the reports of the Clearing House. These reports contain the record of a mass of business, inconceivable in its amount and complexity, such as, it is certain, could not have come into existence without the aid of this powerful agent.

NOTE.

To illustrate the working of the Clearing-House system, we will suppose the case of six banks carrying on business in the same town. On a given morning we will suppose the messengers of these banks to meet at the Clearing House, each bringing the checks received by his bank in deposit on the previous day, as follows:

No. 1, checks on	No.	2,	$6,500	No. 4, checks on	No.	1,	$8,750
" " "		3,	9,200	" " "		2,	4,700
" " "		4,	7,100	" " "		3,	6,740
" " "		5,	6,250	" " "		5,	5,820
" " "		6,	4,500	" " "		6,	5,140
			$33,550				$31,150
No. 2, checks on	No.	1,	$7,800	No. 5, checks on	No.	1,	$8,740
" " "		3,	4,100	" " "		2,	4,620
" " "		4,	5,760	" " "		3,	9,250
" " "		5,	6,340	" " "		4,	7,680
" " "		6,	5,870	" " "		6,	5,940
			$29,870				$36,230
No. 3 checks on	No.	1,	$6,750	No. 6, checks on	No.	1,	$3,700
" " "		2,	4,270	" " "		2,	4,100
" " "		4,	5,900	" " "		3,	6,740
" " "		5,	6,400	" " "		4,	9,250
" " "		6,	5,940	" " "		5,	7,850
			$29,260				$31,640

The sum of all the checks brought in is $191,700. If, now, we credit each bank with the checks which it presents against the others, and charge it with the checks presented by them against it, we shall

find that No. 1 is charged with $35,740 and credited with $33,550, that No. 2 is charged with $24,190 and credited with $29,870, and so for the others, and, therefore, that,

No. 1 owes a balance of	$2,190		
No. 2 *is owed* " "		$5,680	
No. 3 owes " "	6,770		
No. 4 owes " "	4,540		
No. 5 *is owed* " "		3,570	
No. 6 *is owed* " "		4,250	
	$13,500	$13,500	

If, then, the debtor banks, Nos. 1, 3, and 4, pay into the Clearing House the sums due from them amounting to $13,500, and the Clearing House pays out to the creditor banks, Nos. 2, 5, and 6, the sums due to them, of like amount, the result will be that every bank will, in effect, have collected payment of all the checks which it had received, and will have made payment of all the checks drawn against it. This settlement of checks amounting in all to $191,700 will have been made by the payment of $13,500, and transactions apparently involving thirty separate demands, each bank being the creditor of five others, will have been settled by a series of additions made at a central office, followed by three payments to and three payments from a common fund.

An account of the transactions of the New York Clearing House, one of the two largest in existence, is given in the *Comptroller's Report* for 1890, p. 69. In 1899 that Clearing House settled the balances of sixty-three banks, and of the Assistant Treasurer of the United States. In 1899, the year of largest business, the average daily exchanges were $189,961,029, the transactions on some days exceeding $300,000,000; and these exchanges were settled by the payment of balances averaging daily only $10,218,448. Since the foundation of the establishment in 1853, the balances actually paid have amounted on the average to only 4.76 per cent. of the exchanges effected. For the details of the process of clearing, see Bolles, *Practical Banking*, for the clearing houses of the United States; and Gilbart, *Principles and Practice of Banking*, for the London Clearing House. For the present wide extension of the system in this country and elsewhere, see a pamphlet by D. P. Bailey, *The Clearing-House System*, reprinted from the *Banker's Magazine* (New York), 1890; also Raucbberg, *Der Clearing und Giro-Verkehr*.