

THE WESTERN ENTRANCE OF THE TOWER

BY JOHN H. HARVEY

INTEREST has been centred on the old Lion Gate of the Tower of London by the discovery (early in 1936) of two of the draw-bridge pits and a large part of the 13th century causeway and barbican. The Lion Gate was so named from the fact that for many centuries the Royal Menagerie was housed next to it, in the semi-circular Barbican, but when the King's beasts were first sent to the Tower, the Barbican was not in existence, so that the original "house" for the animals must have been elsewhere.

This was in 1252, when on the 14th September, King Henry III sent a letter¹ to the Constable of the Tower ordering him to admit a certain white bear, sent as a present from Norway, and to find a house capable of guarding it, while the Sheriff of London was to find its food and requirements at the rate of 4d. a day. In the next year the Sheriffs were ordered "to provide a muzzle for the said bear, and an iron chain to hold him out of the water, and likewise a long and stout cord to hold him when fishing in the River Thames."²

Two years later, Louis IX of France presented Henry III with an elephant, and the Sheriffs were to provide £22 1s. 8d. for building a house for him in the Tower, 40 feet long by 20 feet wide,³ a sum perhaps worth £700 or £800 nowadays; evidently no risks were taken of his breaking loose. Matthew Paris, the historian, who was granted special facilities by the King for chronicling contemporary events, made three drawings of this elephant, of which the finest, showing its Keeper beside it, is in a manuscript belonging to Corpus Christi College, Cambridge; this was reproduced in colour in Sir T. D. Hardy's *Catalogue of Materials for British History*.

At this time much building work was going on at the Tower, but it was not until after the arrival of Edward I in England in August, 1274, that the new western defences were pushed on. The first mention of these outworks in the building accounts seems to be in a roll of 1278-79,⁴ which mentions:—

"To great timber bought for the tower (*turrell*) between the outer gate which is guarded by *John le Picard* and the Mill towards the City and for . . . timber bought for the two little turrets and for partitions in the same £32 5s. 4½d.

"To timber bought for the gate of the said tower, with two leaves and one wicket (*guigetta*) £2 2s. 10d.

"To 111 planks bought for flooring (*planchiand*) the said tower and two small turrets in the same £4 11s. 6d.

"To timber bought for two swinging gates (*portas turnicias*) on each side of the Barbican £9 11s. 2d.

"To 36 planks bought for the same £1 16s. od."

The tower with two small turrets must be the Middle Tower, and the "swinging gates" were those for the two pits recently discovered. From this it is clear that the masonry of the tower and pits was already finished by Easter of 1279, when the account closes.

At this time the "Masters and Surveyors" of the works were Master Robert de Beverley and Brother John of Acre, while the Controller was Giles de Audenard, or "de Garderoba." Master Robert was at the Palace of Westminster in 1259 as assistant to John of Gloucester, the King's Master Mason, whom he seems to have succeeded in office in 1261, when Master John was dead. He worked at Windsor Castle, again at the Palace, and at Westminster Abbey, where he was Chief Keeper of Henry III's new works. On November 7th, 1271, he was granted a patent as "viewer" or Surveyor "of all the works of the Tower of London, and of the Castles of Windesore, Rochester and Haddeleye, as also of the Manors of Guildeford, Kenynton and Havering, during pleasure, with power to remove other viewers found to be unfit and substitute others in their place."⁵ He is here described as the King's Principal *Carpenter*, not mason; this may have been an error of the scribe, but an entry in the Tower accounts⁶ suggests that he may have worked in timber as well as in stone: "To Solomon the joiner for two panels of fir . . . with trestles and other fittings, and with patterns for Master Robert of Beverley for timber" (*Salamoni le longmur pro ij tabulis de sapino ad opus domini Regis cum Trestellis et alio Gernes' xiijs. iiij. & cum formis magistro Roberto de Beuerlaco pro maeremio*). Though somewhat obscure, this rather suggests materials for a "drawing office"; the "patterns for timber" were probably planed boards, on which Master Robert could draw or cut full-size templates for carpentry work. In a later roll of 1281-84⁷ is an entry "to Stephen Ioignour for divers panels (*Tabul'*) for "moulds" for the masons' work, 13s"; these moulds may have been carved models of details in some cases, but the fact that they were made with panels supplied by a joiner is far more suggestive of their use as boards for drawing, probably to full size, and directly on the

wood. After use, the drawing could be scrubbed off, and the board used again.

