

## Original Documents.

AGREEMENT BETWEEN THE DEAN AND CHAPTER OF ST. PAUL'S, LONDON, AND WALTER THE ORGONER, OF SOUTHWARK, RELATING TO A CLOCK IN ST. PAUL'S CHURCH. DATED NOVEMBER 22, 1344.

(COTTONIAN CHARTER, XXI. 24.)

COMMUNICATED BY SIR FREDERIC MADDEN, K.H.

Ceste endenture tesmoigne, qe convenuz est parentre le Dean et le Chapitre de leglise de Saint Pool de Londres, dune part, et Wauter Lorgoner de Suthwerke, dautre part, cestassaver, qe le dit Wauter ferra une dyal en lorloge de mesme leglise, od rooss<sup>1</sup> et totes maneres de ustimentz appartenantz al dit Dyal, et au tourner del Angel par amunt<sup>2</sup> lorloge, issint qe le dit Orloge soit bon et covenable et profitable a monstrier les heures de jour et de nuyt a durer sauntz defaute, et en cas qe defaute soit trove apres ces heures en le dit Orloge, le dit Wauter se oblige par ceste endenture de faire les adresces<sup>3</sup> totefoiz, quant il serra garni par les ministres de leglise. Et pur ceste overaigne bien et leument parfaire et acomplir, les avantditz Dean et Chapitre luy ferront payer sis livres desterlinges, cest assaver, au commencement cessaunt soutz, et quant le Dyal serra prest de mettre sus, trent souz, et a la parfesaunce de tote loveryne, *cest assaver a la quinzeme de Paske preschein a venir* (interlined), trent soutz. Et le dit Wauter trovera a ses coustages ferre, arresme,<sup>4</sup> et totes manere dautre choses a la dit overeyne parpayre, et avera de vere luy les veuz ustimentz qe ne volunt<sup>5</sup> plus servir. Et pur cele overeyne faire bien et leument le dit Wauter sei oblige et ses heirs et ses executours et touz ces biens. Et pur seurte de cele overeyne parpayre bien et leument, Nichole Peautrer de Lodagate, Stephene Peautrer del Cunditte, Johanne Barbir, Sergeaunt de mesme leglise, Thomas Barneby, archer sur le Pount de Londres, sount divenuz ses plegges, et soi obligent et lour heirs et lour executours et touz lour biens, ou qilz soient trovetz. En testmoignaunce de quele chose al une partie de ceste endenture de vers le dit Wauter, le dit Dean et le Chapitre unt mis lour seals, a lautre partie de vers eaus lesse, les ditz Wauter, Nichole et Stephene, Johan et Thomas ount mis lour seals. Done a Loundres, le Samadi le jour de Saint Edmund le Roi et Martire, lan du regne le Roi Edward tierz del conquete dyssuittme. [22nd Nov., 1344.]

The present deed was the counterpart remaining with the Dean and Chapter, and of the five seals originally attached to it only two remain, and these in a damaged condition. They are the fourth and fifth in order, and may have been borrowed by the parties executing the indenture. On the

<sup>1</sup> *i. e. Roues*, wheels.

<sup>2</sup> *Par-amont*, en haut. Roquefort.

<sup>3</sup> *Adresce*, repairs. *Adressier*, recon-

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struire, reparer. Roquefort.

<sup>4</sup> *Airain*, brass.

<sup>5</sup> For *valent*.

first is a shield bearing the letter S, through which is a cross fitchée, which rises above the shield, and has three wavy lines proceeding from it, like a pennon. Part of the seal is broken off, but the portion of the legend that remains, read—SSIEL . . . . . HAN STRAVNGE. On the second seal is a rude representation of the Crucifixion, with the legend IESVS NA[Z]ARENV[S].

The deed is indorsed in a contemporary hand, *Indentura de factura Orilogii*. In transcribing it, the contractions have been written at length.

In connexion with the early history of clocks, I may take the present occasion to add a few other particulars, which have fallen under my notice in documents preserved at the British Museum. F.M.

*Add. Charter, 4265.*

Jehan de Menelix, master of the works to the Duke of Orleans, certifies, that Thinomas Rogeret, "coustellier et ouvrier de forge," had made "le Reloige<sup>6</sup> de Chasteauneuf, cestassavoir, les mouvemens, roes et roez, et apparten' au dit Reloige, excepte la Cloiche," for the sum of 36 gold crowns. Dat. 13 May, 1396.

*Add. Charter, 4264.*

Pierre le Queux, "Orlauteur," acknowledges the receipt of 30 gold crowns, at 18 solz each, from Godeffroy le Fevre, valet of the chamber of the Duke of Orleans, "pour la vente de trois Auloiges." Dat. 22 Dec., 1396.

