Reginald Scot (The construction of Dover harbour) in Raphael Holinshed and others The third volume of chronicles London 1587

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THE

Third volume of Chronicles, be= ginning at duke William the Norman, commonlie called the Conqueror; and descending by degrees of yeeres to all the kings and queenes of England in their orderlie successions:

First compiled by Raphaell Holinshed, and by him extended to the yeare 1577.

Now newlie recognised, augmented, and continued (with occurrences and accidents of fresh memorie) to the yeare 1586.

... 1268

THE CHRONICLES OF England, from the yeare of our Lord 1576, where Raphaell Holinshed left; supplied and continued to this present yeare 1586: by Iohn Stow, and others.

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1535a

The note of Reginald Scot esquier con= cerning Do= uer hauen.

In this yeare one thousand fiue hundred eightie and six, certeine of the lords of hir maiesties most honourable priuie councell made an appointment to haue met at Douer, to surueie a notable peece of worke there latelie performed about the hauen, to the benefit of the whole land. Howbeit the said lords, by means of other accidents of importance, staid at the court, and went not that iourneie. Neuerthelesse the lord Cobham, lord warden of the cinque ports, one of hir maiesties privie councell, repairing thi= ther (accompanied with diuerse knights and gentle= men of great worship) did take the view both of the worke finished, and also conferred about the busi= nesse then in hand. Now for so much as that which is alreadie doone, is a perfect and an absolute worke, to the perpetuall maintnance of a hauen in that place, being such a monument as is hardlie to be found written in anie record, it might seeme absurd that no mention thereof should be made in this chronicle: and that the cost and businesse thereabouts imploied hath not beene vnnecessarie, may appeare by the rea= sons insuing.

Considerations whie the buil= ding of Douer hauen is here recorded. First, Douer hath beene euer reputed the keie and locke (as Matthæus Parisiensis reporteth, or (as rather he should haue said) the verie doore and en= trance into the realme of England, either for freend Douer the neerest place of England to France.

Douer the most conueni= ent place of England for a hauen.

Reasons whie a harbor at Douer would be so beneficial

A true com= mendation of queene Elisa= beth.

The pent at Douer will mainteine a hauen there for euer. or fo, and also the readie passage vnto all nations. but especiallie into France, from whense it is not distant aboue thirtie English miles, and is common= lie passed in fiue or six houres at the most, and in a prosperous wind within halfe the time. Secondlie, it standeth in the most conuenient place of all this land to offend the enimie, and to defend either dome= sticall or forren freend. Thirdlie, a meane harbor would be there (in the opinion of all skilfull mari= ners) more beneficiall and commodious for the na= uigation of England, than an excellent hauen placed anie where else about the coast thereof. Fourthlie, all our passengers through the narrow seas being distressed by violence of weather, or by inconueni= ence of pirasie, or else by force of the common eni= mie in the time of warre, might there haue present succor and refuge, and both speedie and easie passage thereinto, or otherwise be best rescued. Fiftlie, of late yeares, the considerations aforesaid haue mooued some noble princes of this land, to bestow infinit treasure to gaine a harborough or hauen in that place, to their great honor, fame, and commendati= on, to the woonderfull contentment of all their sub= iects, and for the good and benefit of all the neighbors adioining, and strangers passing these narrow seas. Finallie, it hath pleased our most noble gueene Eli= sabeth to vndertake it, who in all good actions and ne= cessarie woorkes, for the benefit of the realme, and commonwealth of England, hath beene so liberall, carefull, and prouident, as thereby hir glorie and re= nowme is spread ouer all the face of the earth, and reacheth vnto heauen, where the King of kings sit= teth, and heareth the praises and praiers, not onelie of hir owne people, but of all christians liuing in hir behalfe, for whose good (it seemeth) she was brought foorth and preserued in this world.

And now (I saie) for so much as hir highnesse hath at this present time taken order for the building of a new hauen in this place, and bountifullie imploied great summes of monie vpon the same (being be= gun with more probabilitie, iudgement, and circum= spection, and accompanied with better successe than euer anie of hir highnesse predecessors haue hereto= fore had in this case, wherein the most difficult and dangerous worke is alreadie accomplished, so as there is now and euer hereafter will be a verie good hauen, except extreame negligence be vsed in main= teining the same) I thought it a most necessarie

### 1535b

matter to be here recorded, to hir maiesties perpetu= all fame, and partlie also to giue light & incourage= ment to hir successors in the crowne of England, to attempt and vndertake, and the better to execute and accomplish the like famous enterprise. For acti= ons of farre lesse importance are made memorable by historiographers, as in euerie chronicle may ap= peare.

In this discourse I thought meet to passe ouer the antiquitie of the towne and port of Douer, with the liberties thereof; which togither with the ruines and misfortunes of fire are to be found extant in the per= ambulation of Kent, written by William Lambard In peramb. Cant. tit. Douer.

Douer castell reedified by queene Eli= sabeth.

Edward the fourth bestow= ed 10000 pounds vpon reparati= ons of Douer castell.

The situation of Douer har= bour

A naturall rode for ships at Douer.

The hauen of Rie decaied, whereby more need of a har= boure at Douer. Ships lost for lacke of suffi= cient harbour at Douer. esquier. Of Douer castell somewhat might here be said, but for so much as maister Lambard hath so largelie discoursed therevpon in his booke, which is likelie to remaine of continuance. I will make bold with the reader to referre him therevnto; and onelie giue this note (to wit) that whereas he iustlie com= plaineth of the miserable ruines therof; it hath plea= sed hir maiestie (in respect of the necessarie mainte= nance of the same) to bestow more charge of late in reparing and reedifing of it; than hath beene spent thereabouts (as it seemeth) since the first building thereof, whether the same were doone by Iulius Ce= sar the Romane emperor, or by Aruiragus then king of the Britains (king Edward the fourth onelie ex= cepted) who (as John Rosse reporteth) did throughlie repare it, bestowing thereon 10000 pounds, inso= much as it is now reduced to be a peece of great force and importance, and verie beautifull to behold. Wherin the honorable disposition of the lord Burleie lord high treasuror of England is to be commended, who was a principall furtherer thereof, & whose for= wardnesse in all militarie affaires is had in admira= tion among all the best souldiours of England, al= though he himselfe an aged and a most graue coun= cellor. And in these commendations if I should o= mit the praises of the honorable lord Cobham, lord warden of the cinque ports, and constable of the ca= stle of Douer, &c: I should doo him great wrong. For by his prouidence and mediation, togither with the diligent trauell and industrie of Richard Barrie es= quier, lieutenant of the said castell, that worke is ac= complished, to the comfort and benefit of the whole realme. Within the wals whereof is now also raised such a mount at the north side thereof, as thereby the castell is double so strong as before. But omitting all other occasions and matters concerning Douer, I will now passe to my purpose.

But yet, before I enter into these last works, I must giue you to vnderstand, that the verie situati= on of the place ministreth incouragement to the ex= ecutioners, and yeeldeth great fauor and occasion to the attempt. For Douer cliffes stand to the sea north and east, the towne being placed at the foot of the northerne cliffes, the castle on the top of the easterne cliffes, called the Castell Raie: so as there is a natu= rall baie, through the which from by north issueth a proper river entring into the same baie: and thense runneth through the hauen into the sea. In times past, vntill of late yeares, that onelie baie hath ser= ued them for a rode, and at manie times in some sort hath stood the nauie (but especiallie the fisher botes) in good sted. For in a great northernlie and westernlie wind, the ships were driuen from the Downes and the foreland to repaire thither, where they might lie safelie vntill the wind blew great from by east or south, and then were they driuen to depart thense vnto the Camber at Rie (which then was a notable good rode, though now vtterlie decai= ed) or into the Isle of Wight. For in a sudden flaw or storme of wind at southeast, there hath bin seuen or eight ships broken all to peeces in one daie vpon

The first be= nefit bestowed on Douer har= bour.

Little para= dise.

In the reigne of Edward the Confessor.

Sir Iohn Thomson priest his sup= plication. the said cliffes. To relieve & amend the same har= borough, and somwhat to mitigate the foresaid incon= uenience, there was a round tower built by one Iohn Clarke, priest, maister of the maison de Dieu, about the vere one thousand fiue hundred at the south west part of the said baie, which serued somewhat to defend the ships from the rage of the southwest wind, but especiallie to moore the ships which were tied therevnto. For manie great ringles were faste= ned to the same tower for that purpose, as it maie vet be seene, sith it standeth there at this houre. And hereby that part of the baie was made so pleasant. as euer after that corner hath beene named, and is at this daie called Little paradise. Neuerthelesse this was thought verie insufficient in respect of the place, for the safegard of such a multitude of ships as vsuallie laie for harbour in that rode. For besides all strange botes which commonlie repaired thither, it appeareth in the booke of Doomesdaie, that Douer armed vearelie at his proper charges twentie ves= sels to the sea by the space of fifteene daies, with one and twentie able men in ech ship.

Now about the yeare of Christ one thousand fiue hundred fiftie and two, one sir John Thomson clarke parson of the parish of saint lames in Douer, being a man ingenious, and seeing the conueniencie and possibilitie of a good hauen to be made in that place, consulted with the chiefe and best mariners of the towne. Among whom it was agreed, that humble sute should be made to the kings maiestie by the state of the towne, for his gratious fauour and aid to= ward the making of a good hauen there. And it was also by them all thought meet, that the said sir lohn Thomson should exhibit their petition to his high= nesse: wherevnto he agreed, and drew a plot, and pre= pared a supplication in the name and behalfe of the towne, conteining the necessarie causes and rea= sons, deuises and instructions, for the erection and building therof. But he told them he was poore, and therefore vnable of his owne proper charges to fol= low the sute. In which respect they collected among themselues, and deliuered vnto him foure pounds ten shillings, which he accepted, and foorthwith repai= red to the court: where he so demeaned himselfe, as he had present accesse to the king, who heard his sute with great fauor, and debated with him about the contents of his plot, and liked so well of his informa= tions that he willed him to repaire home, & without delaie to returne to his presence accompanied with some of the best mariners or seamen of the towne. and so with commendations dismissed him for that time. When the maister of the towne vnderstood his graces pleasure, they immediatlie assembled them= selues, and made choise of Edward Maie, Robert lustice, Richard Cowchie, and John Steward, as the fittest and skilfullest persons to vse conference, and to be imploied in that cause, being all mariners of good experience. These foure and the said sir lohn Thomson without further staie resorted to the court, with whom when the king had communed, he con= ceiued of the necessitie of a hauen to be there had, and of the probabilitie and likelihood of good successe in the enterprise to be performed according to their

<r 'thirtie'>

Fiue hundred pounds giuen by Henrie the eight towards a beginning of Douer works. The maison de Dieu of Douer.