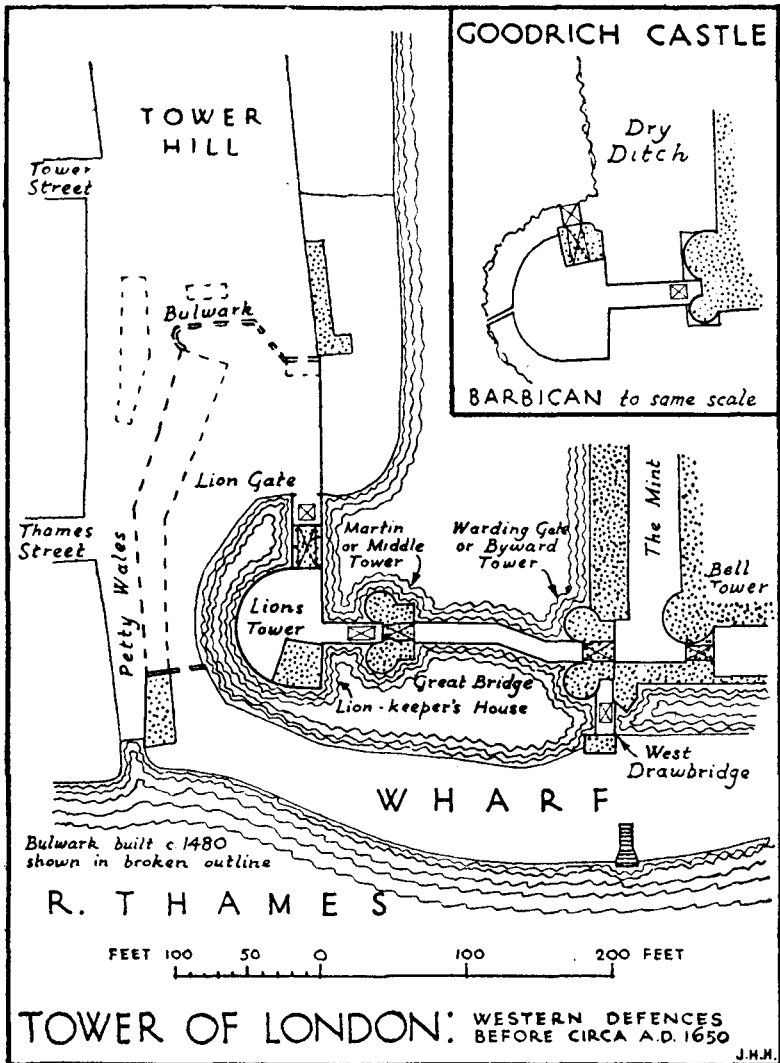
Mr. F. B. Andrews, in *The Mediaeval Builder* (1925), devotes a section to the use of sketches, working drawings and models in the Middle Ages, where he quotes a number of very similar passages from various building accounts. The earliest given is from the Ely Sacrist Rolls of 1322-23, almost fifty years later than the first instance at the Tower,^{7a} but there is a case of 1330 where Master Thomas the mason working on St. Stephen's Chapel at Westminster was paid for "working at tracing upon the moulds" (*intrasura super moldas operanti*); this confirms the suggestion that moulds were drawings or templates rather than models. In 1275 our Master Robert was named as "Keeper of the King's works," and was to have 12d. per day when at work in the City of London, and 16d. when journeying without the City.⁸ He continued to take his salary of 12d. a day up to 24th June, 1284⁹; after this his name disappears, so he must then have died, or retired from active work.

There can be little doubt that the credit for the design of Edward I's works at the Tower must go to Robert of Beverley, though the plan of the Barbican with its spur-moat may have been suggested by the King himself, who was well acquainted with French military architecture, and had previously had new "bastide" towns built in his Duchy of Aquitaine. It is certainly interesting that at Goodrich Castle, Herefordshire, is a Barbican of similar plan and almost exactly equal size. This is dated by the Royal Commission on Historic Monuments as "c. 1300"; since the Close Rolls record three gifts of timber by Edward I to his uncle, William de Valence, "for the repair of his castle of Godriche" in 1280, 1282 and 1293,¹⁰ it may well be that the Barbican was built before William's death in 1296; in the early part of Edward's reign he had been Seneschal of the Agenais, and built the bastide Valence d'Agen, and the castle of Limousin.

Returning to the works at the Tower, Master Robert's colleague, Brother John of Acre, and the Controller Giles de Audenard or "de Garderoba," were two of the Royal clerics who usually filled such non-technical posts in the mediaeval office of works; a century later, such posts were filled by William of Wykeham and Geoffrey Chaucer, to quote two famous names.

While the outworks were under construction, work was also

proceeding on the main ditch of the Tower; previously this had been tidal, so that when the Thames was low the ditch was empty. Matthew Paris relates¹¹ that in 1190 Bishop William



of Ely attempted to cause the water of the Thames to flow into the city in his ditch, which was very deep, but found after great expense that he had laboured in vain. It may be this work that is referred to in the Pipe Roll of 1193,¹² where

