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³ SOME NOTES ON GRANARIES AND STOREHOUSES IN THE PAST //

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U. S. Department of Agriculture.

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EGYPT

It has been said that the story of the warehouse begins practically with the dawn of civilization.

Probably the earliest record of the use of granaries by the Government is the story of Joseph in Genesis. Joseph as the agent of Pharaoh gathered and stored, in years of abundance, one fifth of all the harvests. The improvident Egyptians lived well and laid by no stores. When famine came they and the people in the nearby countries went to Joseph and bought food from him and were saved from starvation. This was about 1700 B.C. In addition to the Bible story referred to above Flavius Josephus tells the story in some detail relating that "when famine came the multitude ... repaired in crowds to the stores and magazines of the king." The great Egyptologist, Erman describes Egyptian granaries in use at even earlier dates than the period of Joseph. They were surprisingly like our elevators even as far back as 2830 B. C., the grain being poured in at the top and taken out at the bottom by means of a sliding door. Erman states that "These granaries were at all periods built essentially on that same plan." Under the Middle Empire, about 2130 B.C., there was also another type used having a flat roof reached by an outside staircase. The roof was a good place for the "Scribe" "for here he could keep account of the sacks that were brought up and emptied into the granary."

In its issue for November 1930 the Journal of Economic and Business History published an article by William Linn Westermann entitled "Warehousing and Trapezite Banking in Antiquity" which contains much information on this subject. Mr. Westermann writes in part as follows:

"For Ptolemaic Egypt the general picture is that the use of the coinage system was introduced by the Macedonian rulers and developed by their Greek helpers, but that the warehousing system in kind, characteristic of the old Oriental or pre-greek civilization, persisted strongly beside it. The granary system, so long native to the country, actually shows a higher development than the banking system; for the state granaries permitted transfers from the grain account of one client to that of another client on order of the first client, under the system called giro in European financial parlance, in which no actual transfer of the grain occurred. Also a real payment in grain could be made on order of a depositor of grain in the state thesauros to another person who carried no grain account at the granary. This is an actual application of the check system to payment in kind; but no transaction of the money banks similar to this has as yet been found..."

"Despite the predominance of money economy in the first two centuries of the Roman Empire, four governmental agencies existed which perpetuated the old system of exchange in kind. These were the great personal domains of the emperors; the service of grain supplies for the cities of the empire (the *annona civica*); the requisitions for maintenance of the civil staff of the provincial governors; and those for the imperial legions in the provinces (*annona militaris*). The rental accruing from the imperial domains and the service of the grain supplies for the cities, notably that for Rome, necessitated the maintenance of very large imperial granaries. Thus the framework of the warehousing system of the ancient Oriental *oikos* perpetuated itself in the conditions of the Roman imperial *fiscus*, though in greatly restricted form.

"Again it is the Greek papyri found in Egypt which best permit us to see the actual operation of the warehousing system as applied under Roman imperial control. For Augustus Caesar, after the defeat of Marcus Antonius in 31 B.C. and the death of Cleopatra, had laid upon Egypt, as its particular and primary duty to the empire, the task of furnishing the grain necessary to provision the city of Rome. For the storing of the grain destined for this purpose especial granaries were constructed in Alexandria...

"In accordance with the traditional policy of the Roman Republic and the early Empire of minimal interference by the government in business life, Augustus Caesar abolished in Egypt the Ptolemaic system of a state monopoly of banking. In consequent of these conditions banking in its ancient form grew, particularly in Egypt, to proportions such as had been unknown before... The new departures were that transfers could be made from the deposit account of one client to that of a second client of the same bank and that payments in cash could be made, on direct order of a depositor, from his account to a second person, though the second party might have no account in the bank. This development brings a certain analogy to the modern check system...

"The state granary system continued to receive and take care of all payments of taxes and rents in kind due to the provincial government from its Egyptian subjects. In addition it carried accounts of grain deposits for private persons against which these persons might issue orders. Such orders might be either for payment by mere bookkeeping transfer to the account of another depositor (*giro transfer*) or for direct payment to the grain itself (comparable to our check system). As an example of the first type of case, I translate the following order, written on a piece of pottery, which is dated by the style of writing as of about 200 A.D.: 'Prophetes to Amonios greeting. Pay from my deposit to the name of Loukillas a third and an eighth of an artab wheat. Total 11/24 of an artab of wheat.' A still greater refinement of the warehouse deposit and payment system lies in the possibility on the part of the government granary in one town of accepting payment of rent or taxes in kind which were actually due to be paid at a granary in some other town or village.

