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# Studies in the History of Accounting

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## A Short History of Tallies\*

Rudolph Robert †

THE notched stick, which later developed into the wooden tally, is perhaps the first accounting aid ever employed in the history of man. At a time when the "electronic brain" is stealing the limelight by reason of its fantastic capacities, there is a certain interest in looking back at the remote and curious beginnings, if only to marvel at the length of the road traversed.

Of the antiquity of the tally there is not the slightest doubt, and the scoring of sticks as a means of recording numbers may be traced back to neolithic, and even, according to the experts, to palaeolithic times, though with these extremely primitive instruments we can scarcely concern ourselves. Exactly how they were used is pure speculation.

Indeed, even when we come to study the *modus operandi* of the tallies in medieval England, at the Court of the Exchequer, where they attained an importance unequalled in any other country in the world, certain things still remain obscure and conjectural. This is largely due to the fact that, owing to a disastrous accident which will be mentioned later, the great bulk of the Exchequer tallies was destroyed.

However, much extremely interesting matter has been unearthed about them, as a result of the patient labours of Sir Hilary Jenkinson and the officials of the Public Record Office, as well as by a number of independent inquirers into the subject.

Before giving a brief résumé of what is known about the tallies, it is as well to clear the ground by defining precisely what they were, how they were made, and why their adoption in medieval England attained such widespread popularity.

First as to the definition. The tally as used in the twelfth century Exchequer was an instrument made of wood, usually hazel wood, and has been more fully described as "a primitive form of chirograph, or indented writing, recommended for its superior durability." (Hubert Hall in *Antiquities and Curiosities of the Exchequer*.) The definition could, of course, be elaborated upon, but is probably sufficiently concise for all practical purposes.

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For the details as to the method of cutting—and this was a ritual, meticulously observed—we are indebted to the literary proclivities of a Bishop of London, Richard Fitznigel, who was both a great cleric and a man of wide learning. Member of a family which was to be closely connected with the royal household for nearly 150 years, well acquainted with the legal and financial problems of his day, he left a “famous and inestimable treatise” from which scholars have derived almost the whole of their knowledge of early Government tallies.

His *Dialogus de Scaccario* was written about 1176. One cannot do better than quote from it the passage on the actual technique of cutting:

The cutting is done thus: At the top they put thousands of pounds so that the cut for it will take the thickness of the palm of the hand. £100 the breadth of the thumb, £20 that of the little finger. The cut for £1 is of the thickness of a grain of ripe barley; for 1s. less, yet so that by the two converging cuts something is removed and a small notch made; a penny is marked by a single cut, nothing being removed. On the edge where a thousand is cut you shall put no other number save the half of a thousand, in fashion so that you remove the half of the cut. . . .

The description goes on at some length, becoming increasingly involved, and we need continue no further with it. The worthy Bishop himself remarks “you will understand all this better by seeing than being told.”

In size these early tallies were quite short, extending, according to the *Dialogus*, from the tip of the index finger to the tip of the thumb (some 8 or 9 inches), and in addition to the notching, details of the transaction were inscribed on both of the flattened sides.

The wording (which was, of course, in Latin) followed a similar formula to the cutting and was copied from the tally into the Receipt Roll, or in the Receipt Book of a century later. Properly cut and inscribed, the tally was then complete, apart from the very important procedure of splitting it down its length, though not, it should be noted, down its entire length. The notches were identical on both segments, but one, the “stock,” retained the solid stump of the original block of wood at its end, while the other, known as the “foil,” was much smaller in size. (See Plate IV.)

There, then, in outline we have sketched in for us the actual methods of tally-production and it is only necessary to round off by adding something to the definition which was quoted. The tally, we read, is a “primitive form of chirograph or indented writing,” that is, an acknowledgment made in two parts, and in such a way that, when rejoined, it constituted proof of the parties’ responsibility in the transaction.