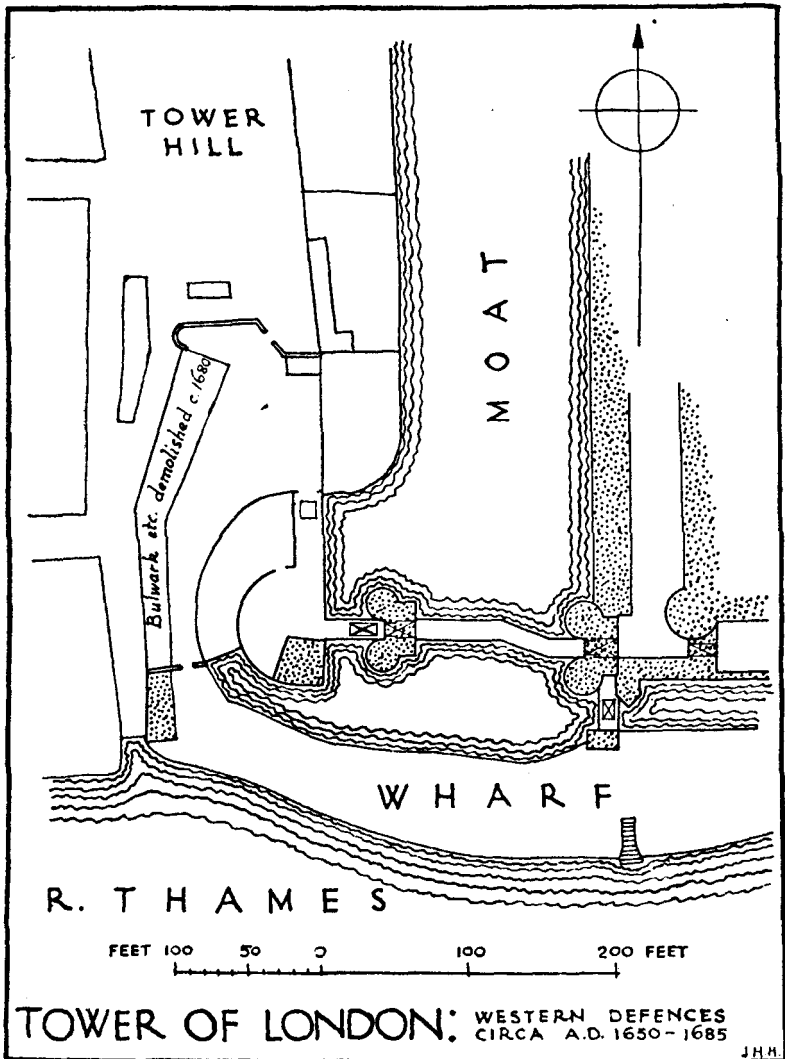
£67 2s. 6d. was allowed "for the works and repairs of the Tower in its palisades and mangonels, and in mending the ditches . . . by view of Peter f. Neuelun' and Alexander f. Sperling."

Edward I, determined to make his new defences successful, brought over a Flemish expert to make the necessary sluices and level an entrance channel. He is referred to in the accounts¹³ as "Master Walter le Fleming" or "de Flanders," coming from Flanders at the bidding of the lord King, and was given £9 for the return journey and for his expenses and fees while living in London, a total of nine weeks; the whole sum was probably equal to nearly £300 now. In 1283 the spur ditch around the Barbican seems to have been made, for workmen were paid for "making a ditch near the mill towards the city" and for "making a certain wall of stone under the mill towards the city for keeping the water in the ditch." At the same time 100 dozen nails with square heads were bought from Master Henry de Piscar', smith, "for the gate between the Barbican and the mill towards the city" at a cost of 9s. 4½d.¹⁴

In 1288 the King sent a lion and an ounce from Gascony to the Tower, and 10d. a day was allowed for their keep from the 16th of May onwards, as well as 3d. a day each to James d'Arragon and his three boys, their keepers.¹⁵ Between Michaelmas, 1285, and Easter, 1287, the "house where the white bear lodges" was mended and refitted at a cost of 9s. 4d., and the bridges of the Tower were repaired.¹⁶ In 1288, 1s. 4½d. was spent on the "house of the elephant and the white bear."¹⁷ In 1291 and 1292 extensive works were carried on in enlarging the Tower ditch,¹⁸ but by this time the main outline of the Tower had taken shape; the period of construction was over, and gave place to more or less continuous maintenance work.

In 1334 the bridges of the Tower seem to have been in a bad state; for the "great" bridge, between the Byward and Middle towers, was repaired, and also the "bridge of the postern of the Tower next the Mint," which was on the site of the West Drawbridge to the Wharf.¹⁹ On Wednesday, 30th August, Richard de Yetyng of "Cornhill" was paid 4s. for four oak boards, each 15 feet long, at 12d. each "for mending the outer bridge towards London against the coming of the lord King" (Edward III). 1½d. was paid for portage and carriage of the boards from Cornhill to the Tower, 100 great nails were bought from Robert of St. Albans "for fixing the said board and other old board on the said bridge," for 12d., and Adam of London,

carpenter, was paid 5d. for working for the said Wednesday "on fixing the boards of the said bridge and also fixing and mending the boards on the other lower bridge"; these two



bridges can be identified with those over the two pits recently excavated. On the 17th October of the same year, Walter de Bury, the King's smith, was paid 16d. for two locks with keys and nails for two gates (*host'*) in the outer tower (*turrell'*)

towards London, and 10d. for another lock with key and nails, for the door (*porta*) towards the lions and leopards.

Notwithstanding repairs, the bridge by the Middle Tower soon needed complete renewal; a detailed account exists for this work, which went on from the 3rd June to the 15th July, 1336. This work seems to have been carried out as a result of an enquiry into the state of the Tower, made in 1335 and printed in Bayley's *History* of 1821; four bridges were said to require repairs to the amount of £50, and the leadwork of "two turrets at the outer gate" needed £13 6s. 8d. worth of plumber's work. The following extracts from the accounts may be of interest, as they show just what materials and labour went to the making of such a bridge.

"Monday 3rd June: to Thomas le Hayward for three pieces of timber bought for making anew and repairing the swinging bridge (*pontem turniceum*) under the outer tower towards London, each in length 28 feet, in breadth $1\frac{1}{2}$ feet square, bought for beams (*virg'*) for the said bridge, price each 4s., 12s.; and to the same for a piece of timber bought for the outside (*pro extr'*) at the said bridge, in length 14 feet and in size $1\frac{1}{2}$ feet square 3s.; in carriage and cartage of the said timber from 'Westsmethfeld' to the Tower with 4 carts, each taking 3d., 12d."

"The same Monday: to Adam of London, carpenter, working on the said outer bridge towards London and taking apart (*disiungent'*) the old bridge and working on the new one for the said days Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, viz.: for 6 days, taking per day 6d.—3s."