"It is impossible to discuss here the gradual return of the ancient world from the situation of dominant money economy and its corresponding trapezite banking business to the older condition of dominant exchange based upon kind. In Egypt the process of reversion to the older economic order was well under way in the Fourth Century. Stated with all caution and in the simplest terms, it is evident that the business life of antiquity had developed fairly adequate methods of housing and using its surpluses of wealth whether in kind or in money."

CHINA

In "The Economic Principles of Confucius and his School" by Huan-Chang, Chen (Columbia Univ. Studies in History, Economics and Public Law v.44 and 45, N. Y. Longmans, Green & Co. 1911) the use of granaries by the Chinese is fully described. From this interesting account the following extracts have been taken:

"In ancient China the whole empire was an agricultural community, so that the grain was not only the subject of production and consumption, but also the means of exchange and distribution. In fact, in modern times money is a most important factor of industrial capital, but in ancient times grain was the most important...

"The Canon of Poetry says: 'Bright are those extensive fields, a tenth of whose produce is annually levied. I take the old stores and with them feed our farmers.' Cheng Hsuan comments: "When the granaries were more than sufficient, the people were allowed to borrow grain on credit or on payment of interest. Taking the old stores to feed the farmers, on the one hand, was to change the old grain of the government; and on the other hand, it encouraged the people to keep their new grain. This was the law of ancient times practised in good years. "Even in good years there might be poor people in want of food; hence the government helped them out by lending them the old grain, while it kept the new grain in its granary.

"According to the Official System of Chou, there is a collector of the taxes of the country (lu shih), who takes charge of the three kinds of grain which come from the three kinds of taxation. First, when the grain is distributed to the people, he calls them up by the names of the tax roll, and distributes proportionately the stores. Some are for the maintenance of life or consumption, and some are for use in business or production; for both purposes the people are required to pay the same rate of interest. Second, there is also another law for the lending of grain without interest. In spring, when the people are in want of grain, he gives it to them. In autumn, when the people have plenty of it, they return it to him. In this way the government exchanges the old grain for the new, and the people are enabled to meet their

their needs. It benefits the people, but costs the government nothing.

"During the Chou dynasty, the lending of grain to the people was a policy for winning their hearts. Therefore it was practised by many noble families - such as the Han of Cheng, the Yo of Sung, and the Chen of Ch'i. The result was that they all became controllers of their states. These facts are sufficient to show the importance of lending grain by the government. First, it relieved the people; and second, it strengthened the power of the ruling house...

"From the system of free granary, a system of 'village granary' was developed. The difference between these two systems was that the former distributed grain freely, while the latter loaned it. But, since the free granary was also called village granary, and since the grain of the free granary in the Tang dynasty was also allowed to be loaned, the system of village granary was practically the same as that of free granary. However, the main purpose of the free granary was distribution, and that of the village granary was loan, so it is best to make a distinction between them. More-over, the sources of the free granary came from an addition to the taxes, and the granary was interfered with by the government; but those of the village granary came entirely from voluntary contributions, and the granary was controlled solely by the people. Therefore, the system of village granary was an independent institution, an outgrowth from the free granary.

"The system of village granary was established by Chu Hsi. In 1719 (1168 A.D.), when the people of his district (Fuhkien province) were hard pressed for food, he asked the prefect to give him six hundred bushels of rice from the constantly normal granary for the purpose of relief. In the summer the people received the rice, and in the winter they returned it, together with 20 per cent interest. After that year, this was repeated every year. When the crop was not good, one-half interest was remitted, and when it was very bad, the total interest was remitted. Throughout fourteen years, three granaries were established for the storing of the rice which came as interest. After he returned the original amount of rice to the prefect, the existing amount in the granaries was three thousand one hundred bushels. Then no interest was required; but when the people returned their loan, for each bushel three pecks of rice were added to the principal in order to save waste. Hence, around his village, even when bad years occurred, there was no want of food. This system was called village granary. In 1732 (1181 A.D.), when he suggested this system to the government, it was given by the government to all districts as a model...