Surueiors and ouerseers.

Sir Iohn Thomsons deuise disco= uered.

The Mole= head.

Douer pierre when it was taken in hand, and whereof it consisted.

A notable de= uise to carrie great rocks by water. suggestion. And because his maiestie vnderstood the poore estate of the towne, he granted his gratious aid for the supplie of their want of monie, deliuering at that time out of his owne cofers vnto them the summe of fiue hundred pounds, wherewith he willed them to make a beginning of the worke. At which time he bestowed on the said sir lohn Thomson the maistership of the maison de Dieu of Douer, which was a hospitall, valued at one hundred and twentie pounds by the yeare: the custome and dutie of the which house was (as the ancient townesmen informe

## 1536b

me) to interteine and relieue souldiors, and others which came from beyond the seas, hurt or distressed, who were allowed some reliefe there by the space of certeine daies gratis: which though I find not direct= lie set downe in record, yet doo I know assuredlie the same to haue beene put in execution, wherewith the verie name of the house is agreeable, and as it were a credible witnesse. The king at that time also appointed the said sir lohn to be principall surueior of the works, and vnder him the other foure to be o= uerseers of the same.

Now am I to giue you to vnderstand, that the drift and deuise of the said sir lohn Thomson was to erect a huge wall (which he termed by the name of a pierre) from Arcliffe chapell being the southwest part of the baie directlie towards the east into the maine sea, about 131 rods in length: so as by that means the harborough was to be garded from the rage of all weather, comming from the north, northeast, northwest, and southwest, and so the entrance onelie at east southeast, wherinto when the ships were once brought, they might there lie safe in all weather, at the one side or the other. But the pierre was not fini= shed by 530 foot so farre as the foundation thereof (which is called the Molehead) was laid, which foun= dation consisted of great rocks, brought from a place neere hand, called Hakcliffe, or the castell Raie & Folkstone. This pierre was begun on S. Annes daie 1533, and it was compiled of two rowes of maine posts, and great piles, of fiue or six & twentie foot long, set at each side close togither, which were let downe and put in certeine holes hewed in the great rocks, laid for that purpose: but some of those piles were shod with iron, and driuen into the maine rocke of chalke, with a great engine called a ram. These posts and piles were combined and held to= gither with iron bolts, and were filled with mightie stones of chalke and with beach and other earth: but the bottome consisted altogither of great rocks of stone, which if they had not beene brought thither by a special deuise, must needs haue beene extreame chargeable, for manie of them were of twentie tun a peece, and few vnder.

The practise of this cariage is now common, but it was before that time rare & vnknowne in Eng= land, and inuented there by a poore simple man na= med lohn Yoong, who first with a nutshell, and after with an egshell, & lastlie with a small vessell, made proofe what weight those things could raise & beare in the water; and having by that experiment made tri= all, or at least a probable conjecture, that stones of great weight might be raised and carried in the wa= ter by greater vessels: he discouered his experience to such as were officers in the worke, who presentlie put in practise and execution the same deuise, & ma= king prouision of great & strong barrels and pipes of wood, caried them to Folkstone, and at low water fastened thereto with chaines such huge stones as laie on the shore neere the low water marke (where the quarrie or mine of those rocks is) so as when the floud or full sea came, the said vessels with the stones therto fastned rose vp & swam. And if the stone were of such quantitie as two or three emptie casks could not lift it vp, then did they ad a barrell or two more, which would not faile to do it: then did they drag with small botes the casks and stones thervnto tied, to the place where they were disposed to sinke them, and so the worke wherein consisted the greatest difficultie (in appearance) was with most ease & least charge ac= complished. And for this deuise the said lohn Yoong had a yeerelie stipend giuen vnto him by the king during his life. With these stones, as also by this meanes was the greatest worke doone, and with great cost and labour these piles were filled vp.

Foure pence a daie.

### 1537a

A Gaboth.

The charge of the pierre.

The kings care for Do= uer pierre. The kings repaire to Douer.

The cause of the decaie of the pierre.

The chalke and filling therof being brought from the north pierre, was conueied thither in a great bote called a Gaboth, which had nine keeles. There stands yet of the timberworke of the old pierre eightie foot in length, & ioines vpon that part of the pierre where stood a fort named the blacke bulworke.

Now that which was doone on that side, with the helpe of nature at the other two sides made an ex= cellent rode or harborough for the time it continued, and had maintenance. The king for his part spa= red no charge, for he spent hereabouts (as I am cre= diblie informed) fiftie thousand pounds, nor yet did forbeare anie trauell which might further the worke. For in person he purposelie repaired thither diuerse and sundrie times, being distant from the court fif= tie miles at the least; yea his highnesse had such care that it should be well performed, that no expert man in water works, either on this side, or beyond the seas, but (if it might be) he was brought thither, or at the least conferred withall. And during the time of all the worke, the kings coffers seemed to stand wide open. But alas, the kings care and charge, and the continual trouble and trauell of officers was such about the worke present, that the prouision for the future maintenance thereof was vtterlie neg= lected. For the kings absence at his being at Bul= longne, his sickenesse at his returne, and finallie his death meeting with the nonage of his son king Edward the sixt, made an end of all this worke: which being once in the state of decaie, there was no reparations nor further proceeding therein, till the time of gueene Marie; in the beginning of whose reigne (by the space of two yeares) there was some rumbling thereabout. But the workmen and offi= cers were not well paid; and after bad paiment, no paiment, & so all was giuen ouer. Sir Anthonie Au= cher was treasuror in these works, and manie other

#### Officers a= bout the pierre. The ruin of Douer pierre.

Stone called beach or bowl= der choked vp Douer hauen.

Two causes of the decaie of Douer pierre.

Sometime no harborough at

all at Douer.

cost to be imploied therevpon, and sufficient prouisi= on to mainteine the same: but especiallie through the disorder of the poorer sort of the townesmen, who 1537b

The decaie of the pier grew now more and more,

partlie (as is said) through want of prouidence and

dailie purloined timber, iron, and all that was anie thing woorth, which they could pull or catch from the decaieng places of the pierre. And now (by means of this shelfe) the hauen waxed woorse than euer it was, insomuch as oftentimes, a bote that drew but foure foot of water could not enter into the mouth thereof, and sometime none at all: for the baie was altogither shut vp, so as the harborough was be= come a pent, out of the which nothing could passe out or in, saving the water that soked through the beach. But the riuer, which issueth out of the towne at a water gate standing at the northeast end of the said pent, in continuance of time would make an issue through some part of the same beach into the sea. sometime at one end, sometime at another, some= time verie shallow, and neuer verie deepe; which is= sue was alwaies their hauens mouth, vntill a con= trarie wind did stop it vp againe, and then had they no entrance at all, vntill the riuer had made a new fret, or that they had digged a chanell through the beach, which manie times they were driuen to doo.

How Douer was made desolat.

The losse of this hauen, and the losse of Calis, which happened about one time, made such an alte= ration, or rather desolation in and of the towne, as

inferior officers also there were, but especiallie of clerks.

But now I am to declare vnto you the lamen= table ruine and decaie of this worke, before the end and finishing whereof there was brought along the coast from by southwest a maruellous guantitie of beach and bowlder stone, wherof there had beene ne= uer anie seene before in those parts of that coast, and a great quantitie thereof rested vpon the backe of the pierre, especiallie before the blacke bulworke, which (so long as it might lie there without further annoiance) was (in appearance) a singular helpe for the strength and preservation of the said worke, but it fell out otherwise. For beside that, that an eas= terlie great wind would remooue and driue it from that coast, and consequentlie from the pierre, which then would lie naked as before, vntill the south and westerne wind turned it backe againe; the pierre through negligence decaieng, especiallie at the blacke bulworke (where the greatest abundance of beach vsuallie rested) it passed through the decaid pla= ces thereof in such measure, as in short time there= by grew a shelfe of beach from that point of the pier to the east part of the baie, butting to the Castell Raie: so as no entrance thereinto for anie ship re= mained. And the more that the furthest point of the pierre decaied and waxed shorter, the neerer was the shelfe brought vnto the shore: insomuch as if the residue of the pierre had not bin preserued, that shelfe would soone haue beene brought to the verie towne, and so haue choked vp the baie, and bereft all possibilitie of euer hauing a harbor in that place.

That beach which destroi= ed the pierre helpeth now the hauen.

A bountifull gift of queene Elisabeth to= wards the re= paring of Do= uer hauen.

The patent of the queenes gift sold vnto two merchants.

#### 1538a

The act of parlement for Douer hauen 23 Elisab. was lamentable and woonderfull to behold. For of a braue, rich, and populous towne, it presentlie became a poore and desolat village, reteining onlie the name and liberties of the famous port of Douer. Neuer= thelesse, the necessitie and expedience of a good ha= uen in that place did still remaine, and a conuenient meane also was left for the accomplishment therof, as it seemed to diuerse which were wise and of good experience: insomuch as that verie matter, which was supposed to be the destruction of the late harbo= rough, should now become a principall helpe and fur= therance to a new hauen of greater importance, and better securitie than euer it was before. For (as you haue heard) Douer cliffes naturallie defend this baie from all tempests comming from northest and northwest; the pierre yet remaining gardeth it from the west and southwest winds; and the shelfe of beach crossing from the end thereof to the Castell Raie, had made such a close pent, as if anie ships could be conueied therinto, they might there rest in great safetie.

The roome within this close baie conteineth al= most fortie acres, and the river (as I have said) run= neth quite through the same immediatlie into the maine sea at south: so as the said pent being sur= rounded at euerie high water, & lieng almost bare at euerie ebbe, the ouze or sleech grew to be foure= teene or fifteene foot deepe, the bottome thereof being a maine rocke of chalke: insomuch as a great mul= titude of ships might be placed there in good securi= tie, if the entrance could be made good. These things considered by men of good capacitie and experience, sundrie deuises and conceits were exhibited therea= bouts, wherof some seemed verie probable; and were the rather heard and commended, for that the worke was so necessarie and beneficiall to the common= wealth. And in that respect, it pleased the gueenes maiestie to grant to the towne of Douer, towards the reparing of their hauen, the free transportation of thirtie thousand guarters of wheat, ten thousand guarters of barleie and malt, and foure thousand tun of beere, without paieng either custome or im= post: which was a gift of no small importance.