The tally was, in effect—and this is the key to a comprehension

of it, even in its later uses—a form of receipt. It acknowledged the receipt of a certain sum of money (or of goods), the stock remaining in the hands of the creditor, the foil being given to the debtor. It was a notched stick, fashioned in a way prescribed by long tradition and according to a set of highly complex rules, which admitted a financial liability on the part of one person to another.

Despite subsequent developments in the use to which the tally was put, it was never any more, nor less, than this—simply a receipt.

Now for the dynamics and the historical explanations. For what reason did tally-making reach the proportions that it did, not only in the age when Bishop Fitznigel was penning the famous *Dialogus de Scaccario* but in the seven hundred years that were to supervene?

There is, of course, the superior durability of wood and the greater availability of this material as against parchment or paper. But the fundamental *raison d'être* of the tally is to be found in the fact that this tangible wooden object, with its careful scoring, was a comprehensible record to the untutored men of that distant past. There is, indeed, some reason for supposing that, in addition to the monks in the monasteries, there was a not entirely negligible laity versed in the arts of reading, writing and arithmetic, but the mass of the population, whether of high or low degree, was illiterate. Henry I stands out as one of the first monarchs of medieval times who had acquired learned accomplishments, and that he put them to good use is evidenced in his organisation of the Exchequer, and in his management of finance. But the nobles, and, of even more importance, the sheriffs responsible for collecting his revenues in the counties, were men who often could not count without the aid of their ten fingers.

Receipts in the forms of scraps of parchment would have been anathema to them. But the notched stick, known to them and to their fathers before them, the wooden tally, which they could interpret by rough and ready inspection, and which threw no great strain on the intellect, was at least acceptable. An incision of the breadth of a thumb represented £100, a simple cut involving no removal of wood from the tally represented one penny, a punched hole (as has since been discovered) one half-penny.

Not only was this method of recording legible, but there was in all probability a general appreciation of the safeguard against fraud which it provided. In any settling of accounts both parties would be obliged to produce their portions of the tally, and the notches and the cuttings would have to correspond. Neither side could falsify the account and "get away with it" as we might now say. That attempts at fraud were sometimes made by dishonest persons, however, will astonish no one, and Sir Hilary Jenkinson, in one of his papers in

*Archaeologia*, mentions the case of a man who was entrusted by the sheriff with 60s. in cash and a tally showing 5 marks already paid into the Exchequer. Very foolishly, as it turned out, this man cut notches equivalent to 60s. on the foil and kept the cash. He evidently was unaware of the procedure, for when compared with the stock the fraud was immediately discovered, and he was sentenced to prison for a year and day.

Finally, we may mention the "proffer" system, as practised in the twelfth century at the Exchequer, as setting an example, and popularising the use of the tally in connection with both public and private transactions throughout the country.

Not only are we indebted to Bishop Fitznigel for information on the mysteries of Government tally-cutting but for an account of how affairs were managed at the Exchequer, of its division into Upper and Lower Departments, and the responsibilities of the officials.

The way in which the proffer system operated is an illustration of how much can sometimes be accomplished with comparatively simple means. In essence it was a system through which the King's taxes could be collected from the counties without all the paraphernalia of forms, returns and demands to which we, in the twentieth century, have become conditioned. The intermediary between the monarch and his subjects in the matter of feudal dues was, of course, the sheriff. Usually a person of importance in his own part of the country, and charged with heavy responsibilities, he was not necessarily, in fact he was but rarely, a skilled accountant. But upon him devolved the duty of collecting for the King the rents of the Crown lands, import and export taxes, tributes from the towns, fines and penalties, and a whole miscellany of other revenue.

It was the custom for the sheriff to journey to Westminster each year at Easter and pay into the Lower Exchequer, or Exchequer of Receipt, approximately one-half of the total amount for which his region was liable. The Treasurer, having accepted the sheriff's proffer, or payment on account, issued instructions for a tally to be cut, one half being given to the sheriff as his receipt, the other finding its way into the Exchequer archives.