"Since the system of village granary was established by Chu Hsi, it has been practised by many followers. Under the Sung dynasty there were some modifications - the grain was also loaned to farmers who owned no land, while originally it was loaned to land-owning farmers only, and no interest was required. In the

the present dynasty this system still exists. In 2275 (1724 A.D.), the following was the rate of interest: for one bushel of grain loaned in summer, two pecks should be paid in winter as interest, that is, a semi-annual interest at the rate of 20 per cent. According to the situation of bad crops, a remission of either a half or the whole of the interest was made. After ten years, when the interest would be more than double the amount of the original grain, the rate of semi-annual interest should be reduced to 10 per cent. Although there were small modifications in later times, its essentials remain the same."

ATHENS

"The Hellenic State took far greater care of the citizens in general than does any modern State, in which any such care would be represented as an interference with business." This statement is made in the introduction to E. G. Sihler's translation of Lywias' Oration against the grain-dealers. (Hellenic civilization, edited by G. W. Botsford and E. G. Sihler, N. Y. Columbia Univ. Press. 1915. p. 426) Xenophon tells us that in Athens a knowledge of the grain business was considered one of the qualities of a statesman. This was because Attica needed a considerable importation of grain, as the country did not produce a sufficient amount for its needs. As far back as 400 B.C. "Athens had public storehouses for grain in the Odeum, the Pompeum, the long Portico, and in the dock-yards, where grain, bread and the like, were sold to the people. It is not, however, perfectly clear, whether the grain stored in them belonged to the state alone, or whether the grain of the dealer also was sold and measured out there. The last was certainly the fact in particular instances. It is also certain, that considerable supplies of grain were purchased at the cost of the state, which must have been deposited in those storehouses. To make the purchases of grain, officers were appointed called sitonae. Their office was not an unimportant one, since to obtain it evinced the possession of the especial confidence of the people. There were also other officers appointed, called apodectae, who received the grain and caused it to be measured... Of course grain was sold to the people at a very low price... Perhaps the grain which had been bought, was sometimes given to the people gratuitously; for to give a decided opinion in relation to this point in the failure of adequate accounts is impossible." (The Public Economy of the Athenians by Augustus Boeckh. Boston, Little, Brown & Co. 1857p. 121 et seq.)

Athens had various warehouses in the Piraeus which was the city's port, but it is not evident that these warehouses were operated by the city although their operation was undoubtedly closely supervised by the city authorities.

ROME

An interesting and informing series of articles by H. H. Manchester entitled "History of the Warehouse since 2200 B.C." was published in Distribution and Warehousing 1922-26. From these the quotations which follow are taken:

"...for centuries Rome had in her warehouses the over-supply of the world's goods while they were in process of distribution..."

"In the vicinity of Rome itself there were some 290 warehouses. The public warehouses extended around the docks of Trajan for about three and a half miles...

"The warehouses of Galba, which furnished the model for most other Roman warehouses, were composed of courts surrounded by porticoes wide enough to allow the free circulation of carts, and the unloading of merchandise under shelter. The magazines in which the goods were kept opened upon these porticoes, and were commonly two stories high. The lower floor was usually used for the heavier and more common merchandise, such as tin, marble, wine oil, grain, honey, dried fruit, and dried fish; while the upper floor was reserved for the rarer and more costly wares, and for the offices of administration.

"In excavating one of the ancient Roman warehouses, not many years ago, a large supply of ivory, amounting to some seven hundred cubic feet, was discovered. This in itself implies a trade with far-off India, astonishing in amount when we realize that it was beyond the frontiers of the Empire."

EUROPE IN THE MIDDLE AGES.

The Roman Empire was gradually broken to pieces by barbarian invaders who destroyed the roads, made the rivers unsafe and allowed the seas to become infested with pirates. This condition put an end to commerce and compelled each region to support itself with its own products. Mr. Manchester writes:

"The warehouses of even so great a city as Rome were used no longer for their original purpose, and crumbled into ruins. In some cases their destruction was so sudden, either from violence or fire, that in recent years excavations have disclosed various merchandise still contained in the storerooms where it was placed for safe keeping ...

"The general disorganization of internal trade and external commerce lasted throughout several centuries. In the meantime the Mohammedans had carried the crescent from Arabia into Asia Minor, and all along the northern coast of Africa into southern Spain. Here they rapidly developed a civilization founded upon that of the lands they conquered, and it should be kept in mind that the Dark Ages of Europe were the brilliant ones of the Mohammedan world.