For (beside great summes of monie alreadie le= uied & imploied vpon the beginning of these works) the licence or patent was sold to a couple of mer= chants of London named lohn Bird, and Thomas Wats, after the rate of three shillings & foure pence for euerie quarter of wheat, and two shillings and eight pence for euerie quarter of barleie and malt;

and the licence of beere being sold to diuerse others amounted to foure thousand marks at the least. Besides all this, it was enacted in the parlement holden the three and twentith yeare of the reigne of

hir maiestie, for and in the considerations aforesaid,

and for that there was a probable plot contriued by

skilfull men, to be performed for a conuenient sum of monie, that for euerie ship, vessell, or craier, wher= of anie of hir maiesties subjects were owners, or part owners, being of the burthen of twentie tuns or vpwards, loding or discharging within this Three pence the tun of euerie vessell allowed to= wards Douer hauen. The tunnage amounted to 1000 pounds yearelie. The tenure of the queenes commission for Douer hauen.

lohn True surueior gene= rall of Douer hauen.

The deuise of lohn True.

realme, or passing to or fro anie forren countrie, du= ring the space of seuen yeers then next insuing from fortie daies after the end of the same session of par= lement, there should be paid for euerie such voiage by the maister or owner of all such vessels, &c: the summe of three pence for euerie tun of the burthen of such ship, &c.

Hereby there grew great summes of moneie to be veerelie leuied toward these works, amounting to 1000 pounds veerelie at the least, and yet the time not expired by two veeres. After this, hir maiestie being carefull that the hauen should with expedition be taken in hand, directed hir letters patents, da= ted the nine and twentith daie of March, in the foure and twentith yeere of hir reigne, to the lord Cobham lord warden of the cinque ports, &c: sir Thomas Scot, sir lames Hales knights, Thomas Wootton, Edward Bois, the maior of the towne of Douer present and to come, Richard Barrie lieutenant of the castell of Douer, Henrie Palmer, Thomas Digs, Thomas Wilford, and William Partrige esquiers, all which were of the shire, and men of great wisedome and judgement, and no small trauellers in matters concerning the commonwealth: some of them maruellous expert in affaires and matters of the sea, some in fortifications, some having tra= uelled beyond the seas for experience and conference that waie, and to see the order of forren seaworks & hauens, and none without singular vertues. In which respect they were commissionated and autho= rised by those presents, to doo, and foresee to be doone from time to time, all things needfull and requisit to be imploied about the reparing and mending of the said hauen, and as might tend to the furtherance of the said seruice; and to choose officers, & assigne their stipends, and the seuerall fees of all ministers, atten= dants and clerks needfull for the substantiall, neces= sarie, speedie, and cheape dooing thereof, and therein to set downe particular orders and directions, as might be for the furtherance and accomplishing of the said works most expedient.

Now for the performance hereof, manie plots by sundrie persons were deuised, and first of all one Iohn True was commended, or at the least com= mended himselfe to the lords of hir maiesties priuie councell, to whome he made great shew to be an ex= pert enginor, and by their lordships he was sent to Douer, and presented to be generall surueior of the works, as one in whome they reposed great hope of furthering and finishing the said hauen; whereof he made no doubt, but resolutelie promised the speedie execution and accomplishing thereof. His deuise and determination was, to make within the said baie neere to the shelfe of beach, a long wall from the water gate (out of which the river issueth into the harborough) to the blacke bulworke, in length two hundred rods. This wall was to be made of excel= lent stone at Folkstone, the which he framed after a strange and contrarie kind of workmanship. And there was for this purpose alredie perfectlie hewed of the same stone seuen thousand foot, and six thou= sand foot more was scapled; he bestowed and spent thereabouts one thousand two hundred foure score

# 1538b

Stone hewed at Folkstone, amounting to 1288 pounds.

Infinit charge to ac= complish the stone wall.

True had ten shillings a day for his fee.

lohn True is dismissed.

Ferdinando Poins.

Poins his groine.

The pent 16 acres.

The length of the long wall.

and eight pounds, as appeareth in the accounts of the treasurors for that time being; and yet there was not one stone of his said long wall laid, nor that hi= therto hath come to anie profitable vse. But this wall if it had beene, or rather could haue beene fini= shed, it would haue cost a hundred thousand pounds, and yet would neuer haue serued the turne. For a stone wall is so contrarie to the nature of that san= die foundation, as it can make no good conjunction nor perfect pent.

For the furtherance of his deuise he would haue plucked downe a great part of the old pierre, wher= of there was then too little remaining: he detracted the time, for he had ten shillings a daie allowed vnto him for his fee, which perhaps he was loth to forgo. He either could or would not render anie reason to the commissioners of his dooings and finall purpose, but alwaies said he would make them a good hauen, neither would he set downe anie time certeine for the accomplishing thereof. All these matters with his negligence, delaies, and vntowardlinesse of his works, being aduertised to the lords of hir maies= ties councell, he was dismissed.

After whom, one Ferdinando Poins, who had beene conuersant & acquainted with water works in the low countries, & had dealt much about Wool= wich and Erith breaches, offered his seruice for the accomplishing of these works; affirming, that it was an easie matter to bring the same to passe, in such sort as there should soone be a good harborough; refusing not to haue taken the worke to do by great. either by a plot of his owne deuising, or else by the plot agreed on by the commissioners, and allowed by the lords of the councell. But this Ferdinando Poins, though he seemed a verie good executioner either of his owne, or another mans deuise concer= ning such affaires: yet was he verie loth to discouer his order and maner of working, or anie other de= uise of his owne, least (as he said) he might be pre= uented by some other that would vndertake to doo it by his deuises, better cheape than himselfe could affoord it, and so he to loose, and other to gaine the be= nefit of his inuention. Howbeit, in the end he was content to be imploied anie waie, so as therewithall he might haue monie before hand: for Woolwich works did so sticke in his fingers, as moneie was verie palpable and plausible vnto him.

In fine, he vndertooke to make certeine groins or knocks, which at the hauens mouth should cause such a depth, as thereby the whole harborough should lie drie at a low water, whereby the works about the wals might the better and more conuenientlie be performed, and the present entrie amended. For it was concluded, that there should be made a perfect pent within the baie, conteining in quantitie about sixteene acres, which should be inuironed with a long wall, reaching from aboue the water gate neere to the Castell Raie, extending in length about a hun= dred and twentie rods along within the shelfe of beach, directlie towards the end of the pierre, where the blacke bulworke was placed; and at the end of The crosse wall.

The rode for ships.

One thousand pounds to Ferdinando Poins.

Customer Smith. the said long wall, a crosse wall of length about for= tie rods, reaching from that wall directlie crosse to the shore at the northerne cliffe, not far from the townes end. And this should make a perfect pent to conteine and reteine the water of the riuer, which (when the sluse standing in the crosse wall should be opened) might be of force to make and mainteine a depth for an entrance or hauens mouth for shipping to come into the rode, which lieth betwixt the maine sea and the pent.

In this worke there appeared great difficultie, and so much the more, in that (for the most part) the place where the wall should stand, was continuallie sur=

rounded, and also the sea did euerie tide ouerflow

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the same, and besides that annoiance, the crosse wall also must crosse the riuer, the course whereof could not be diuerted anie other waie but with extreme charge. The speciall cause whie this harborough was continuallie surrounded, euen at the low water. was for want of a depth at the hauens mouth, which might at an ebbe conueie thense into the sea (more speedilie and abundantlie) all those waters which remained vpon the face of the hauen. To the exe= cution hereof (I saie) the said Ferdinando Poins was appointed, and towards his charge therabouts there was first deliuered vnto him one thousand pounds, by force of a warrant sent by the commissi= oners for Douer hauen, to Thomas Smith of O= stinhanger esquire, farmer of hir maiesties cu= stomes inwards in the ports of London. Sandwich. Chichester, Southhampton, and Ipswich, with their creeks and members, and the creeke of Wood= bridge, being a member of the port of Yarmouth, who is neuerthelesse called by the name of Custo= mer Smith, because in times past his office was by letters patents to collect the said custome, and to yeeld account thereof, as other customers vsual= lie doo, having for his fee one hundred and three score pounds yearelie. Now for that he was so trustie and sufficient a person euerie waie, there was commit= ted vnto his charge the receipt of all such summes of monie as were due, either for the aforesaid tun= nage, or for the licence of free transportation of corne and beere, the which summes as need required, were by him to be deliuered to the treasuror for Do= uer harborough vpon the councels direction, and a warrant of six of the said commissioners hands.

There might be much written in the renowme and commendation of this man, for his great af= faires and aduentures, as also for other singular ver= tues: but for that he yet liueth, and is generallie knowne, it maie with modestie be deferred; yet thus much I haue said of him, for that he was a speciall fauorer and furtherer of these works, neuer making delaie of anie paiment appointed or required, but ra= ther disbursing great summes of monie out of his owne cofers to set forwards the same. After the re= ceipt of this thousand pounds, the said F. Poins had 200 more, as it appeareth in those accounts. Trulie, this Ferdinando Poins applied the works industriouslie, and performed some thing profitablie for the draining of the harborough, by making two groins, whereby there was a depth made at the ha= uens mouth. But as it is thought, his worke either was or might haue beene performed with lesse than halfe that monie: which if he had doone. I would more willinglie haue published his praises. By the premisses it maie appeare, that the life of the hauen consisteth in the pent, and consequentlie in the long wall and crosse wall, without the which no pent could be made, so as wals must be erected. But now the question grew to be how and whereof they should be framed which were to be wrought in the sea, vpon the sand or beach, through a riuer, &c: and the same wall to withstand the violence and rage of the sea at the one side, and to hold and reteine a mightie weight of fresh at the other, so as no water might soke through or vnder the same.