Later in the year, at Michaelmas, came the final reckoning. Once again the sheriff made his way to Westminster to render a full account of his stewardship, and to pay over the balance of the "ferms" and other county dues. The proceedings were presided over by the Justiciar, and took place in the Upper Exchequer, or Exchequer of Account. The "chequer cloth" was laid out on a table, and the sheriff submitted himself to audit.

An official known as the Calculator produced a set of counters

which he set up on the squares, like draughtsmen, in such a way as to exhibit the total amount due from the sheriff to the king. When this operation had been completed, and agreed by both parties, the Calculator laid out another row of counters, which recorded the sum which the sheriff had paid on account at the Easter session. This would be checked by reference to the tally which he had received. The two halves would be fitted together, after which the *Ludus Scaccorum* or Counter Game, continued until a balance had been struck.

A fuller account of these audit proceedings cannot be given, as it would constitute at least a minor digression. Enough has probably been said to prove the main point—to demonstrate how important the tally was, how large a part it played at the Exchequer and in the system of royal accounting. Its role was indeed an essential one.

A certain emphasis has been laid upon the fact that the tally was primarily a form of receipt, and that it remained, in essence, a receipt until the time eventually came, early in the nineteenth century, for it to be abolished. But the Plantagenet kings, running a State apparatus with revenues that seemed always inadequate, found that this very convenient accessory, the tally, had possibilities in other directions. Not only was it a means of acknowledging payments, but with a little ingenuity it could be made to meet present financial difficulties by drawing on the future. This employment of the tally as a means of anticipating revenue was a most significant development, and must now briefly engage our attention.

It was, no doubt, discovered at quite an early stage that a debt could be assigned. If, for example, the King borrowed £100 from a moneylender and was owed £100 by one of his barons, he could instruct the latter to pay the former, and thus discharge his liability. Presently this convenient arrangement was improved upon. Money was raised upon the security of tallies which gave the lender the right to collect certain taxes, or to receive the proceeds of taxes, at a later date.

Sir Hilary Jenkinson, in his second monograph, published in *Archaeologia* in 1925, mentions a specific instance of repayment by assignment. The debtor was Henry II, and the creditor a Flemish moneylender named William Cade. Cade was given the customary form of receipt, a tally, and at the same time invested with an authority to draw upon some specified third party, a royal debtor in the provinces. When the debtor paid, he in turn received a tally, one which had already been "levied" at the Exchequer and entered upon the Receipt Roll (which latter was, in effect, a register of tallies). Subsequently, it is thought, the written authority, or writ, may have

been considered superfluous in transactions of this kind, and full reliance placed upon the tally.

Nothing is fundamentally changed, and yet something in the nature of a metamorphosis has taken place. The tally remains, what it had always been, a receipt, but in addition it takes on some of the characteristics of a negotiable instrument, a bill of exchange, a post-dated cheque payable to bearer. Several hundreds of years later a similar thing happened to the goldsmiths' receipts, which were passed from hand to hand, and evolved into an early type of bank note.

At first, it may be assumed that this system of assignment through the medium of the tallies was resorted to in only a minority of cases, for its dangers, as well as its undoubted advantages, will have been apparent to the king's advisers. But there is reason to believe that eventually assignments became the rule rather than the exception. Revenue, anticipated at first only occasionally, was later drawn upon in advance with unfailing regularity, and the levying of tallies settled into a routine.

The economic consequences we are not concerned with, but from an accounting angle there are several interesting points to be observed. Payment by assignment reduced the amount of money paid into, and out of, the Exchequer, for obviously, with increasing numbers of tallies "in circulation," smaller amounts of metal coinage would be required. At the same time, the book-keeping, by which is meant the recording of the issue of tallies on the Receipt Roll, tended to become so complicated that there is evidence of its having at times failed lamentably to cope with the burdens placed upon it. This is hardly to be wondered at, for there would be difficulty even today in operating an extensive system of settling accounts by assignment only. Most important repercussion of all, however, was the coming into existence, as the volume of Exchequer business mounted, of machinery for discounting.