*Add. Charter, 1397.*

Robert Dorigny, "fevre," acknowledges the receipt of 9 livres tournois "pour avoir descendu et mis par membres le mouvement de l'Orloge qui estoit en l'ostel de Mons. le Duc a Asniere, et ycellui conduit et fait admener à ses fraiz à Villers Costeret," by order of the Duchess. Dat. 7 Oct., 1397.

*Add. Charter, 4291.*

Jehan Dalemaige, "serrurier," of Paris, acknowledges the receipt of 66 sols Paris, from the receiver of the finances of the Duchess of Orleans, "pour un mouvement ou petite Orloge achate de lui pour mettre en la chambre de ma dite Dame." Dat. 9 Aug., 1401.

*Add. Charter, 4454.*

Jehan Liebourne, "faiseur d'Orloges," at Paris, acknowledges the receipt of 55 solz tournois from the receiver-general of the Conte d'Angoulesme, "pour deux roes et autres choses par lui mises pour l'Orloge de mon dit Seigneur." Dat. 19 Dec., 1407.

The Agreement, for which we are indebted to Sir Frederic Madden, is the only evidence, as far as we can ascertain, regarding the ancient clock at St. Paul's. Dugdale, in his History of that cathedral church, briefly mentions the dial belonging to the clock, "concerning which there was care taken in 18 Edw. III., that it should be made with all splendor that might be; which was accordingly performed, having the image of an Angell, pointing at the hour both of the day and night. *Ex autog. penes Eliam Ashmole.*" Dugdale, p. 22, orig. edit. 1658. It appears probable that the document referred to may have been the counterpart of that now in the Cottonian collection, namely, that which remained in the hands of Walter the Orgoner. Sir F. Madden is not aware that any of Ashmole's MSS. came into the Cottonian collection, and observes that the charter given above formed part, probably, of Sir Robert Cotton's library in the time of James I., previously to the period when Dugdale wrote.

It may be concluded that there had existed a clock in St. Paul's some

<sup>6</sup> Roquefort gives "Reloige: horloge, cadran." Relogium. Additions to Ducange.

time previous to the date of this document, since Walter was permitted to take for himself the old works (*ustiments*) no longer serviceable. We are moreover indebted to the kindness of the Ven. Archdeacon of London for an extract from the *Compotus Bracerii* of St. Paul's, A.D. 1286, in which the allowances to "Bartholomeo Orologiario" are entered, namely, of bread, at the rate of a loaf daily, for three-quarters of a year and eight days, 281 *panes*. "Item, Bartholomeo orolog', post adventum Willelmi Pikewell, 23 bott." (*Botta, butta, Lagenä*, Duc. a liquid measure, probably of beer.)

The earliest *horologium* of which we have any account in this country is that stated to have been constructed in 1288, 16 Edw. I., in the clock-house near Westminster Hall; it was memorable, according to Selden, as having been the result of a fine imposed on the Chief Justice, Ralph de Hengham. One of the most ancient clocks now existing in England is that to be seen in Wells Cathedral: it was made by Peter Lightfoot, a monk of Glastonbury, at the expense of Adam de Sodbury, Abbot of that house, 1322-35. It was removed to Wells from the abbey church of Glastonbury, at the suppression. A representation of this remarkable horloge is given in Phelps' Hist. of Somerset, vol. ii. p. 66. See also Warner's Hist. of Glastonbury, pl. ix. Above the dial, it may be observed, there is a turret, round which four mounted knights revolve, when set in motion by a communication with the clock. This may possibly serve to explain the expression in the agreement communicated by Sir F. Madden,—"*au tourner del Angel par amunt lorloge.*"

Another memorable production of early skill in clockmaking was the horloge called Albion, in St. Alban's Abbey Church, one of the gifts of Richard de Wallingford, abbot, 1326-34. Representations of the abbot and his clock may be seen in Cott. MSS. Claud. E. IV. and Nero, D. VII. It seems to have continued to go as late as the time of Leland, who gives an account of it in his treatise de Scriptoribus Britannicis, vol. i. p. 28.<sup>7</sup>

Mr. Octavius Morgan suggests, with much probability, that the clock at St. Paul's, for which Walter the Orgoner constructed "*une dyal*," may have previously been one which struck the hours, but was not furnished with a face; and he observes, that such a clock, of the early part of the XVIth century, is now at Leeds Castle, Kent. This has the movement and striking part complete, but no dial-works or face. We may here express the hope, that Mr. Morgan may speedily complete for publication the History of Clock and Watchmaking, from the earliest times, a desideratum in archaeological literature which no one is so highly qualified to supply.

As a contribution towards the materials for so desirable an object, the following extracts from the Sacrist's Rolls, preserved amongst the archives of the Dean and Chapter at Norwich, may here be appended to the valuable information which we owe to the kindness of Sir F. Madden. The earliest entry which has been noticed in the Rolls at Norwich is in 1322.