"Moslem commerce flourished all the way from India to Spain... In all their trading centers the Moslems constructed important warehouses where the merchandise brought in by caravans from the interiors, and that imported by ships from the Mediterranean and the Red Sea, were stored to be exchanged in the markets, which were a prominent feature of trade at the period.

"Commerce between the Mohammedans and the Christian countries of Europe was theoretically prohibited both by the Mohammedans and the Church, but Mohammedan wares found their way into Europe through Constantinople, Rhodes, Sicily, Spain, and even Venice. Arabian money, for example, has been discovered in as far distant countries as Finland...

"The principal goods stored in Islam commerce were silks, cottons and rugs among textiles; gold and Damascus steel among metals;

perfumes, spices, and ostrich plumes. Even more important than these was the first introduction from the Arabs of several articles now accounted necessities. One of these was cane sugar, which was probably first manufactured in India and was destined to supersede honey, the only sweetener known to the ancient world. The silk worm and the mulberry tree together came from the Arabs, who had imported them from China. Glass and enamelling, although known to the Romans, seem to have been reintroduced from the East. Windmills, which had been known only as toys to Graeco-Roman philosophers, were practically developed by the Arabs, and brought from the East into Europe...

"These new products, although known to the East a few centuries after the downfall of the western empire, in general were not introduced into Europe until during the Crusades and, as a result of the intercourse between East and West brought about by these religious expeditions.

"In the meantime commerce was slowly being opened up once more in Europe, and in its new development the warehouse was playing an absolutely necessary part - one more important than ever before, or possible than ever since.

"The first great commercial city of Europe to develop was probably Venice. Her importance began about 1000 A.D. when she made a trade treaty with the Mohammedans, and got control of the Adriatic. She had practically a monopoly of the salt trade between Hungary and the East, as well as for many years of the importation of eastern products to the West.

"When Constantinople was temporarily in the hands of the Crusaders, at the beginning of the 13th Century, Venice was assigned a section of the city where she built herself warehouses, and established an important depot for trade. On this account the Doge of Venice took upon himself the title of 'Lord of Three-Eighths of the Roman Empire'.

"In the 14th Century she sent out three great trading fleets, each under Government control and convoyed by warships. One was sent to the Black Sea, another to Alexandria, and the third to far off Southampton in England or Bruges in Flanders. All the trading was strictly under Government control, for in those days of piracy the expeditions themselves were made possible only by the Government's warships...

"Warehouses were established at each trading point, and great fairs were regularly conducted where the Venetian importations were exchanged for those of the country. The Government kept a constant trade advisor or consul at each principal port...

"At Bruges in particular, which was a free city and gave special privileges to foreign merchants, the Venetian warehouses were under their own control, and practically independent of the city...

"Another great Mediterranean city was Florence. Perhaps the best idea of her trade may be obtained from the list of her guilds, the more important ones of which governed the city. Her seven great guilds included the judges and notaries, the bankers, the dressers of rough imported cloth, the woolen manufacturers, the silk trade, the furriers, and the physicians and druggists. With the exception of the law guild, these were all dealers in international trade. Even the bankers had frequent and important transactions in countries as distant as England. Besides the seven great guilds, there were fourteen lesser ones, which included chiefly retailers and craftsmen and need not be enumerated...

"The Calamala, or cloth dressing guild, only dressed and dyed imported goods, which they obtained chiefly from Flanders. In 1338 they owned twenty warehouses in the city, and dressed more than 10,000 pieces of rough imported cloth...

"From the facts already given it is discernible how necessary warehouses were to foreign trade. In order to protect the traders and the goods, the trade at distant points had to be carried on either through fairs or through permanent depots. The fair required a warehouse, though sometimes only temporarily. A permanent warehouse, however, was an essential feature of every trading post. Thus all through the Middle Ages and Early Modern period we find warehouses at the ends of what may be called the tentacles of civilization, carrying the manufactured products of Europe into distant lands, and drawing from them the raw products or merchandise peculiar to the district.

"This is illustrated, even better than in the Italian cities, in the trade of the Hanseatic towns of Germany.