Whether the facilities existed, or were used on a large scale, during the reign of Henry II, when Fitznigel wrote, is not known, but as we begin to leave medieval times behind, the facts are more easily ascertained, and the picture gains in clarity. The discounting of tallies was undoubtedly an important part of the goldsmiths' business in Restoration days, a fact borne out by Pepys, who has an entry dated June 21, 1665, which reads:

I find our tallies will not be money in less than sixteen months, which is a sad thing for the king to pay all that interest for every penny he spends; and which is strange, the goldsmiths with whom I spoke do declare that they will not be moved to part with money upon the increase of their consideration of ten per cent. which they have.

The goldsmiths' rates, it will be seen, were high, but probably only



commensurate with the risks they ran. Two of the most famous, Vyner and Backwell, it may be mentioned, were virtually put out of business by the Exchequer Stop of 1672, an action which, among other things, involved repudiation of the tallies.

It was during the days of Charles II that a further, and last, development in tally technique occurred. As is well known, the troubles of this monarch were considerable, and he was perpetually in debt. In the year prior to the Stop, he had anticipated a full year's revenue, partly by the issue, in 1667, of "tallies of loan." The tallies of assignment had already been made to serve their turn from 1660 onwards, and were simple orders on customs farmers to remit to third parties. But the loan tallies, ostensibly issued to help build the navy, were mere charges against such taxation as Parliament might, at its leisure, be pleased to sanction. The temptation to overdo them was very great, and in the face of temptation Charles was always more inclined to yield than to resist. Tally cutting, under his direction, was raised to the status of a royal sport—even, it might be said, to an art!

But his reckless utilisation of the wooden marvels as a method of mortgaging the future also discredited them, and sowed the seeds of their eventual decline. Confidence in the royal finances was badly shaken by the events of 1672 and the unsatisfactoriness of the tallies as a security was everywhere being felt. They were quoted at a heavy discount, and apart from all this, were criticised on the grounds of their size, which had shown a decided tendency to increase, and their clumsiness. Even the Government officials grumbled at their inconvenience. The notched sticks, in fact, were already an anachronism. Wood, even the most durable, was on the point of being superseded by scrip.

Pepys, secretary of the Navy Board, the reader may be reminded, has a number of references in his Diary to the tallies, many of them in the nature of complaints. A favourite theme is the dilatoriness of the men responsible for their cutting.

"To the Exchequer," he writes on May 16, 1666, "where the lazy rogues have not yet done my tallies."

In actual fact the "rogues" at that time were most industriously engaged: for it was precisely in the days of the famous diarist that the tallies reached the climacteric of their long career. Both by weight of numbers, and in physical dimension, they surpassed anything that had been known before. A whole branch of the civil service was engaged in dealing with them. There were, indeed, certain Exchequer officials, the Chamberlains and other recipients of salaries and fees, for whom tally cutting constituted not only a hallowed ritual, governed by an immutable code of laws, but a vested interest. These were the men, oblivious to the passing of the years, hostile to any suggestion of

change, who helped to keep the tallies going for at least another hundred years.

So far as the City and the middle-class public was concerned, one may perhaps draw a comparison between the late seventeenth-century tallies and certain bonds and equities of the present day. They were regarded as a speculative form of investment, yielding a not unsatisfactory rate of interest, part of the Government "stocks." The student interested in etymology may speculate upon, and become absorbed in quite interesting research into the derivation of that word "stocks," as current now as it was then. He will be in the best of company in concluding that at least one plausible answer is provided by the tallies, which consisted, as we saw, of a wooden stump, or "stock," and a "foil." "Tally" itself, it may be mentioned in passing, stems either from the Latin *talea*, stick, or the French, *tailler*, to cut, or possibly both.

There we must leave the assignment system, and its variations, employed so recklessly by Charles II and his immediate successors. It is necessary to return, for a moment, to the twelfth and thirteenth centuries, for we have not yet glanced at an important field in which the primitive accounting auxiliary, which provides our subject-matter, was found most useful.