Maister True (as you haue heard) would haue made stone wals verie costlie, and without limitati= on of time. Maister Ferdinando Poins would haue raised them with ouze and beach shoueled and cast togither without anie more adoo. An other would haue made a coffin dam, wherof the cost would haue beene infinite. Pet and Baker, being skilfull ship= wrights, with certeine other coparteners, thought a woodden wall most conuenient; and presented to the

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Sir W. Win= ter sent to Do= uer to surueie the harbor, &c.

Sir Thomas Scot.

commissioners a module thereof, deuised and fra= med (for the most part) by one Andrew a carpentar, then seruant to the said Pet: which deuise maister William Burroughs, a verie expert seaman, excee= dinglie liked and commended. Maister True his deuise was rejected as impossible and intollerable. Maister Poins his workemanship was easie for a plaine man of the countrie to conceiue and per= forme: but verie few could be persuaded that his wall would be tight inough to make a pent, consi= sting onlie of slub and beach shoueled together, and lieng so hoouer: for that was his deuise. Neuerthe= lesse, sir William Winter (a man verie skilfull and of great experience in sea matters, being sent to Douer by the lords of hir maiesties priule councell, with maister William Burroughs and others, to surueie and confer about that hauen with the said commissioners) vnderstanding Ferdinando Poins had delt in the inning of Woolwich & Erith marshes, being also willing to doo him good, gaue fauourable eare vnto him, as to one that propounded an easie and a cheape platforme, and not much vnprobable in his opinion, whose desire was to haue it well per= formed, and with as small charge as might be, for that he was the greatest preferrer of that bill in the parlement house, and veelded the best reasons for a hauen to be there placed.

At this assemblie were proposed other sundrie mens deuises; namelie, of one Thomas Brooker gentleman, Iohn Stoneham carpentar, Bedwell, &c: and among the rest sir Thomas Scot, being a man carefull for the affaires of his countrie, and therewithall verie perspicuous, being wearied with manie fruitlesse conferences, delaies, strange and vntoward deuises, chargeable and vaine at=

Varietie of deuises. The wals of Romneie marsh subject to the raging seas.

All the com= missioners ioine with sir Thomas Scot, and al= low his deuise.

Seuen inuin= cible reasons against the woodden wall. tempts, and contrarie proceedings; and among o= ther things, having had great experience in Rom= neie marsh matters (the greatest businesse whereof consisteth in making and reparing of wals to de= fend the same marsh from the inuasion and inunda= tion of the sea) and dailie seeing the nature and ef= fects therof, weieng also in his mind, that Romneie marsh wals are of greater bulke and force than these need to be, for that they lie more open to the maine sea, and without comparison more subject to the weight and violent rage thereof: and further knowing that the marsh wals are placed not farre from thense vpon that coast, vpon a foundation in all respects like vnto the same, if not woorse (for some= times they build vpon a verie quicke sand, where one maie thrust downe a pole of a doozzen or twen= tie foot, and not find or feele the bottome) and after he had compared these workes together, perceiuing no impediment whie one rule should not direct two workes of one kind, he conferred with his neigh= bours of Romneie marsh therein, who allowed and confirmed his deuise, and afterward redilie atten= ded on him to Douer, there to approvue his opinion with their reasons and experience; and not so onelie, but also to vndertake and performe what soeuer he had set downe or promised in that behalfe. The resi= due of the commissioners (hearing and conceiuing sir Thomas Scots reasons, ioined and confirmed with experience not far fetcht, but ratified by neere neighbours, being persons of good account, which were expert from their childhood in the practise of those kind of works) inclined greatlie vnto his mo= tion; and the rather, for that they knew him to be such a one as would not seeke for priuat gaines. Howbeit, they which exhibited the woodden worke, could not well conceiue hereof, nor easilie consent herevnto. And no waie was thought by them more fit to preferre their owne worke, than to make some offer to doo it by great, which the lords of the coun=

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cell greatlie desired, as whereby they might vnder= stand the vttermost charge and time required for the accomplishing thereof. But the price of the woodden wall grew to be so large (for fiue thousand and fiue hundred pounds was the lowest rate of their de= mand for the long wall onelie) that it was much misliked. For first there was no likelihood or possibi= litie that the same should be set fast and vnmoueable wher the slub or sleech is fifteene foot deepe at the least. and the maine rocke immediatlie vnderneath it. Secondlie, if the same could be erected, yet it must in short time be so shaken by reason of the weight of the pent water on the one side at low water, and by the violence of the sea on the other side at the floud, that through the vnstedinesse thereof, it could not continue tight. Thirdlie, the nature of the sand and slub was thought to be so different from the conditi= on of woodden boords and planks, whereof this wall was to consist, that though there were no weight or wether that could impech the stedie standing thereof, yet there could be no such firme conjunction betwixt them, but that the verie weight of the wall it selfe

must needs cause the same to decline to one side or other, whereby water would draine betwixt, by rea= son of the thinnesse of the slub or sleech, which could minister no certeine staie therevnto, nor likelihood that the same should so vnite with the wood, as to stand stedie, and to make a perfect pent in that place: but to helpe that matter, they meant to haue sho= red and braced the said timber wall, in such sort as the same should haue staid the whole worke: yet no bracing could (as the best opinion was) have preuai= led to bring that wall to be good or stedie. Fourthlie. it was thought that such a wall so placed, would be subject to more than ordinarie decaie, by reason that anie woodworke lieng in water, especiallie when it is sometimes wet and sometimes drie, will in short time rot and disioint: so as if the same could be re= pared (whereof there was great doubt made) yet the reparations would be in respect of charge verie in= tollerable. Fiftlie, the delaie of time herein was al= so disliked, for two yeares being demanded for the accomplishing of that one wall, no time could be promised. Sixtlie, they being demanded whether they had euer seene (either on this side or beyond the seas) anie such wall or worke; they answered, No: but affirmed it to be in their opinions so probable, as they would aduenture to vndertake it for thirtie pounds the rod, but in what space to finish it they could not saie. Seuenthlie, there was required for the building of this wall 7000 tun of timber, which all Kent and Sussex (without vnrecouerable hurt in deprivation of their timber) was not able to yeeld: and the necessarie carriages for such a prouision could have beene by no meanes procured, without the vndooing of the inhabitants, and spoile of the countrie. These causes were of force inough to o= uerthrow a woodden wall. The deuise neuerthelesse deserved commendation.

These matters thus mentioned were after= wards debated before the lords of the councell, and these reasons with manie others were deliuered vn= to their lordships by maister Thomas Digs, the first elected surueior of the works, as from the commissio= ners. The credit of the parties, who were to vnder= take this woodden wall, and their reasons preuailed so much, as diuerse noble and wise men grew to con= ceiue good liking thereof. But the lord treasuror, whose voice and iudgement in all causes of impor= tance hath in all his time worthilie caried the swaie, allowed rather of the marsh works; saieng that if he erred therein, as not seeing but hearing the mat= ter in question, he would erre with discretion, as led by the reasons of the commissioners; who had

The lord trea= surors resolu= tion.

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seene and tried the experience of that kind of worke. Diuerse liked of Poins his worke, or at the least of his communication: partlie (as it is said) for the cheapnesse supposed, though in deed the contrarie fell out in demand: partlie for the expedition promi= sed, which could neuer haue beene performed: part= lie for that he was knowne to be a speciall executi= oner in Woolwich breaches, being workes defensa=

tiue against inuasion of waters, as yet vnaccom=

Of Woolwich and Erith breaches.

Secretarie Walsingham the chiefe di= rector and fur= therer of Do= uer hauen.

Maister se= cretaries let= ter to sir Tho= mas Scot.

No dealing by great, in matters of ex= cessiue charge and danger. plished, though no small charges haue beene therein imploied, for the recouerie of two thousand acres of excellent marsh land, lieng seuen miles from Lon= don, in the parishes of Plumsted, Erith, &c: lost by a breach made in the wals there with a tempest, about the yeare of our Lord one thousand fiue hundred and thirtie, to the vndooing of manie, but speciallie of sir Edward Boulton knight: partlie also he was hearkened vnto, for that he was reputed to be a good enginor; partlie for his experience in forren works, partlie for his resolutenesse: but especiallie for that he made a shew of more cunning than he would vt= ter; so as although his deuise for the erection of the wals was finallie rejected; yet was the matter brought to further conference. For he was com= mended to the lords of hir maiesties privie councell, and namelie to sir Francis Walsingham knight, principall secretarie to hir highnesse; to whome was happilie referred the consideration and chiefe direc= tion of all matters concerning these works; wherin he dealt from time to time, with as great care, tra= uell, and circumspection, as though his owne estate had depended vpon the well proceeding thereof. Whatsoeuer was thought necessarie to be doone thereabouts, was alwaies aduertised by the com= missioners vnto him, and his opinion and direction required, and he without good conference and pro= babilitie would enter into no action concerning this matter.

Now therefore he wrote to sir Thomas Scot, re= quiring him to send vp some sufficient person, ac= quainted & exercised in Romneie marsh works, to satisfie the lords of the councell in all such doubts as should be objected, speciallie by maister Burroughs, who had more liking of the shipwrights maner of worke, than either of the Romneie marsh works ex= hibited by sir Thomas Scot, or of Plumsted works propounded by Ferdinando Poins. Wherein sir Francis Walsingham shewed maister Digs his defense, & his owne good liking of the earthen wals; onelie requiring, that sir Thomas Scot would throughlie informe himselfe by conference with the marshmen, to answer certeine objections which he there inclosed, sent downe vnto him in writing, con= cerning the passage of the long wall, and the distance thereof from the shore, the higth and tightnes of the same, the conueniencie of the foundation, the man= ner of stuffe, the time of finishing, the breadth be= low and at the top, the vndertakers thereof, and of their assurance, &c: and lastlie, that some suffi= cient person should be sent vp. to confer in these mat= ters. All which points were so answered by sir Tho= mas Scot, as sir Francis Walsingham was greatlie satisfied thereby. Concerning the dooing thereof by great, sir Thomas Scots aduise was, that (seeing it was a princes charge) it might rather be performed by daie workers and good ouerseers, than by great; wherein no man would aduenture, in respect of the quantitie of the charge and diffi= cultie of the works, without certeintie of great gaines. Neuerthelesse, if it were so set downe by the lords of the priuie councell, that it should be doone no other waie but by great; he himselfe would vn=

dertake it better cheape than anie other had profe= red to doo it by fiue hundred marks, and to that effect