"As early as the 10th Century German cities began to combine in order to make safe the trade routes between them, and to carry on foreign trade. In 987 A.D. we hear that Cologne merchants maintained warehouses in London to further their commerce with England.

"A league was formed between Hamburg and Luebeck, probably in 1169 A. D., which may be considered the beginning of the German Hansa. Soon afterwards it was joined by Cologne, Bremen, Brunswick, Magdeburg, Danzig, and by 1300 there were seventy cities in the league... It established five great foreign depots with their warehouses - one at Bruges in Flanders, another in Lisbon, a third in London, a fourth at Bergen in Norway, and a fifth at Novgorod in Russia...

"Each trading post was equipped with the devices known to the period for handling merchandise. These, however, were not greatly improved over those of the Roman era. At some time during the Middle Ages parallel bars had come in both for carrying merchandise and sliding it down. The wheelbarrow had been invented, which was an important aid in handling small materials. The wheeled truck had also come into use, and was both drawn by horses and pushed by men...

"The most important machine for handling heavy wares was still the treadwheel crane, which dated back to the Roman period...

"Another important function of the warehouse ... is as a public place in which to deposit goods for safe keeping whether they are to be distributed direct from the warehouse or to be returned to the depositor...

"We are concerned here not in the growth of private vaults but of public storehouses, and in the idea rather than the building.

"As far back as Hammurabi the first great king of Babylonia, 4000 years ago, there must have been certain men who were willing to accept grain or other valuables for storage. For the price for this service is fixed in his code as '5 ka per gur per year,' or about one-sixtieth of the value of the goods.

"Deposits of valuables had to be made in the presence of witnesses or by contract. Hammurabi's law read:

"If a man give to another silver, gold, or anything else on deposit, whatever he gives he shall show to witnesses, and he shall arrange the contract at the time he makes the deposit."

"If he did not follow this procedure, and the deposit were denied, he could not recover his goods. If the deposit were denied but proved, the receiver had to return double the amount. If the goods were lost through pillage or burglary, 'the owner of the house who had been negligent, and had lost what had been given him' had to 'make good, and repay the owner of the wares.'

"In ancient Greece, when the country was harassed by the wars between the cities, and the cities themselves made unsafe by the change from democracy to tyrant and from one tyrant to another, it was a problem to find any place where goods could be put for safe keeping from one year to another.

"In meeting this problem the ancient Greeks hit upon what was perhaps the only possible solution at that period. There was just one place which was likely to be safe from the tyrant or plunderer. That was the temple.

"As a matter of fact the temples for several centuries used to receive valuables for safe keeping, and acted as storage houses for such articles...

"Both the Delphic sanctuary and the parthemon at Athens are known to have been used for such storage...

"During the invasions of the barbarians which overthrew the Roman Empire the idea of the warehouse seems to have well-nigh passed out of existence. But when commerce began to develop again, about the Eleventh Century, there once more grew up a demand for places in the cities better adapted for safeguarding valuables than the ordinary store.

"Besides private persons who performed this service, the most striking public depository in Europe was probably the London mint. It is a curious fact that it was customary for persons to leave their valuables at the London mint for safekeeping, sometimes for only over night but often for longer periods...

"It is food for thought that the first banks were developed out of this custom of receiving valuables on deposit. Such public places of deposit for valuables appeared in Venice at least as early as 1270 A. D. They were not yet banks for they had no capital, made no loans, and merely charged for safeguarding the valuables.

"The first Mediaeval notice that we find of a warehouse receipt dates from 1318, although bankers of Rome gave a similar receipt for money accepted on deposit.

"Similar places of deposit were established in Genoa in 1345, and in Barcelona four years later.

"The certificates of deposit gradually assumed a form on which the depositors could borrow money. But it was the Eighteenth Century before they were developed into checks."

JAPAN

The Beiken Soko, or Rice Warrant Granary System has existed for a long time in Japan according to Professor S. Kawada of the Imperial University of Kyoto in his book *Nogyo Sokoron* (Agricultural Cooperative Warehouses) Kyoto, Japan, 1926. This book which was reviewed by Dr. Hoon K. Lee in *Agricultural Economics Literature* for April 1930 (p.147-148) sets forth the belief of the author:

"That the agricultural warehouses... should be administered in such a way that the farmers should get more profits and better facilities in disposing of their farm products on the market. They should be aided by the State on one side and help themselves by cooperation on the other. They should answer the call of the farmers who want to dispose of their products at the right time and place, and by the best method. This would not only increase the income of individual producers, but would stabilize the position of agriculture as a whole, working as an advantageous factor in an industrial country. Furthermore, they should act as the regulators of the demand and supply of farm products, thus stabilizing the price level. This is the great merit of the agricultural warehouses to aid in bringing about a better national economy. The author believes that the Japanese government is taking a wise step in promoting agricultural warehouses operated on a cooperative basis."