England, in Henry II's time, was still a feudal State, backward economically when compared with other European countries, but the foundations of her future commercial greatness were already being laid. Wool was being exported, and there was a fair amount of internal trading. Business, whether it involved the use of money or was merely conducted on a barter basis, could not be confined entirely to the royal court. The merchants, lords-of-the-manor, and in particular the moneylenders, found themselves obliged to give and to accept receipts. And a receipt, in medieval times, was invariably equated with the tally.

There are, in fact, ample reasons for believing, despite the paucity of concrete evidence, that the private tally, like the Exchequer tally, enjoyed a considerable vogue. It was probably a less elaborate instrument: the abracadabra surrounding it not so formalised, the rules simpler and less rigid, whilst the individual responsible for its issue was free to indulge his own idiosyncrasies in the manner of cutting and inscribing. Since the private tally, like a token coin, would have only a limited currency, this would create no difficulties. But the nearer a person was to the king's court, and the more familiar he was with its customs, the more likely his tallies were to be modelled on those struck by the Exchequer officials.

In actual size and general appearance the private tallies (of which

a hoard was discovered in three leather bags in the Public Record Office some years ago) differed only slightly from the ones in official use. They were notched in similar if not quite the same manner, and split in half to form two equal portions. But whereas the Exchequer tallies were destined to remain accounting records without a break for at least seven successive centuries, the private tallies seem to have enjoyed but an ephemeral existence. As soon as parchment and paper became more freely available as a substitute for wood the private tallies fell out of favour and were discarded. In its functioning the private tally, so far as is known, was confined to the acknowledgment of money or of goods. It remained simply a receipt.

Before leaving this part of the subject, one other point merits brief reference—the employment, by Henry II, of a special kind of Exchequer tally, known as the *dividenda* tally, which had the effect of stimulating the use of private tallies. Its *modus operandi* can be explained quite quickly, for it was nothing more than a device for devolving detail work from Westminster to the counties. Overloaded by the vast number of payments, the Exchequer officials invented this procedure of the *dividenda*, whereby the collection and acknowledgment of trifling sums was thrown upon the local sheriff.

This was a commendably common sense course to take, one which should have worked well in practice. The sheriff, remitting to the Exchequer, was given one tally, the *dividenda* tally, covering the multiplicity of petty receipts. It was left to him to satisfy the individual debtors from whom he had collected. The implication of this is that he issued his own private tallies from his local office, complete with accounting system and clerks. Further, one is entitled to make the assumption that the monarch had by now succeeded in gathering round him a body of reliable men—officials at the Exchequer and tax-collectors in the counties—who were not only literate but had acquired some degree of skill as accountants. The extra duties included the submission by the sheriffs of accurate lists to the centre for audit. Subsidiary Receipt Rolls had also to be kept locally.

The tally *dividenda*, clearing an entire bloc of small remittances, amercements, fines and debts, seems to have been replaced by another, almost identical in the way it functioned, known as the tally *debitus pluriam*, and numbers of the Public Record Office discoveries, alluded to above, were of this latter type, as the inscriptions on them show.

If there is any single event which, looking back, we can see dealt the tallies a blow, not indeed immediately mortal but ultimately so, it is the founding of the Bank of England in 1694, six years after the Whig revolution had placed William of Orange on the throne.

A war against France was in progress. Money was urgently

needed, but there was difficulty in borrowing it, for the public credit was at a low ebb. William Patterson's scheme for the formation of a bank seemed to offer a way out of the crisis. The sum of £1,200,000 was loaned to the Government, and the Old Lady of Threadneedle Street received acknowledgment in the usual form—tallies. But no ordinary tallies! These tallies, which remain in existence today, owing to the fact that they have never been redeemed—unless the act of nationalisation may be said to have done so—set up a record no less for their amounts than for their outsize proportions. Where the early tallies described by Bishop Fitznigel were mere hazel wands eight inches in length, these were solid trunks, the longest exceeding *eight feet!*

This, however, is in parenthesis. Of more importance here are the dealings in tallies which took place in 1696, dealings in which the Bank of England was deeply involved. The war was continuing to act as a drain on the Exchequer, and the Government's financial standing was no higher. Large numbers of tallies-of-loan were in private hands, and there were no funds from which to pay them as they fell due. The consequence was that they were quoted at a heavy discount, as much as 40 per cent. on occasions, and the Government felt obliged to do something about them if public confidence was to be restored.