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would put in verie good and sufficient assurance. Presentlie after the receipt of those letters, sir Thomas Scot sent to the court a kinsman of his, named Reinold Scot, who had beene deputed a surueior of Romneie marsh by the space of foure veares togither; and Reinold Smith, who had beene clearke of Romneie marsh, and a continuall dealer about those wals by the space of thirtie years. These two repairing first to Douer, to consider of the earth, which should serue to make the wals of the pent of Douer hauen, and to search where such earth as would serve that turne might most convenient= lie and neerest hand be had, with pasture for horsses which should be imploied for carriage thereof, pro= ceeded to the court at Richmont, where they atten= ded on maister secretarie Walsingham on the mon= daie and tuesdaie before Easter daie 1583; and after conference had with him. they delivered vnto him certeine notes in writing from sir Thomas Scot, conteining necessarie orders, and recounting the charges, businesse, and offices, &c: incident to the erection of these walles, imitating as neere as time, place, and matter would give leave, the maner of Romneie marsh works: wherein he remembred or rather required a yeerelie assemblie of commissi= oners at Douer in Easter weeke, as is by the lords of Romneie marsh at Whitsuntide, with the election of officers, and set downe the dutie and charge of ech officer, the order of the works, what prouision of stuffe should be made, to wit, of timber, thorne, fag= gots, needels, keies, beetels, piles, pasture, earth, with totall sums of all officers fees, of all stuffe and prouision, of all the labourers, and of all the caria= ges: which estimat was little or nothing differing from the charge as it fell out, sauing that where he set it downe that both walles might be finished in two summers, he accomplished them in one guar= ter of a veere, beyond promise or expectation.

Maister secretarie Walsingham (hauing perused these notes, & seene the maner of the works & rates set downe therein) liked verie well thereof: how= be it, he strictlie examined the parties aforesaid, how those works could be performed at so low prices, and especiallie, how so manie courts could be prouided without commission, or griefe to the countrie, e= uerie court hauing a horsse and a driuer, and all for twelue pence a day, in a place where pastures are for the most part barren, and hard to be gotten: and both that and all other things, but especiallie vit= tels extreame deere. But being satisfied herein by the said Reinold Scot & Reinold Smith, he thought good neuerthelesse to send them two, accompanied with Thomas Digs esquier, and William Bur= roughs gentleman, to confer with sir William Winter, the said Ferdinando Poins, & the Plum= sted men, which were workemen in Woolwich and Erith breaches, who propounded to the said workemen certeine questions at the house of sir William Winter at Tower hill. Wherein they

Sir Thomas Scots notes

Douer pent finished in three moneths.

Reinold Scot and Rafe Smith exa= mined by mai= ster secretarie about the wals of the pent.

Questions propounded to Poins and the Plumsted men. were demanded amongst other things, whether they euer had heretofore made anie wals, whereby wa= ter hath beene pent to anie highth, and vpon what foundation or soile they were set, and of what sub= stance their wals were made, and whether they could remedie such wals if they leaked, or could worke in water: and finallie, what they would aske for a rod dooing, and what suerties they could put in for the tightnesse of their worke.

Ferdinando Poins and his Plumsted men answered verie comfortablie to euerie question, they seemed ignorant in nothing, and promised to performe whatsoeuer was required, sauing assu= rance. But they knew not the order of Romneie marsh works, neither could they possiblie haue ac=

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complished this: for they were onelie good dikers and hodmen, which arts were little pertinent herevnto. Maister secretarie being aduertised how Ferdinando Poins and his pioners of Plumsted shewed themselues in this conference, wherein nei= ther their owne disabilitie, nor the difficultie of: the worke by themselues was anie thing at all doubted of, thought it not amis to aduertise the residue of the lords of the councell thereof: so as if those works might in such wise be by anie thought possible to be performed, then might the marsh works with much more assurance be trusted vnto; and that did mai= ster Burroughs now verie well conceiue and note: neuerthelesse, it was thought expedient by their lordships, that Poins and his workemen should re= paire to Douer to a finall conference in those mat= ters; who perchance might be somewaie at the least imploied in those businesses. And therefore maister secretarie sent down to sir Thomas Scot, that their lordships had received the resolution he grew vnto, vpon conference with the marshmen of Romneie, touching the proceeding in the plot of Douer hauen, and had both well considered & allowed of the same; and that their lordships also had appointed, that on the tuesdaie after Easter weeke, master Burroughs and maister Poins, with certeine marshmen of Plumsted, should be sent downe to meet and con= fer further with him about the going forwards with the same plot at Douer: at which time such order might be taken and agreed on among the commis= sioners, for the making of all necessarie prouisions for the same, as should be thought most expedient.

Sir Thomas Scots deuise allowed by the lords of the councell.

The resolu= tion at a con= ference at Do= uer.

Officers elec= ted at Douer. On the ninth daie of Aprill next insuing, the par= ties aboue specified came to Douer accordinglie, where all the commissioners for that harborough met them, who hauing receiued letters from the lords of the councell to set downe a finall resolu= tion; after long debating of matters, agreed that Romneie marshmen should vndertake the worke; and for the better and more speedie proceeding there= in, the commissioners made election of all necessa= rie officers, and rated their wages in this sort. The treasuror, which was sir lames Hales knight, to haue for euerie fiftie pounds receiued and disbursed, six shillings eight pence, and for his clearke fiue pounds yearelie. Iohn Smith the expenditor twen= tie pounds yearelie, his clearke fiue pounds yeare= lie. The common clearke twentie marks, and each sworne man during his attendance eight pence a daie. The generall surueior (that is to saie) maister Digs esquier twentie marks yearelie, which he gaue to Alexander Mindge his deputie.

It was there also ordered, that the deputies sur= ueior, the expenditor, and clearke, should take pre= sent order for the inlarging of the waies for carri= ages to passe; for thorne, fagot, beetels, needels, keies, piles, bauin, and carriages for them, before Whit= suntide following. These things were committed to their charge; but they were afterwards eased by purueiors appointed for those and other purposes; they having more to doo otherwise than they could well ouercome. Having now discovered the first & second estate of Douer harborough, euerie mans deuise for the amending, or rather erecting of a new hauen in that place, with declaration of hir maie= sties bountie, and the care of the whole state iointlie and seuerallie in that behalfe: I am to make de= scription of the things performed, and of the man= ner of the execution thereof, in which thing consisted the difficultie, and (as some thought) the impossibili= tie of this enterprise.

First therefore you are to vnderstand, that be= fore a hauen could be there erected, there must be made a pent, to conteine abundance of water issu=

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The commo= ditie of the pent. ing from the land, which being let out at a sluse, should open & mainteine the hauens mouth: the vio= lence whereof should scowre it so, as neither beach, sand, nor slub might there remaine. The working of these wals in the sea and thorough the chanell, was the great thing to be brought to passe, as hath beene before said. The discouerie therefore of these workes will not be vnprofitable to posteritie, nor vnnecessarie for the time present. Herein I will o= mit all contentions & factions concerning these pro= ceedings, as also all iniurious practises against those works, whense soeuer they sprang: but I would glad= lie giue to euerie one his due commendation, which cannot be doone; because therein I should grow too long. I thought meet also to omit a controuersie ri= sing about the placing of the hauens mouth, excel= lentlie disputed betwixt persons of good acount.

The question was, whether were most conue= nient a more readie and speedie entrance in times of danger, when contrarie winds permitted no entrie or abode in anie harbourough, though this entrance were somewhat more shallow, whereby the greatest ships in those cases should be excluded: or a deeper hauens mouth in an other place more con= uenient for great ships, with a more calme ingresse, and a guieter rode, the hauens mouth somewhat more easterlie, and therefore not so good to enter in= to at a southwest wind, which distresseth men most in those seas: wherein (I saie) I forbeare to repeat the arguments of ech side, and the circumstance of that matter (being now decided and ouerruled) in such sort as I doo the works of the pent, the description whereof maie be profitable to all that shall haue to

Woolwich breach reco= uerable.

Euerie de= gree willing to set forward this worke.

Six hun= dred courts imploied at once in these works.

lohn Smith the expenditor.

lohn Keies gentleman chiefe pur= ueior. doo either in hauens or great water breaches. For both Plumsted & Erith marshes, or anie like brea= ches by this means doubtlesse maie easilie and most assuredlie be recouered. In the declaration hereof also, the parties which haue deserued commendation or consideration maie perhaps in some sort haue a kind of recompense: for other reward was not loo= ked after, or sought for by the best executioners here= of, sith the better sort imploied their trauell with great charges, the meaner sort their readie furthe= rance to their power, the poorer people their labor at a small rate to the preferring and performance of this worke; and all with such forwardnesse and wil= lingnes of mind, as the like hath not beene knowne or seene in this age: the beholding whereof would haue amazed anie man vnacquainted with Rome= neie marsh works, from whense the patterne hereof was fetcht, and the officers and chiefe workemen thereof brought by sir Thomas Scot to Douer. These works were digested and ordered by them, e= uen as a battell is marshalled by officers of the feeld. And trulie it was expedient that good direction should be vsed in this behalfe, for there were to be imploied fiue or six hundred courts about a wall of small bredth at one instant, none to be idle or hin= dered by an other, for the staie of one court a verie little space might be to the works an incredible hin= derance.

The nature and names of the offices and offi= cers herevnto perteining you haue alreadie heard. For as they were at the first set downe by sir Tho= mas Scot, so in all respects was it ordered and con= cluded in that behalfe; sauing that because these works were so great, and required such expedition, as the expenditor was ouercharged with busines, though an expert man trained vp in Romneie marsh in those affaires, trustie, diligent, and euerie waie sufficient: vnto whose office naturallie belong= ed the purueiance of all necessaries, anie waie ap= perteining to the mainteinance of the wals. There was appointed by the commissioners (as chiefe pur=

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ueior) a gentleman of good sufficiencie named lohn Keies, by whose countenance and discreet dealing men were brought to yeeld willinglie anie of their commodities towards the helpe and furtherance of these proceedings for their just values, which was du= lie answered vnto them, so as no man was seene to complaine of anie iniurie or hard dealing. But when the works, or rather the workers grew to be greater and more in number than was expected, (which came to passe by reason of the multitude of courts and workemen, who proffered their seruice so fast, as from the rate of two hundred, which was at the first set downe, they increased to six hundred) all pastures neere the towne being imploied that waie, manie men were content to make their owne pro= uision, conditionallie to be admitted into the works, insomuch as some hired pasture for their working horsses seuen or eight miles from Douer, and neuer= thelesse came to worke with the first, and continued the whole daie with them that wrought longest. For

A horsse, a court, and a driuer for twelue pence the daie.