"To Richard of Manwode, Peter of Exenyng and Richard Bate, three carpenters working on taking apart the said old bridge and making the new one for the said 6 days, each one taking 5d. per day—7s. 6d."

"To Thomas of Melton and John le Shahier, two sawyers, sawing the said timber for beams (*pro virg'*) for the days Wednesday and Thursday, viz.: 2 days at 5d. each per day—20d."

"Tuesday 11th June: to Hugh le Hatter for 5 pieces of oak timber bought for rails and fillets (*reylis et filett'*) for the making of the aforesaid new bridge, each in length on the average (*una per medium alterius*) 18 feet, price per piece $14\frac{1}{2}$ d., less $\frac{1}{2}$ d. altogether—6s."

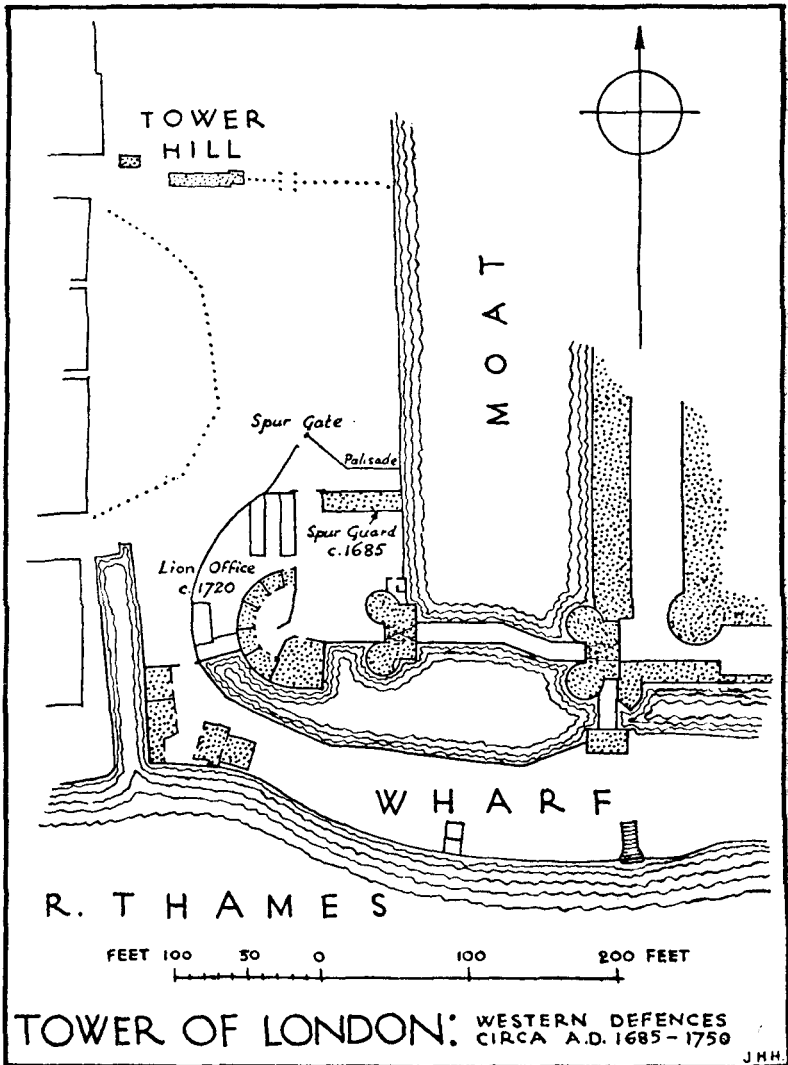
"To cartage and carriage of the said timber from 'Suthwerk' to the Tower—4d."

"The same Tuesday, to Adam of London, carpenter, working on the said bridge under the outer tower towards London for the said Tuesday, Wednesday, Thursday, Friday and Saturday, viz.: for 5 days taking per day 6d.—2s. 6d. and he received nothing for Monday on the feast of St. Barnabas the Apostle."

"To Richard Bate and Richard atte Brigg, two carpenters, working on the said bridge for the said 5 days, each per day 5d.—4s. 2d."

"To Thomas of Melton, William Hardyng, William Kene, and Salamon le Saghier, four sawyers sawing and working new and old timber for Wednesday and Thursday, viz.: for 2 days at 5d. each per day—3s. 4d."

"To William of Corfe, mason (*Cementar*'), working on Elisford stone (i.e. of Aylesford; Kentish hardstone) for the repairs of the said bridge for Friday and Saturday, viz.: for $1\frac{1}{2}$ days, taking for a day 5d. and for half a day $2\frac{1}{2}$ d.— $7\frac{1}{2}$ d."



"Monday 17th June: to Adam of London, carpenter, working on the fore-said bridge for Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, viz.: for 6 working days, because he worked on the days of St. Edward and St. Alban, taking per day 6d.—3s."

"To Richard Bate and Richard atte Brigge, two carpenters working on the said bridge for the said 6 days each at 5d. a day—5s."

"To William of Corfe, mason, working on the stone for carrying the said bridge for the foresaid 6 days, taking 5d. per day—2s. 6d."

"To Thomas of Melton and Henry atte Lofte, two sawyers, sawing timber on Friday for the said bridge, each at 5d. per day—10d."

"Tuesday 25th June: to Hugh le Hatter for 15 boards of oak bought for the swinging bridge under the outer tower towards London, made anew, each in length 15 feet, in breadth about 2 feet, in thickness 3 inches, price per board 14d.—17s. 6d."