The Rice Administration of Japan operates under the Rice-price Control Act of 1915 and its successors, the Rice Control Acts of 1921 and 1933. The new law went into effect in November 1933. This law provides that:

"In order to reduce fluctuations in the monthly supply of rice, the Government shall purchase rice during November and February (inclusive) when rice is mostly put on the market, and sell it later; but in this case it may be expected that the Government shall announce the maximum quantity beyond which it will not buy..."

"The Rice Administration, which is a part of the Department of Agriculture of Japan, was granted a fund of 700,000,000 Yen to carry on its work. The plan is to use this fund as a revolving fund, although it is recognized that there will be a gradual loss throughout the years. November and December are the harvest months for rice in Japan. It has, up to this time, been the custom of the Japanese farmer to sell his rice as soon as it was harvested, as he wants to get money by its early selling. This practice, of course, glutted the market in November and December and gave speculators a chance to raise the price gradually throughout the remainder of the year up to the time of the next harvest. The Rice Administration will attempt to buy this rice at harvest time, store it, and release it to the market as needed throughout the year, not only at home Japan but also at Korea and Formosa, thus stabilizing the price and improving the condition of the poor."

A full discussion of the control of the production and sale of rice in Japan may be found in Tobata, Seiichi. *Control of the price of Rice*. Japanese council. Institute of Pacific relations. 53p. (Tokyo, Printed by the Nippon press) 1933. Preliminary paper prepared for the fifth biennial conference of the Institute of Pacific relations to be held at Banff, Canada, August 14th to 28th, 1933, and Nagai, Shoichi. *Meaning of the new rice administration law*.

(In Review of administrative establishments, v.9, no.11, Nov. 1933, p.39-50)

Abstracted by Professor Nagai in Agricultural Economics Literature April 1934, p.204-206.

COLONIAL U. S. AND ENGLAND

The descriptions of the storehouses of the Indians as found by the Spanish, French and English settlers must be passed over for lack of time. Mr. Manchester however relates that:

"In Virginia a peculiar institution involving the use of a storehouse was started soon after the founding of Jamestown. This was the so-called 'Magazine' which received the products of its members for export, and stored and shipped them together, likewise receiving and storing imports for distribution. Most of the exports consisted of tobacco, and the 'Magazine' through methods of inspecting this staple, did considerable to raise the quality. This was abolished in 1619 for various reasons, but was soon followed by official warehouses.

"By a law of 1633, a warehouse was to be erected at each of five different points in the colony; at these the inspection of tobacco was to be carried out. To one of the warehouses all of the tobacco produced was to be brought by the planters before the end of December each year. After inspection only the two best grades were to be accepted for storage, and all the tobacco below that was to be burned. Among the inspectors, there was always to be one who was a member of the council; his home was nearest that warehouse. All the inspectors acted under oath, as the destruction of the tobacco was the loss of the planter... These warehouses seem to have been exclusively for tobacco and other exports, as the goods imported were landed and stored only at Jamestown, where they were sold and delivered... Each warehouse was to be in charge of a storekeeper, who was to receive one per cent of what was placed in his care."

"The beginning of the bonded warehouse sprang out of the system of drawbacks in the customs and of the excise system in force after the Puritan Revolution. At that time the drawback plan allowed the merchant, after paying a tariff on articles he imported, to claim a rebate for part or all of the amount of any of these goods that were re-exported within six months or a year, depending on the goods and whether the merchant was an Englishman or a foreigner. This drawback system was, however, subject to many frauds... Perhaps the most serious fraud consisted in smuggling back into the country the goods of various sorts on which the drawback had already been paid... All of these difficulties with the drawback system led to efforts at finding some method which would do away with the objection. The first direct employment of the warehouse system for this purpose seems to have been in the case of goods the importation of which into England was forbidden entirely... In 1700, however, a warehouse system was applied to them whereby they could be imported and stored and again shipped for export, but not sold inland. It was found that this method, at