The quantitie of one court or tumbrell.

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lien at his charge.

looked verie narrowlie, as also to the sufficiencie and diligence of euerie workeman and horse, so as vpon euerie default their wages was totted and defalked, or the offendors excluded from the works, or some times punished with stocks and other imprisonment.

in depth sixteene inches: wherevnto the expenditor

There were among this number certeine double courts, which had double wages; because they were furnished with two horsses in a court, being double in quantitie to the rest, and were speciallie imploied about the cariage of sleech, a more weightie mould than either the chalke or the earth. A single court conteined in length flue foot, in bredth two foot, and

they came at six of the clocke in the morning, and departed at six of the clocke at night, except extraor= dinarie causes in preuenting inconueniences of great and fowle tides caused them to worke longer. Diuerse brought thither courts from besides Maid= stone and Seuenocke, being thirtie or fortie miles from Douer; and in the end the officers were driuen to put backe and refuse such as made sute to bring courts into the works: and yet had they for their horsse, their court, and their driuer but onelie twelue pence a daie. Which because it seemeth incredible. I

thought good to discouer and vnfold to the reader

the certeintie thereof, and throughlie conceiue not onelie the possibilitie but also the reason of it. First therefore the time of yeare when that worke was to be doone must be considered, which was in= tended, and by proclamations in certeine market towns notified to haue had beginning the thirteenth of Maie (when in those parts barleie season is ended) and from that time till haruest or haieng time little is to be doone in husbandrie: and assoone as haruest should begin, their purpose was to leaue this worke vntill the yere following. So as in this meane time, that is to saie, from Aprill till haruest, the seruants, & speciallie the cattell of farmers are rather charge= able than anie waie gainefull vnto them, and there= fore at such a time to raise profit by them is double aduantage. Neuerthelesse, he that should make his best commoditie herein, was to looke circumspectlie into the matter, and then might he see that it was re= quisit to haue two courts: for one boie might driue them both, because whilest the one was driuen, the other was filled, & the same being vnloden or dischar= ged, he went for the other, leaving that to be filled. This filler was a labourer allowed to euerie man which had two courts, for whome the owner of the two courts had ten pence the daie: so as he had for his filler, his driuer, his two horsses, and his two courts two shillings and ten pence the daie, which amounteth to seuenteene shillings the weeke. He paied out of the same for the boord of his filler and driuer six shillings weekelie, and so had the owner of cleere weekelie gaine for his two seruants and two horsses nine shillings, which must all this while haue

in such sort, as he might be resolued and satisfied in

An entrance into this worke was made in the be= ginning of Maie, one thousand fiue hundred foure

The first en= trie into the works. score and three, in the fiue and twentith yeare of hir maiesties reigne, with six courts onelie at the crosse wall; & such was the towardlines thereof, as yeelded so great a brute & promise of good successe, that from that daie forward there were continuallie cariages brought (at the rate before set downe) beyond all expectation: in so much as by the 27 of lune, there were assembled in those works 542 courts, and al= most 1000 workemen. And truelie, there consisted so great difficultie in marshalling this multitude (for all were to worke at once, none might staie for other, or be impediment to others worke) as without the paterne of former experience the worke could hardlie haue beene performed.

Romneie marshmen cheefe direc= tors in the works.

A benefit to man & beast.

The stuffe or substance of the wals.

The disposing of the works.

Henrie Guil= ford esquier, capteine of Arcliffe ca= stell.

Heerein Richard Coast and William Norris iu= rats, and the aforenamed Reginald Smith clearke of Romneie marsh were cheefe directors, and as it were marshals, as having dailie experience in the like works. For in Romneie marsh there are euerie veare commonlie imploied at one time about ma= king or mending of some one wall 200 courts at the least, in each court for the most part being two oxen. for whome the owners hire feeding in the marsh, as they can agree with the landholders, and yet haue had hitherto for their court and driuer but ten pence the daie. And this togither with their manner of working would be woonderfull, famous, and much spoken of throughout England, if the continuance of so manie hundred yeares exercise thereof had not gualified the strangenesse and admiration of it. For here (though at Douer it could not be so, bicause they wrought altogither with horsbeasts) the mights feed= ing preuaileth so much ouer the daies working, that bullocks brought to those works leane and out of flesh, are returned from the works most commonlie in verie good plight.

The stuffe carried by these courts for the erection of the walles at Douer, was earth, being of a hase= lie mould, chalke and sleech, wherevnto the carriages were seuerallie imploid, the most number for earth. whereof the greatest part of the wall consisted; the second for chalke, which mingled and beaten togi= ther with the earth, did make the same more firme, and was placed in the midst of the wall; the smallest number for sleech, which serued for the out sides onlie. For the same being beaten with beetles to the sides of the wall, would by and by cleaue so fast and close therevnto, as thereby the wals were strengthened; and therevpon also the arming might be set much more firmelie than vpon anie other mould. This also preserued the wall from annoiance by rage of wa= ters, almost as well as if they were otherwise armed with thorne and faggot.

There was prouided neere to the castell called Arcliffe (whereof Henrie Guilford esquier, being one that tooke especiall care and paines in setting forward that businesse, was then capiteine) two a= cres and a halfe of ground for the prouision of earth for the walles: which ground was distant from the crosse wall about twentie score tailors yards, and for the same the owner had ten pounds, and the soile remaining to himselfe, which in short time will reco= uer to be as good as euer it was. At an other place also called Horsepoole sole, lieng behind S. lames his church, was more earth prouided, which was alto= gither imploied vpon the long wall, as being neerer therevnto. Hereof euerie court brought commonlie

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to the walles in one daie about twelue lodes. The chalke was had from diuerse places of the cliffes, somwhat neerer to the wals than the earth, and these brought about seauenteene or eighteene lode a daie. The sleech was for the most part had at the west part of the hauen in a place called Paradise. And to these seuerall sorts of stuffe were seuerall cariages appointed and disposed, as might most conuenientlie serue the turne, and as occasion serued; for somtimes more and sometimes lesse of each sort of mould was necessarilie imploied. Somtimes also the sleech was had close at the side of the wals, and therefore fewer cariages imploied that waie.

Now to make a perfect triall of the worke be= fore the daie limited that all the courts should come in, there was an experiment of great importance performed, which was the making of a baie head, & therby a pent to keepe the water in or out of a peece of the hauen called Little paradise, which place con= teineth about three acres and a halfe of ground in great depth, wherein there riseth manie springs. And in the place where this wall or baie head should be made, the ouze & sleech was twentie foot deepe at the least. Herin also was laid first a pinstocke, and after= wards a sluse of great charge, the streame whereof meeting with the course of the great sluse increaseth the force thereof to the benefit of the hauens mouth.

The begin= ning of the great works at Douer.

On the thirteenth daie of Maie, in the yeare of our saluation one thousand fiue hundred eightie and three, when the courts, which (by proclamations made one moneth before in diuerse market towns) were to come to begin the works, there were more of them prepared and readie furnished for the purpose than were expected. Howbeit, the same was brought to passe by the meanes of sir Thomas Scot and other of the commissioners, who brought both their owne and their neighbors carriages, persua= ding all whom they thought able and meet, to set for= ward, and giue incoragement to the execution of these works. But Romneie marshmen, and such as knew those works, were they indeed which onlie gaue light to others of the true & right maner of wor= king, and of the commoditie insuing hereby; & they in effect supplied those works, vntill the countrie did see which waie to saue themselues, and make profit thereof. But such was the multitude alreadie as= sembled, that (to auoid the difficultie and confusion of so manie courts working togither at the begin= ning, and to doo the better and greater seruice after= wards) the whole course was altered by sir Thomas Scot, by whome it was thought most meet to enter into the execution of both walles (to wit, the long wall and crosse wall) togither, & to diuide the courts into two parts: with whome the said Richard Bar= rie esquier lieutenant of Douer castell willinglie ioined, vndertaking the charge or ouersight of the long wall, as sir Thomas Scot did of the crosse

wall; and by that meanes all the workmen & courts did with much more conueniencie and speed accom= plish their worke.

Reasons for the difficultie of the crosse wall. The crosse wall was of more importance, and the difficultie to make it was greater than of the long wall, for manie respects. First, for that the crosse wall standeth neerer to the maine sea than the long wall, and by that meanes this worke more vio= lentlie impugned, and sooner interrupted than that of the long wall. Secondlie, they carried the crosse wall through the chanell (a thing verie strange and difficult) and so did they not the long wall. Thirdlie, the ouze and sleech was deeper vnder the crosse wall than vnder the long wall. Fourthlie, the crosse wall was to be made deeper or higher, and broder or wi= der than the long wall. Fiftlie, the tide was to hin= der this worke, by approching sooner, by rising high=

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er, and by more violent raging than it did at the o= ther. Sixtlie, the weight of the pent water was to lie altogither vpon this wall, and consequentlie the water would search thereinto more dangerouslie. Seuenthlie, in this wall there was a sluse to be laid, which without great circumspection would haue indangered the whole worke. Adde vnto these, that the crosse wall was more suddenlie vndertaken, & of more importance. For vnder fifteene thousand pounds none euer made offer to doo it before this time: for the first purpose was to begin with the long wall onlie, or rather a peece thereof, as a worke sufficient to be performed in one summer.

Now if the long wall was thought a worke so difficult, dangerous, costlie, and tedious, what may be thought of the crosse wall? Trulie, had not the o= ther commissioners beene comforted herein by sir Thomas Scot, the impossibilitie presupposed would haue discouraged and ouerthrowne the whole enter= prise. But he with good comfort and confidence en= tred vpon the crosse wall, and maister lieutenant on the long wall: insomuch as the one was called sir Thomas Scots wall, the other maister lieutenants wall. And certeinlie, they might well so be termed, in respect of the paines, care, and costs imploied vp= on them by those two gentlemen. Sir Thomas Scot dwelt twelue long Kentish miles from Do= uer, yet did he seldome faile to come from his house to the beginning of the worke euerie mondaie mor= ning while the walles were in hand; and from that daie vntill saturdaie in the euening, when he retur= ned home. He lightlie came first to the walles, and departed with the last: and it behooued him so to doo, in as much as by his meanes onelie this manner of worke was vndertaken, and all other deuises reiec= ted. He laie in one John Spritwels house, who kept an inne in Douer, called the Greihound, and there did he and his followers and seruants, togither with maister lieutenant and his companie receiue their diet at a deere hand. For although the castell stand within a quarter of a mile of the worke, and as neere to the towne; yet was the lieutenants industrie and charge such, as he or his seruants did neuer lightlie returne home from fiue of the clocke in the morning

This worke vndertaken and other re= iected by sir Thomas Scots means. Bowle a no= table good workman.