"In cartage and carriage of the said boards from 'Suthwerk' to the Tower with 3 carts—6d."

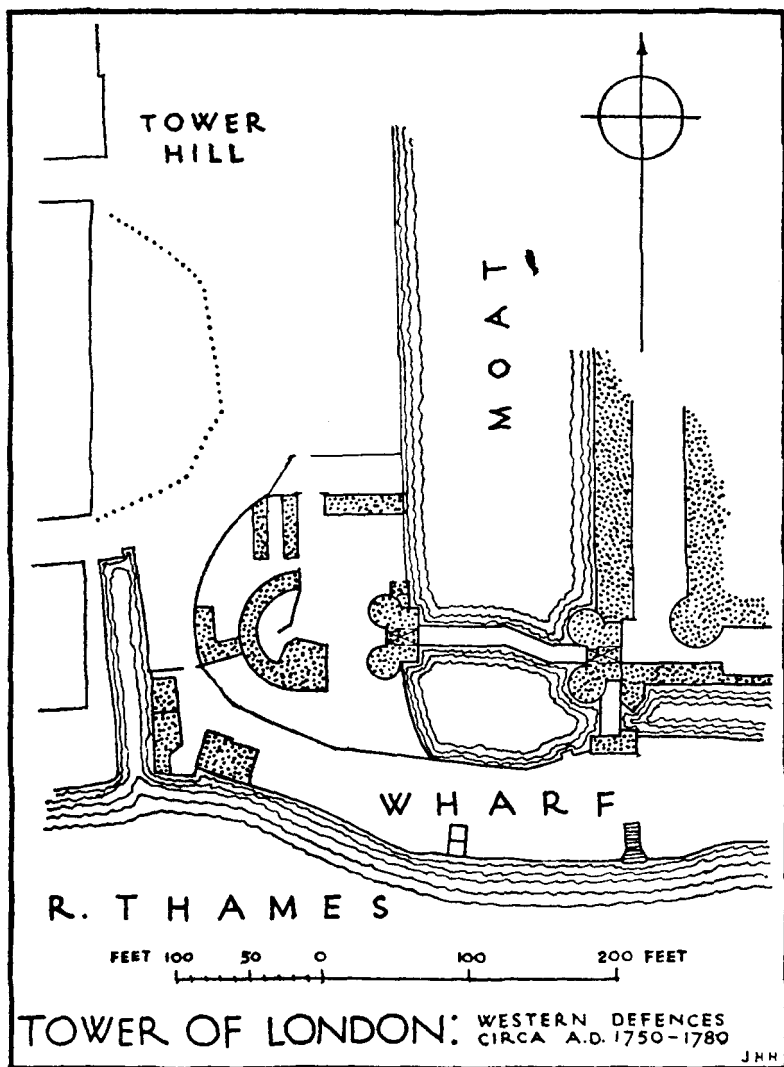
"The same Tuesday: to Adam of London, carpenter, working on the said new bridge for Tuesday, Wednesday, Thursday and Friday, viz.: for 4 working days, and for Monday on the feast of St. John the Baptist, viz.: 5 days, taking per day 6d.—2s. 6d., and he took nothing for Saturday on the feast of the Apostles Peter and Paul."

No further materials were purchased for the bridge, but it was not completed until the 15th July; for the week beginning Monday, 1st July, Adam of London took 3s. and Richard at Brugge and John Fulk, his assistants, with William of Corfe, mason, 2s. 6d. each; for the next week the three carpenters received the same, but the mason no longer appears; on the 15th July, John Fulk only was at work, and took 5d. The total cost of the bridge was £2 os. 4d. spent on materials and carriage, and £2 15s. 6½d. on labour; the grand total of £4 15s. 10½d. probably equalled £120 to £150 to-day, though a similar bridge built of oak would now cost far more, owing to the disproportionate scarcity of timber.²⁰

On December 14th, 1339, the old lead "coming from the Tower above the outer gate towards London," and elsewhere in the Tower, was delivered to Richard de Cant' and Thomas atte Diche, plumbers, of London, to be melted and cast and laid anew on the said tower, etc.²¹ The same account shows that a key price 2d. was bought for the Bar (*barr*) outside the Tower towards "pety Wales"; this was the old main entrance to the wharf. Twenty years later, in 1358-59, the "house of the lions" was mended with 65 great nails weighing 22½ lbs. bought at 2d. per pound, a total of 3s. 9d.²² In 1365-66 Richard Wylton, carpenter, was paid £3 6s. 8d. for making new gates at the entrance of the Tower, and a partition in the lion's house, by task work.²³

A few additional details concerning the menagerie may be inserted here. We find in the Calendar of Patent Rolls that

on the 16th October, 1341, a patent was issued for the "Appointment of Robert son of John le Bowyere of Doncastre to the custody of the King's lions and leopards at the Tower of



London during pleasure, with such allowance for his wages and the sustenance of the lions and leopards as Berengar Darragon (note James of Aragon above, who may have been Berengar's

father) who lately held the custody, had." This grant was cancelled and re-issued in different terms: "the custody of the King's one lion, one lioness, one leopard, and two whelps of the lioness at the Tower of London, during pleasure"—he was to have 6d. daily for himself, for each lion, lioness or leopard 6d. and each whelp 4d. The office was granted to John Styrop in 1349, after the death of Robert de Doncastre, perhaps of the Black Death; twenty years later Styrop also died, and the office was granted for life to William de la Garderobe, who was already yeoman of the King's armour in the Tower, and who died 1381. Later holders were John of Evesham, 1381; Nicholas de Wenlyng, 1399; John Wolde, 1404; John de Ritz, 14 ?; William Kerby, 1413; Robert Mansfield, 1436; in this last case the special stipulation was made that he should not draw the fees or profits, except the houses for the keeper and lions, unless there were actually lions in the Tower, as had been the case in the past (Calendars of Patent Rolls, *passim*). It would be easy to make a complete list of the keepers by searching the Calendars of Patent Rolls and other State Papers.