least on these articles, gave the Government a closer supervision over them and did much to prevent smuggling. The first article that could be sold inland, for which the warehouse system was established, seems to have been pepper... In 1723, Sir Robert Walpole extended the compulsory system of warehousing to both tea and coffee. All tea upon importation had to be warehoused, upon which it paid a duty of 14 per cent. If it were sold inland an additional duty of 4 shillings, or 96 cents a pound, was payable on taking the tea out of the warehouse. In order to assure the payment of the duty, tea merchants were placed under the excise system... In 1723, in order to provide a greater revenue largely through the stoppage of smuggling, Walpole introduced his famous bill for warehousing tobacco and wines... In order to insure the collection of the tax, tobacco was placed under the regulation of the excise, and it was this provision which led to a tremendous agitation against the bill... As a consequence general public opposition was aroused by its excise, though not its warehouse features. At last Walpole, although supported by the king and his party majority in the House of Commons, yielded to the storm and withdrew the bill, thus delaying the general application of the warehouse system to customs. For more than fifty years after Walpole no British statesman attempted to extend the warehouse system. In 1776, however, Adam Smith, the famous political economist, in considering the system of drawbacks and that of warehousing introduced by Walpole, recommended a warehouse system very much, as he said, along the same lines as that of Walpole, but with some of the excise features omitted... Fortified by Smith's idea, Pitt, in 1789, introduced a bill for warehousing tobacco much on Walpole's plan... Pitt's bill at first aroused almost as much opposition as Walpole's... But Pitt pushed his bill to a passage and saw that the law was executed. Thus tobacco and wine were added to Asiatic silks, pepper, coffee, tea and cocoa as products for which an official warehouse system was provided."

The Manchester articles proceed with a description of the development of warehousing facilities in the various cities of the United States - Albany 1813, Rochester 1817, Buffalo 1815, Chicago 1830's etc. - but as these warehouses were not owned or operated by the government no attempt is made to present the information.

The incompleteness of this compilation is fully realized. It is hoped, however, that the most important material in the ancient and mediaeval period has been noted. The "near past" is most inadequate.

Channing, Edward. A history of the United States. N. Y., Macmillan Co. 1908.

"In Virginia almost from the beginning tobacco had been used in lieu of money. In 1730 the Virginia Assembly provided for the establishment of warehouses and for the inspection of tobacco stored therein. The inspectors were directed to issue transfer notes, which might be used in the satisfaction of debts, public and private, in the county or district where they were issued. This system was later more efficiently organized and improved by authorizing the issuing of 'crop notes', which called for the delivery of certain hogsheads of tobacco instead of any tobacco of suitable grade in the warehouse. These notes passed from hand to hand, were good for a year or eighteen months, and formed a safe and convenient currency." In Pennsylvania, at one time, wheat certificates² were also used. In New England the colonial legislatures, from time to time, authorized public dues to be satisfied by the payment of hemp, rye, pork, or other specified commodities at rates which were fixed in the law.³ This was called country pay, and private debts were often contracted and satisfied by the tender of goods, as were the public levies". - v. 2, p. 496-497.

¹In 1742 the laws relating to tobacco inspection were reduced to one enactment (Hening's Statutes, v. 124). This provides that all tobacco exported after November of that year must be inspected at a public warehouse. After the examination the inspector shall deliver to the person bringing the tobacco as many promissory notes as shall be required, "which notes shall, and are hereby declared to be current in all tobacco payments whatsoever ... within the county wherein such inspectors shall officiate and in any other county next adjacent thereto, and not separated therefrom by any of the great rivers or bay hereinafter mentioned." (ibid., v. 132). See also the act of 1748 in Hening, vi, 154; 1761 in ibid., vii, 387. Early enactments are in ibid., iv, 32, 247, 380, 478. On Virginia money problems see W. Z. Rippley's "Financial History of Virginia" in Columbia University Studies, iv, No. 1; W. L. Royal's "Virginia Colonial Money" in Virginia Law Journal for August, 1877.

²Pennsylvania Statutes at Large, ii, 225; iii, 86, 181.

³See, for example, New Hampshire Provincial Papers, vi, 151, where twenty commodities at fixed values can be tendered to the treasurer in payment of the year's tax levy.