Fairly full details of what actually happened are to be found in several of the authorities (for example, in Sir John Clapham's *History of the Bank of England*), but the crux of the matter was that the Bank "ingrafted" the tallies, that is to say, took them over from the holders in exchange for Bank stock. The directors were by no means enthusiastic about the scheme, as they considered it would not enhance the Bank's credit. Since the tallies were often forward-dated to such an extent as to be practically non-negotiable anywhere else, and as the security, usually consisting of a charge against a specific tax or duty, had not infrequently been cancelled by Act of Parliament, the reluctance of the court of the Bank to take over the tallies was natural. However, the much-abused chirographs, when the "ingrafting" had for patriotic reasons been accepted, carried interest at 8 per cent., and the principal sum being considerable, the Bank did very well out of the bargain!

The tally as a means of raising public loans was, nevertheless, passing into desuetude. Other and simpler means of anticipating revenue were thought out, one very effective method being the Exchequer "bill." Funds could be raised on alternative, and more acceptable, securities, and in the eighteenth century the gradual withering away of the tallies as accounting and financial instruments was an observable process. Towards the end of that astonishing

century, in 1782, an Act of Parliament was in fact introduced for their abolition. But it was not to become effective until the decease of the last of the Exchequer Chamberlains, and as this historic event did not take place until 1826, the tallies continued to be used well into the nineteenth century.

What people had by then come to think of them is magnificently expressed in a famous Dickens diatribe (taken from his *Letters and Speeches*, volume 2) which it would be cheating the reader not to quote. The passage is as under:

Agès ago a savage mode of keeping accounts on notched sticks was introduced into the Court of Exchequer, and the accounts were kept, much as Robinson Crusoe kept his calendar on the desert island. . . . A multitude of accountants, book-keepers, and actuaries were born, and died. Still official routine inclined to these notched sticks, as if they were pillars of the constitution, and still the Exchequer accounts continued to be kept on certain splints of elm-wood called tallies. In the reign of George III an enquiry was made by some revolutionary spirit whether pens, ink and paper, slates and pencils, being in existence, this obstinate adherence to an obsolete custom ought to be continued, and whether a change ought not to be effected.

All the red tape in the country grew redder at the bare mention of this bold and original conception, and it took till 1826 to get these sticks abolished.

But then, at long last, the tallies were returned to Westminster in such volume that the old Star Chamber had to be cleared to accommodate them, and, when this was packed to the ceiling, much other valuable space was taken up. They ceased to have any validity, and their place at the Exchequer was taken by indented cheque receipts.

Had this great accumulation of ancient tallies come down to us, it would undoubtedly have been a mine from which infinitely interesting matter might have been hewed for antiquarians and economic historians, as well as for accountants. Unfortunately, a statute of William IV ordered a holocaust. The tallies were condemned to be destroyed. Consequently, in 1834, they were thrown into the heating stoves of the House of Commons, with results that could scarcely have been foreseen. So excessive was the zeal of the stokers that the historic Parliament buildings were set on fire and razed to the ground!

The tallies perished in a blaze of defiant glory, leaving, as far as was then known, not a wrack behind. And but for the accidental discovery of various hoards, including an important one in the Chapel of the Pyx at Westminster, early in the present century, our knowledge of them, imperfect and incomplete as it still is, would have been even less.

Existing only as isolated specimens here and there, or as enigmatic fragments, the tallies would have been little more than curiosities; things noted down in the pages of old books, and left to be puzzled over by the *littérateurs* and the investigators of a future age.