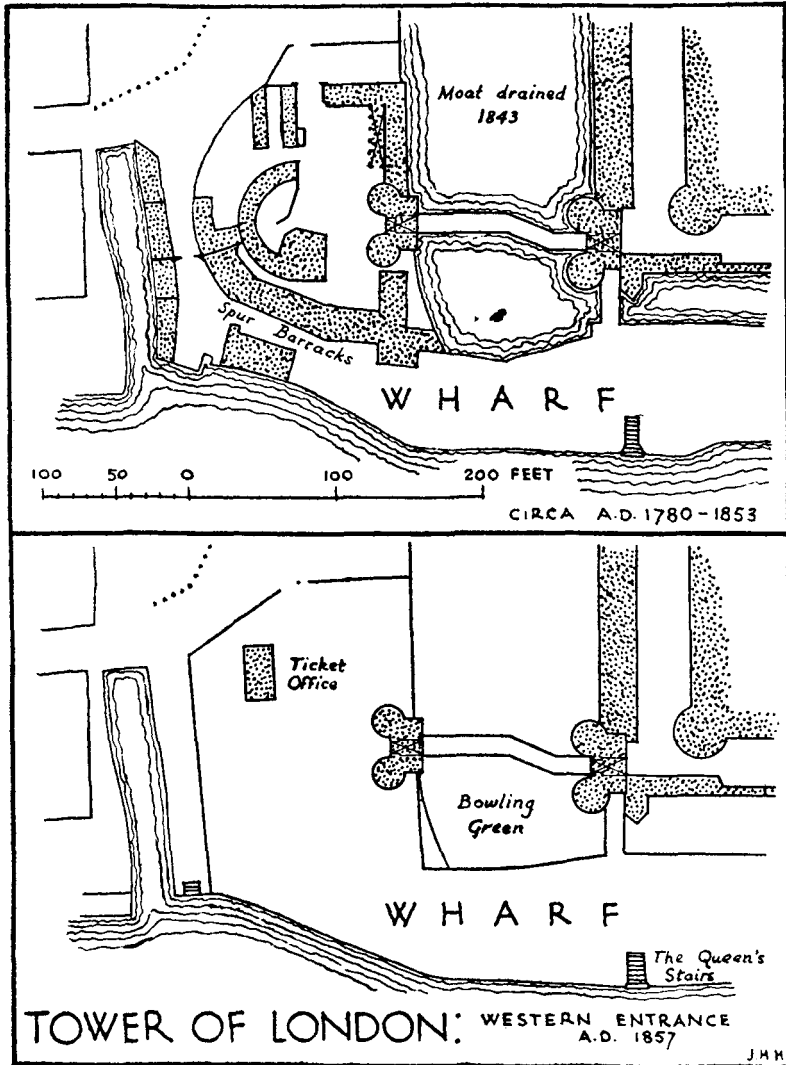
Notes and Queries (Vol. 150, 1926, p. 255) printed some interesting extracts from a German travel diary; in 1710 Zacharias Conrad von Uffenbach visited the Tower, and made the following notes on the menagerie:—

"Then they took us into an old building where wild animals are shown. There were only the following, four lions with which a dog was shut up, and the lions are so accustomed to him that they do him no harm; he lies quite quietly with them, which is surprising, but I believe that if they kept the lions long without food they would take him. The lions were only middle sized. There was also a tiger, and two wolves, which as is well known are rare in England. Also two Indian cats, very powerful and vicious, not unlike ours. There are also two eagles, one of which as the custodian told us is 40 years old."

According to the "Foreigners' Guide through London and Westminster" of 1730, the fee to see the beasts was then 3d.; later in the century it was 6d., and from 1750 onwards a number of short guides to the Tower were printed, with descriptions of the individual beasts kept there.

Few detailed building accounts have survived for the 15th century, but there can have been little alteration, except for the addition by Edward IV of the so-called Bulwark wall of brick some distance to the North of the Lion Gate, so that the latter lost its position as the outermost defensive work of the Tower.²⁴ After the construction of this bulwark, the office of

“Keeper of ‘le bulwark’ ” was created. The first holder seems to have been Thomas Redhede, who was appointed on 9 March, 1484, “porter of the Tower of London and keeper of ‘le bulwark’ ”



without the west gate of the same and 6d. daily for his wages . . . and a mansion within the bulwark aforesaid."^{24a} Next year after Bosworth Field, the office was granted “to Robert Jay, for his services beyond seas and at the triumphant battle”

(Bosworth); in this case, "the houses on Tower Wharf and the gardens on Tower Hill" were also within his custody.^{24b}