"Horolog'.—In uno plate de metallo empto iv. d. ob., in sound' empto xvi. d. l' in factura v. ymaginum xx. s. Item, garcioni facienti capit' iij. s.

<sup>7</sup> See also Newcome's Hist. of St. Albans, p. 250. It is said that the abbot, who, was the son of a blacksmith, and attained to great proficiency in science at Oxford, had begun early in life to construct this clock, and resumed his work through the encouragement of Edward III. Mr. Clutterbuck, in his account of it, Hist. of

Herts, vol. i. p. 28, states that it was completed by Laurence Stokes, in the time of Abbot de la Mare, 1350-96.

<sup>1</sup> Doubtless the sounds or swimming bladders of fish, used as size either to temper colours, to form priming for the ground, &c. In the accounts relating to the Painted Chamber frequent mention

In stipendiis Magistri Roberti xxx. s." Andrew and Roger, carpenters, are also mentioned as employed at this period; the total of the expenditure, between Michaelmas and Christmas, amounted to 4*l.* 19*s.* 8*d.*

In the *Compotus* of 1323, several entries occur under the head *Orologium*.—Payments of wages to Andrew the carpenter, to Robert, to Roger de Stoke; with the following payment for the latter,—“pro cariagio pannorum et instrumentorum ejus, viij. s.—In uno hose de Latoun, iiij. s. vij. d. q<sup>a</sup>. Item, magistro Ade sculptori pro factura xxiiij. parvarum ymaginum, xj. s. Item, in cc. lapidibus de Cadamo, xxij. s. Item, Johanni fabro pro opere ferri ad orologium, iij. s. ix. d. Item, lib' Roberto de Turri pro factura magni laminis, x. s. et tantum in perdicione quia pro paupertate non potuit opus perficere nec aliquid ab eo exigi. Summa, vi. li. xij. s. ix. d. q<sup>a</sup>.”

The Roll of the following year is not to be found.

The *Compotus* of the year 1325 comprises the following entries:—

“Expense Orologii.—Item, in cc. et dimid' Bord' emptis, xlvij. s. Item, in cariagio ejusdem, xvj. d. Item, in x. lapidibus nomine *Gobetz*<sup>2</sup> cum cariagio, vij. s. ij. d. Item, in stipendio unius cementarii circa fundum orologii, iij. s. viij. d. Item, in meremio ad curbas, xviiij. d. Item, in ferro empto, xvj. s. ix. d. ob. Item, in opere ferri, xvij. s. v. d. Item, in ere empto, xvj. s. iiij. d. Item, in uno lamine cupreo, vj. d. Item, in factura lune cum pictura et deauratura, x. s. Item, in uno lamine cupreo cum deauratura ad solem, xj. d. Item, in ij. tenuibus laminibus eris, xv. d. Item, in instrumentis et emendacione instrumentorum, x. d. Item, in cordis ad orologium, ij. s. vij. d. ob. Item, in factura xxx. ymaginum, xlvij. s. iiij. d. Item, in meremio ad quasdam ymagines, ij. s. j. d. Item, in pictura choree monachorum in grosso, xij. s. iiij. d. Item, in albo et rubeo plumbo, foliis argenti, oleo<sup>3</sup> et coloribus ad ceteras ymagines, x. s. viij. d. ob. Item, in pictura dialis interioris et tabule sub diali exteriori, ix. d. Item, in v<sup>r</sup> auri cum cariagio de London', xxj. s. vj. d. Item, in xxv. foliis auri, xij. d. Item, in pictura barellorum, xvj. d. quia bis. Item, in stipendio pictoris et garcionis sui per xiiij. septimanas et ij. dies, capientis per diem viij. d. per septimanam ix. s. vj. d. et non plus quia steterunt in mensa domini.<sup>4</sup> Item, in magno lamine ad diale, iiij. li. vij. s. videlicet iiij<sup>xx</sup>. vij. li. metalli pro totidem solidis. Item, in cariagio ejusdem laminis de London' apud Norwycum, vii. s. Item, in expensis diversorum garcionum diversis vicibus London' missorum pro predicto lamine, v. s. viij. d. Item, in ferro empto, iiij. s. Item, datum cuidam operatori nomine Roberto de Turry ad predictum lamen faciendum, in partem solucionis, xviiij. s., in cujus manibus totum opus periit, et ita depauperatus x. solidos restituit et octo amittuntur quia nichil habuit in bonis. Item, pacatum cuidam operatori apud London' in partem solucionis ad predictum lamen faciendum, vij. s. Item, cuidam alio sub simili pacto, v. s. qui ambo totum quod fecerunt perdiderunt et nichil propter eorum egestatem potuit ab eis exigi. Item, in expensis magistri Rogeri, garcionis et equi sui, propter predictum lamen London' missi, iiij. s. j. d. Item, in cariagio rerum de London' xij. d. Item, in

occurs of “cole” (Fr. *colle*, glue), as also in those concerning St. Stephen's Chapel, the *novum opus* at Ely, in 1339, &c. In the Ely account is the item—“4 buss' de scrowes pro Cole faciend', 13d.” These were probably cuttings of parchment or skin. Archæol. vol. ix. p. 153.