Commissioners.

Treasuror.

Two iurats called direc= tors.

Eight guiders

Eight vntin= gers. till after supper: but remained alwaies there with sir Thomas Scot, in continuall businesse & extreme charge, not onelie in respect of their owne table, but also in regard of strangers, who came to see them and the workes, whose charges they commonlie defraied. Besides that, they did (not seldome times) bestow rewards bountifullie vpon the poore workmen, who vpon sundrie occasions were driuen to worke longer than the rest, and with more diffi= cultie; for some at some times wrought in danger of life. & ofttimes in the waters vp to the wast or shoul= ders. And among the rest (to whome I could rather wish a liberall recompense than a due praise) there was in these workes a poore man named lohn Bowle, borne and brought vp in Romneie marsh, whose dexteritie of hand, fine and excellent inuenti= ons in executing difficult works, and whose willing mind and painfulnesse for his owne part, with fur= thering and incoraging of others, ought in some calling to haue beene honored, and in his poore estate should not be forgotten. As touching the residue of the commissioners, they for their parts (if they were in health) did almost dailie visit the works, with as great care for the good proceedings thereof as was possible.

Sir lames Hales was this yeare chosen by the generall voice and consent of the commissioners, and with the good allowance of the lords of the coun= cell, treasuror for the works (as sir Thomas Scot was the two yeares precedent) and did not onelie

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discharge the office and dutie thereof with commen= dation and just account, which amounted almost to fiue thousand pounds: but beside his often repaire at other times during the works, he did continue there by the space of one whole month, while sir Tho= mas Scot (by meanes of a sicknesse taken vpon the wals) was absent, and all that time kept a bounti= full table, and vsed great diligence, in continuall o= uersight and furtherance of the works, whereof Thomas Digs esquier was generall surueior com= mended thervnto by the lords of the councell, who al= though he made his chiefe abode then at London, yet did he often repaire to the works, and seriouslie bent himselfe to set forward the same there, being also a carefull sollicitor in that behalfe. Certeine of the iu= rats & chiefe magistrats of the towne, were by two at once dailie assigned to be directors and setters foorth of the carriages, and to see the courts well filled: these also did refuse their allowance, being eight pence the daie, and did neuerthelesse verie diligentlie attend vpon their charge: their names were John Watson, John Garret, William Wil= lis, Thomas Brodgat, &c.

There were eight men called guiders standing at eight seuerall stations, or places of most danger, to guide and helpe the driuers distressed or troubled with their cattell or courts, and to hasten them for= ward: for the default of one did make staie of the whole companie, and these had eight pence the daie. There attended also at the wals eight men called vntingers, to loose and vndoo the tackle of euerie Eight shel= uers.

Eight tin= gers.

Laborers.

Scauelmen. Beetlemen.

Armors.

The order of arming.

Inferior pur= ueiors.

Clerke. Expenditor.

The groine keeper.

The maner of the wall worke. court immediatlie before the vnloding or sheluing thereof, and were allowed eight pence the daie. Then were there eight sheluers, which pulled downe the courts as soone as they came to the place where it was needfull to vnlode, and these were chosen of the strongest and nimblest men, having ten pence the daie. There were also eight tingers, whose speciall office was to lift vp the courts immediatlie after they were vnloden, and to make fast their tackle; for the drivers hasted foorth without making anie staie. otherwise all the companie must haue tarried for them; these had eight pence the daie. The number of the laborers which were to shouell abrode and laie e= uen the earth, chalke, and sleech, as soone as it was vn= loden was vncerteine, they had six pence and eight pence the daie. A great manie marshmen were as= signed to laie the sleech vpon the sides of the wals, and were called scauelmen, and had twelue pence the daie. The number of beetlemen also were vncer= teine, who serued to beat or driue the sleech to the sides of the wals, and to breake the great stones of chalke laid on the wals: as also to levell the earth, and to worke it close together, having for their wages eight pence the daie. Manie marshmen also were appointed to arme the sides of the wals, after they were sleeched, & had twelue pence, and some sixteene pence the daie.

The order of arming was in this maner. First beginning at the foot of the wall, they laid downe a row of fagot, through euerie one of the which they driue a needle or stake about foure foot long, hauing an eie or hole at the great end. Then doo they edder it with thorne and other prouision for that purpose, and lastlie driue a keie or woodden wedge (being one foot and a halfe long) through the eie of the needle to keepe downe the edder, which staith downe the fagot. Also there was an inferiour purueior for fagot, thorne, needles, keies, &c: who for his horse & himselfe was allowed for euerie daie he trauelled two shillings. The clerke of the works, who kept all the reckonings of the expenditor (through whose hands all the monie passed) he at fiue a clocke in the morning, togither with the expenditor, called euerie one that wrought

### 1545a

that daie, and saw euerie court furnished, and recor= ded all this in his booke, and such as were absent, had no allowance that daie: if they came late, their wa= ges was totted at the expenditors good discretion. There was one luline appointed to attend vpon Poins his groins, he was a Dutchman, and more expert in those kind of water workes than Poins himselfe, his wages was first (I meane in Poins his time) two shillings a daie, afterwards (to wit) whilest these workes were in hand, and better hus= bandrie was vsed, he had but foure grotes a daie. And thus much touching the offices and officers du= ties.

Euerie court was most commonlie filled ouer night, and in the morning at six of the clocke they all approched orderlie to the place where the wall should be made. The first driuer for good consi= deration was chosen to be a sufficient and a dili= gent person, and that court to haue a good gelding: for as he lead the danse, so must they all follow. When the first court came nigh to the place where he should vnlode, one vntinged it, and the driuer pro= ceeded with his court, either into the ouze or water, or as neere therevnto as they could; and bringing his horsse about in his returne, when the taile of the court was turned to the water side, the sheluer plucked downe the lode, as far into the chanell as he could. The driver neuer staied, but went foorth for a new lode: the tinger runneth after and pulleth vp the court, and fasteneth the tackle, and goeth present= lie with speed to doo likewise to another; and so dooth the vntinger. When the whole course of courts (being about two hundred) were vnloden, the laborers with their shouels and beetels plied to make euen the wall against another course came.

Sometimes they wrought a whole daie or two, and laid downe manie thousand lodes of earth and chalke, and no increase seene at night of the worke, either in higth or length; in so much as manie suppo= sed that the earth was rather washed awaie than sunke. And in truth, some part thereof was car= ried awaie with the floud in a rough tide; for all the water in the hauen was manie times discoloured therewith; especiallie, vntill sir Thomas Scot tooke order, that before euerie floud, not onelie each side of the wall, but the end also should be armed with fagot; & in the morning or after noone (when returne was made to the works) the end where they were to proceed, should be vnarmed againe: which needed not be doone to the sides. for they carried the whole breadth of the wall with them. But in truth, the weight of the wall, with the continual passage ther= vpon, made the whole worke to sinke to the verie rocke; being from the top of the chanell sixteene foot, and from the face of the water at the floud, al= most as much more. But in the end, it was a woon= der to see how the multitude of carriages (being well plied) preuailed, euen ouer the floud: which though it rose exceeding fast, and was come to the verie brinke or vppermost lane of the wall, a new course of courts came from time to time and sup= plied the want; which if it should have staied a mi= nut longer, would have turned to great losse: for they could have wrought no longer that tide.

In this maner they proceeded, vntill there was made of the crosse wall about fiue and twentie rods, which they wrought alwaies (as they went) aboue the high water marke (otherwise it could neuer haue beene performed) and so they passed through the chanell or riuer, and caried the wall beyond the same three or foure rods, so as the backe water or chanell had no issue to passe downe into the sea; but as it rose aboue the flats, and ran awaie before the end of the wall; whense they continuallie droue it

### 1545b

The inconue= nience which would haue followed the diuerting of the riuer ano= ther waie. further and further by lengthening the same. How= be it, by this meanes they wrought alwaies in the water, which was verie discommodious. This riuer therefore manie men would haue had turned some other waie; otherwise it was thought, that this wall

How the wall was saued from being wasted. A sluse made for diuerse good purposes.

A difficult and dangerous worke.

could not have beene made, the turning whereof would haue beene diuerse waies inconuenient. First, for the extreame charge; secondlie, the hauens mouth would (for want heereof) haue soone beene swarued vp; thirdlie, Poins his worke, which cost one thousand & two hundred pounds, should haue bin hereby frustrated; fourthlie, the hauen (all that time) and all passage vnto Douer had beene vtterlie taken awaie, to the great hinderance and vndooing of the townsmen there. But sir Thomas Scot, who imploied his head and mind to seeke all aduantages for the setting forward of this worke, and had con= ceiued a perfect plot for the finishing of the same, caused a cut to be made in the wall, and a small sluse to be laid in the verie place where the chanell did first run, which serued (for the time) not onelie to giue naturall passage to the riuer, and to mainteine the hauens mouth: but as a bridge also for the courts to passe ouer the water, to the further end of the wall: which now by this meanes remained drie and free from water vntill the floud, to the great aduantage and commoditie of the worke.

This sluse was composed with two arches, in length sixtie foot (besides the splaies) at each end, in breadth eight foot, and in depth also eight foot, and the charge thereof amounted not to aboue one hundred marks. In truth, the laieng of this sluse was a verie dangerous and difficult peece of worke, and the executioners thereof worthie of commendation, for with great courage to doo their countrie seruice they aduentured their liues in more perill than I can well expresse. Manie were astonied to behold the dangerous case of the workemen, and diuerse depar= ted from the place as being loth to see the poore mens destruction. Wherein the said Reginald Smith, and the Romneie marshmen dealt with great dexteri= tie and courage; when all other almost had giuen it ouer, persisting in continual and extreame trauell thereabouts, by the space of two daies and one night without intermission.