It is probable that the drawbridges were repaired or renewed on several occasions, but it is not until the reign of Henry VII that further direct evidence comes to light. An account-book of Thomas Warley, the Royal Clerk of the Works, for 1500–1502, now in the British Museum,²⁵ shows that one of the drawbridges was then renewed; unfortunately, details of the expenses are not given, but timber and "bryk," with lime for mortar, were purchased, and wages were paid to setters (*positor*) and carpenters; the chief setter (? bricklayer) was William Kylby, at 7d. a day, and the chief carpenter John Gerves at 8d.; the assistant setters and carpenters all received 6d. The entry under "Bryk" reads "and for strengthening or propping (*submuniendo vel fulcrendo*) a certain bridge newly made in the Outer Ward next the Tower where the lions are kept." The remains of the outer drawbridge-pit recently found contain a repair in soft dark red bricks, about $8\frac{1}{2}'' \times 4'' \times 1\frac{1}{8}''$ in size; three courses rise $6\frac{3}{4}''$. It is not improbable that these are a vestige of the work done in 1500–1502.

An estimate of cost for necessary repairs at the Tower was made during the reign of Henry VIII; according to Bayley, who prints it in full as an appendix to his *History of the Tower*, it dates from 1531–32.²⁶ Every part of the buildings is detailed, and the cost of necessary repairs given under headings of materials and crafts. "St. Marten Tower" (the Middle Tower) was to be mended at the water with "Cane" (Caen) stone; "the wall from St. Marten Tower unto the new bulwark of bryck unto Tower hyll Warde in lengthe 100 foote to be copyd garytted and crestyd and also roughcast. Cane stone, 40 tons—£10. Lyme—10 cwt.—50s.; Sande, 30 loads—15s. To the Masons £26 10d. od. To the Roughcasters £8 6s. 8d. Two brydges to be new made comyng unto the Tower under Seynt Marten Tower with Tymber made by the carpenters. Tymber 20 loods—£6 13s. 4d. To the carpenters £6 13s. 4d. The Lyon towre to be roughcast with Lyme—lyme to the same—6 cwt. 30s. Sande to the same, 18 loods—9s. To the Roughcasters—£5."

It is not certain to what extent these works were carried out. Apart from the repairs estimated for, there is a list of "other needful repairs," including "St. Marten & Lyon Towers to have new roofs and floors." Among works which were actually

carried out in 1532-33 was the "makyng of a frame for a bell in the White Tower the whiche callith workemen to worke and fro worke."^{26a} In 1533 some work was done at the entrance by Gabriel Calden (or Coldam) Warden of the masons, who took 8d. a day. The work included "The Turnyng of an arche, for the enlarging of the corner of the Brydge by the lyon Towere," and "the hewing and new setting of 70 foott of Crestes and Coynes upon the same, and moreover in the new setting of 46 foote of olde Creste upon the same brydge."^{26b} At the end of 1536 the gates of the "Northwest Bulwerke" were repaired "with new heddyng."^{26c}

In 1597 William Hayward and J. Gascoyne made a survey of the Tower and its Liberty,²⁷ which shows the whole drawn out in bird's-eye view; the moat round the Barbican, or "Lyons' Tower," was still full of water, and at the south-east corner of this tower was the house for the keeper of the lions. A number of small houses ran northward along the edge of the ditch, beyond the outermost Bulwark Gate. During the 17th century the defences of the Tower gradually became of less importance, for the moat had lost much of its military value. By about 1660²⁸ part of the moat around the Lion Tower had been filled in, and was probably used as an exercise ground for the beasts; extra cages and buildings connected with the Menagerie were later built on this site, between 1702 and 1725.²⁹

By about 1690 the Bulwark Gate had disappeared, and its place was taken by the Spur Guard, built to the east of the Lion Gate archway, on ground reclaimed from the moat.³⁰ A warrant for expending £650 os. 6¾d. on the Lions' House was granted on 31st October, 1678,³¹ and though the detailed accounts seem to be missing, it is possible that so large a sum included part of these alterations. In 1733, Mr. Martyn, then Keeper of the Lions in the Tower, petitioned the Treasury "to have his house enlarged by some addition to the height thereof"; on 20th April, 1734, a warrant was issued to the Board of Works to execute these repairs, to cost £350.³² One of Buck's prints of 1737 shows this alteration when compared with earlier views from the Thames.³³ At a date probably between 1777 and 1789 a new Guard house with an open loggia to the west was built, running from the Spur Guard southwards to the Middle Tower, and the remainder of the old spur moat around the Lions' Tower was filled in.³⁴ Shortly before 1800 the Spur Barracks was built upon this reclaimed land, and a tinted

scale drawing showing the Middle Tower and adjoining buildings at this period is still in existence.³⁵

But the history of the Tower as a fortress and as a menagerie was coming to an end; in 1831 the King's beasts were moved to the Zoological Gardens in Regent's Park,³⁶ and in 1843 the main moat was filled³⁷; in the same year a plan of buildings scheduled for removal was prepared, showing that all the old works outside the Middle Tower were to be swept away³⁸; in 1845 a scheme for new guard houses to north and south of the Middle Tower was prepared,³⁹ but apparently they were never built; demolition of the old works went on during 1853, and by 1857 all had disappeared and the Ticket Office was built.⁴⁰ For eighty years the old Lions' Tower and Gate remained buried and forgotten so completely that their rediscovery in 1935-36 caused general surprise, especially in view of the wonderful state of preservation of the drawbridge pits and causeway, which appear almost new, though six-and-a-half centuries have gone by since their construction by Edward I.

NOTES.