<sup>2</sup> The Promptorium gives—“Gobet, lumpe, frustum, massa, Gobet of a thyng

kutte, scissura. Gobet of a brokyn thyng, fragmen.”

<sup>3</sup> The express mention of oil for the preparation of pigments is not undeserving of notice.

<sup>4</sup> The painter and his assistant had their board at the table of the Lord Prior, and on that account a reduction was made in their wages.

factura cimbalarum, xvj. s. ix. d. Item, in viij. cimbali parvis emptis a quadam veniente de Cantuar',<sup>5</sup> ij. s. viij. d. Item, pro una lapide pro cimbali emendandis, vj. d. Item, in Batellulis ad cimbali, vij. d. Item, in ferro et factura ferri, xx. s. Item, in clavis, ij. s. v. d. Item, in opere ferri, ix. s.

Stipendia cum Robis.—In stipendio Roberti Orologiarri pro iiij. terminis, xl. s. Item, in roba ejusdem cum furure, xvj. s. Item, in garneamento dato filio suo, iiij. s. Item, in stipendio Andree carpentarii per xxiiij. septimanas, capientis per septimanam vij. d., xiiij. s. Item, in stipendio ejusdem per vj. septimanas, capientis per septimanam ut supra, iiij. s. vj. d. Item, in stipendio J. de Belawe per xij. septimanas, viij. s., qui comp' viij. d. per septimanam. Item, in stipendio magistri Rogeri Orologiarri per ij. annos et xj. septimanas, vj. li. qui cepit per septimanam x. d. Item, in stipendio Laurencii Orologiarri per ij. annos, lxix. s. iiij. d. qui cepit per septimanam viij. d. Item, in roba magistri Rogeri primi anni, cum furur', xix. s. vj. d. Item, in robis Rogeri et Laurencii secundi anni, cum furur', xxxiiij. s. vj. d. Item, in robis eorundem tercii anni cum furur', xxxiiij. s. viij. d. Item, in oblacionibus eorundem per totum tempus, v. s. vj. d. Summa, xl. li. xvj. s. ob."

By the foregoing extracts it appears that the *Orologium* at Norwich was an elaborate piece of mechanism, furnished with many painted images, which doubtless performed surprising evolutions, like the twelve knights issuing from small windows in the *horologium* described as sent by Aaron, king of the Persians, to Charlemagne; (Annales Francorum, A.D. 807.) There were such *automata* connected with the Glastonbury clock, above mentioned, as also in the celebrated piece of mechanism at Strasburgh. At Norwich there was a set of 24 small images, the work of Master Adam the sculptor, probably personifying the hours of the day and night. There were also 30 images, doubtless representing the days of the month; painted and gilded plates portraying the sun and moon, &c. A painted *chorea monachorum*, or procession of monks, formed part of this curious mechanical pageantry. A large metal plate for the dial was procured from London, apparently with some difficulty, numerous messages having been despatched thither regarding it by various *garçones*. This *lamen*, which weighed 87 lbs., was evidently a complicated and very elaborate work, engraved possibly with a multiplicity of lines indicating the movements of the heavenly bodies. The construction was obviously attended with no ordinary difficulties; Master Robert de Turri failed in the attempt, and two artificers from London who succeeded in his place were equally unsuccessful. The works appear to have been in progress during three years, and besides iron-work, brass, copper, and "latoun," a considerable amount was expended in carpenters' work, decorations in colours, enriched with gold and silver foil, &c. Two hundred pieces of Caen stone, and ten of stone termed "Gobetz," were employed, possibly in the construction of the base upon which the clock was fixed; (*fundum orologi.*) The position which it occupied in the church is not, as far as we are aware, now to be ascertained.

A. W.

<sup>5</sup> The pilgrims to the shrine of St. Thomas appear to have furnished themselves with small bells, in the manufacture of which, probably, Canterbury had some celebrity. In the examination of William Thorpe by Archbishop Arundel, in 1407, as related by himself, it is said that some pilgrims indulged in wanton songs, others

would have bagpipes—"so that in everie towne that they come through, what with the noise of their singing, and with the sound of their piping, and with the jangling of their Canterburie bells"—more noise was made than if the king came that way. Wordsworth, Eccl. Biogr. vol. i. p. 168.