1. *Calendar of Close Rolls*, 1252, p. 157.
2. *Liberate Roll*, 37 Henry III, m. 15, quoted in J. Bayley: *History of the Tower*, 1821, Vol. I, p. 269.
3. *Lib. Roll and Close Roll*, 39 Hen. III, quoted as above.
4. *Compotus*, Easter 1278, to Easter 1279; P.R.O. E. 101/467/7 (4).
5. *Cal. Patent Rolls*, 1271, Nov. 7, and for Robert of Beverley see W. R. Lethaby: *Westminster Abbey*, 1906, and *Westminster Abbey Re-examined*, 1925, pp. 58, 95, 197.
6. *Roll of purchases*, 1274; E. 101/467/6 (6).
7. *Particulars of account*, 1281/84; E. 101/467/9.
- 7a. But in 1175 William of Sens "delivered molds (*formas*) for the shaping of the stones to the sculptors assembled" at Canterbury Cathedral (*Chronicle of Gervase*.)
8. *Cal. Close Rolls*, 1275, Nov. 25.
9. *Compotus*, 1281-84; E. 101/467/10.
10. *Cal. Close Rolls*, July 8, 1280; Nov. 12, 1282; June 4, 1293.
11. *Rolls Ed.*, Vol. II, p. 369.
12. *Pipe Roll Soc.*, Michaelmas, 1193, p. 131.
13. *Compotus & Particulars*, 1278-79; E. 101/467/7, (4) and (6).
14. *Compotus*, 1281-84; E. 101/467/10 and *Partics.*, E. 101/467/9.
15. *Account of the Constable*, 1284-1306; E. 101/4/10.
16. *Compotus*, 1285-87; E. 101/467/13.
17. *Compotus*, 1287-88; E. 101/467/15.
18. *Pay-sheets*, 1291-92; E. 101/468/5 and 12.
19. *Partics. of Account*, 1334-35; E. 101/469/18.
20. *Roll*, 1336-38; E. 101/470/1. For a further discussion of this account see J. H. Harvey in *R.I.B.A. Jnl.*, 13 June, 1938, pp. 736-37.
21. *Partics. of Account*, 1339-40; E. 101/470/9.
22. *Account*, 1358-59; E. 101/472/6.
23. *Account*, 1365-66; E. 101/472/17.
24. John Stow, *Survey of London*.
- 24a. *Cal. Patent Rolls*, 9 March, 1484.
- 24b. *Ibid.*, 21 Sep., 1485.
25. *Account Book*, 1500-02; B.M., *Egerton MS.*, 2,358.

26. Estimate; E. 101/474/18, printed in full in J. Bayley: *History of the Tower*, 1821, Vol. I.
- 26a. Account; E. 101/474/13.
- 26b. Bodleian, *Rawlinson MS.*, D. 775; and for Gabriel Coldam see D. Knoop and G. P. Jones, "The Sixteenth Century Mason," from *Ars Quatuor Coronatorum*, 1937.
- 26c. Bodl., *Rawlinson MS.*, D. 780; the extracts from both these MSS. in the Bodleian were kindly made by A. J. Taylor.
27. "A true and exact Draught of the Tower Liberties, 1597," published by the Society of Antiquaries, 1742.
28. Coloured bird's-eye plan, c. 1660; H.M.O.W. Registry, E. 6. 1606.
29. Plan, 1702, H.M.O.W. Registry, E. 6. 1578; Plan, 1725, British Museum, K. 24, 23a.
30. Plan. c. 1681-89; printed in *Vetusta Monumenta*, Vol. IV; Plan, 1692, H.M.O.W. Registry, 1960.
31. *Calendar of Treasury Books*, Vol. V, Pt. II, pp. 1151-52.
32. *Cal. of Treasury Books and Papers*, 1731-34; pp. 410, 459, 607.
33. Prints in British Museum, King's Library; K. 24, 23.
34. Plan, 1741, H.M.O.W. Registry, E. 5. 1544. Bowles's print, 1753. Plan, 1789, H.M.O.W. Registry, O. 5, 226.
35. Plan, 1800, H.M.O.W., Drg. No. 105/7. Drawing of c. 1810-30, H.M.O.W. Registry, E. 6, 1580.
36. Lord de Ros: *Memorials of the Tower*, 1867, quoted in appendix to the *Diary of Lt.-Gen. Adam Wilkinson, 1722-47*, Royal Historical Soc., 1912.
37. *Notes and Queries*, 7th S., Vol. III, 1887, p. 172.
38. H.M.O.W., Drgs., Nos. 105/9 and 10.
39. Plans and Elevations to accompany letter of 6 Nov., 1845, H.M.O.W. Registry, E. 6, 1581.
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PIRATES OFF MARGATE IN 1315

BY N. G. BRETT-JAMES, M.A., B.LITT., F.S.A.

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THE narrow seas that separate England from the continent of Europe have been during the great World War the scene of very much fighting, and our airmen and naval men and merchant seamen have performed prodigies of valour both in attack and defence. The miracle of Dunkirk was only made possible by the use of dozens or even hundreds of boats of all sizes to bring off again and again boatloads of soldiers to safety. Our freedom from invasion both now and in the previous world war has been largely due to our age-long tradition of the sea; and one can look back to almost every era in our nation's story to see evidence of seamanship, courage and daring which are finding their parallel to-day. Here is the unvarnished tale of a Hendon merchant who lost his ship to pirates off the town of Margate, and of the steps which were taken to give him compensation.