After the cut was digged thorough the wall, the sluse was laid by peecemeale, at the direction of him and the foresaid Richard Coast, William Norris, and John Bowle, whose hands were as busie also as anie others in the dooing thereof. And as they were trauelling hereabouts, the weight of the wall it selfe, with the earth cast out of the trench therevnto, and the multitude of the beholders standing thereon, made a clift or crase therein, consisting of manie hundred lodes of earth, which declined towards the cut where they wrought to laie the sluse, and was re= die to fall vpon them all, so as they were faine to su= staine the side therof with shores which they supported cheefelie with their owne force. Which if they had not doone with great art & labour, by the space of diuerse hours together, the wall had fallen into the place where the sluse should have beene laid, to the destruc= tion of sundrie people, and to the discomfort of ma= nie belonging to the works. But these marshmen neuer gaue ouer, till euerie sticke thereof was laid, at what time ech man reioised that meant well to the works, and diuerse bestowed rewards vpon the workemen, and praise was giuen to God for his fa=

uour shewed in that behalfe.

This worke being thus performed, the courts (which during that time were altogither set to worke at maister lieutenants wall) did now diuide them= selues againe, and returne to worke as before at sir Thomas Scots wall, and at euerie side wrought

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Gods blessing and fauour shewed to the works of Do= uer.

Dangers happilie es= caped.

Boies plaie.

with singular diligence & great facilitie. And God so fauored those works, as there were not lost in all that summer by meanes of foule wether aboue three daies and a halfe, wherein either courts or laborers were put from their worke, and in all those busines not one person slaine, and yet almost in euerie acti= on belonging therevnto there was imminent dan= ger, as first you heard in the laieng of the sluse. And manie times in digging of chalke, they stood in the cliffe and vndermined it, so as sometimes an hundred lode fell downe at once from vnder their feet. and sometimes from aboue their heads; and yet through Gods goodnes, & their diligent care, all esca= ped without hurt: sauing two persons, vpon whom great chalke rocks & much abundance of earth did fall, and yet were recouered without losse of life or of lim. In the passage also of the courts, if (by chance) either man or boie had fallen downe amon= gest them (as sometimes some did) the hill was so steepe at some places, and the court was so swift, that there could be no staie made, but the courts must run ouer them, and yet no great harme hath happened that waie. And I my selfe haue seene a court loden with earth passe ouer the bellie or sto= mach of the driuer, and yet he not hurt at all therby. Manie courts also being vnloden (for expedition) were driuen at low waters through the chanell, within the pent, from maister lieutenants wall, whereby they gained more than halfe the waie: and so long as by anie possibilitie they might passe that waie, they were loth to go about. And when the flood came, the chanell did so suddenlie swell, as manie horsses with their courts and driuers which rode in them were ouertaken, or rather ouerwhelmed with water, and were forced to swim, with great hazard of life, though therat some tooke pleasure. For some= times the boies would strip themselues naked, and ride in that case in their courts through the chanell, being so high, as they were ducked ouer head and eares: but they knew their horsses would swim and carrie them through the streame, which mini= stred to some occasion of laughter and mirth. Fi= nallie, this summer, being in the yeare of our Lord one thousand fiue hundred eightie and three, was ve= rie hot and contagious. & the infection of the plaque that yeare more vniuersallie dispersed through En= gland than in manie yeares before, and that towne verie much subject therevnto, by means of through= fare and common passage, and had beene extremelie visited therewith not long before, so as the towne was abandoned of most men; yea of some of the in= habitants themselues for that cause: and yet God blessed so the works, as in this extraordinarie and populous assemblie, there was in no part of the towne anie death or infection either of townsmen

or workmen, which resorted thither from all the parts of England.

And one thing more in mine opinion is to be noted and commended herein, that is to saie, that in all this time, and among all these people, there was neuer anie tumult, fraie, nor falling out, to the dis= quieting or disturbance of the works, which by that means were the better applied, and with lesse inter= ruption. For they neuer ceased working the whole daie, sauing that at eleuen of the clocke before noone, as also at six of the clocke in the euening, there was a flag vsuallie held vp by the sargent of the towne. in the top of a tower, except the tide or extraordina= rie busines forced the officers to preuent the houre, or to make some small delaie & staie therof. And pre= sentlie vpon the signe giuen, there was a generall shout made by all the workers: and wheresoeuer a= nie court was at that instant either emptie or lo= den, there was it left, till one of the clocke after noone

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or six of the clocke in the morning, when they retur= ned to their businesse. But by the space of halfe an houre before the flag of libertie was hanged out, all the court driuers entered into a song, whereof al= though the dittie was barbarous, and the note ru= sticall, the matter of no moment, & all but a iest: yet is it not vnworthie of some briefe note of remem= brance; because the tune or rather the noise thereof was extraordinarie, and (being deliuered with the continuall voice of such a multitude) was verie strange. In this and some other respect, I will set downe their dittie, the words whereof were these:

\* Or six.

The flag of li= bertie.

A commenda= tion of them which wrought or had anie charge about Douer works.

Sir Thomas Scot fell sicke in Douer works. O Harrie hold vp thy hat, t'is eleuen \* a clocke, and a little, little, little, little past: My bow is broke, I would vnyoke, my foot is sore, I can worke no more.

This song was made and set in Romneie marsh, where their best making is making of wals and dikes, and their best setting is to set a needle or a stake in a hedge: howbeit this is a more ciuill call than the brutish call at the theatre for the comming awaie of the plaiers to the stage. I thinke there was neuer worke attempted with more desire, nor pro= ceeded in with more contentment, nor executed with greater trauell of workemen, or diligence of offi= cers, nor prouided for with more carefulnesse of commissioners, nor with truer accounts or duer paie, nor contriued with more circumspection of the deuisers and vndertakers of the worke, nor ended with more commendation or comfort: sauing that vpon the seuen & twentith of Julie, being S. James his daie, the verie daie when the crosse wall and the long wall met, and were ioined together, and in ef= fect finished (for both wals were brought aboue the high water marke, and nothing remained to be done of the same but highthening, which might be doone at anie time after) sir Thomas Scot the principall pil= ler of that worke fell sicke vpon the wals, and was conucied thense in a wagon to his house, where he remained six weeks, more likelie to die than to liue, whose ladie and wife (being a most vertuous and no=

The death of the ladie Scot.

The bredth, depth, length, and charge of the long and crosse wall, with the ar= ming, &c.

A necessarie remedie if water draine vnder the wall

Expedition necessarie and profitable. ble matrone, & a liuelie paterne of womanhood and sobrietie, the daughter of sir lohn Baker knight, and the mother of seuenteene children) vsed such dili= gent attendance and continuall care for hir hus= bands recouerie of helth, as thereby she brought hir selfe into so weake state of bodie, as being great with two children, she fell sicke; and after hir vn= timelie trauell, being deliuered of a sonne and a daughter, she ended hir mortall life.

This sicknesse of sir Thomas Scot, and that which fell out therevpon, was no small discomfiture to him and all his. And the workmen at Douer made such mone for his sicknesse, and also for his absence, that euerie street was replenished with sorrow and greefe; and the people would be comforted with nothing more, nor anie waie be better incouraged to worke lustilie, than to be told that sir Thomas Scot was well recouered, and would shortlie be amongst them againe. And in truth, they translated their barba= rous musicke into a sorrowfull song, and in steed of calling to Harrie for their dinner, they called to God for the good health and returne of their best freend sir Thomas Scot, and that with a generall and continuall outcrie, euen in their old accusto= med tune & time. But the courts proceeded in high= thening the wals, vntill they were raised about two foot higher than they were on S. lames his daie, when the wals met togither; so as the crosse wall is ninetie foot broad in the bottome, and about fiftie foot in the top. The long wall is seventie foot in the bot= tome, and almost fortie foot in the top, in so much as vpon either wall two courts may meet and passe, or turne without troubling ech other. The length of the

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crosse wall is fortie rods, the length of the long wall a hundred and twentie rods. The charge of these two wals, with the appurtenances, amounted to two thousand and seauen hundred pounds, as appeareth in the expenditors books. If there were anie issue or draining of water vnder the wals, it was soone stop= ped by the peise of the wall it selfe, which neuer left sinking till it came to the foundation of the rocke, except (by some ouersight of the workemen) some part thereof were set vpon the beach, which should by order haue beene first remooued, & in that case they benched it, digging a trench at the foot of that part of the wall, and filling the same with earth, they made it verie tight, and so might anie such place be perfe= cted and amended if need should require. But at this houre there leaketh not a drop of water vnder or through anie part of the wall that anie man maie perceiue or see: so as a full pent shrinketh not anie whit at all betwixt tide and tide, whereas the allow= ance of one foot leakage or fall at the least was requi= red of them, which exhibited the plot of the woodden wall, which being measured from the top or face of the high pent diminisheth almost one guarter there= of. And thus betwixt the first of Maie and midst of August, this pent, which was thought vnpossible to be doone in three yeares, was perfectlie finished in lesse than three months, and remaineth in so good and sure state, as the longer it standeth, the better and

## tighter it will be.

The state of the wals.

A sure triall latelie made of the good effect of the pent.

A gate of the sluse broken.

Edward Wootton es= quire ambas= sador into France.

The effect of the pent.

Of the sluse.

The lord Cobham re= maineth at Douer one whole mo= neth.

Sir Francis Walsingham principall freend to these works.

If neuer anie thing should be added herevnto, this pent (by reason of the abundance of water retei= ned therein, and issuing out of the sluse) would main= teine a good hauen in that place: for the violent course therof will alwaies open the hauens mouth, and make a fret there, euen downe to the rocke, al= though it be distant from the same threescore rods; in so much as at this instant there maie come in at quarter floud a barke of fortie or fiftie tun. and at full sea a ship of three hundred tun and vpwards. But when the two iuttie heads are once finished (which are now in hand) so as the hauens mouth be perfected, anie ship whatsoeuer maie enter in there= at, and remaine within that rode in good safetie. But as at manie other times heretofore there hath beene sure triall had of the good effects of this pent, so now in this last moneth of October one thousand fiue hundred fourescore and six, one gate of the sluse being by mischance broken, so as by the space of foure daies there could be no water reteined within the pent, to scowre the mouth of the hauen, the same was so choked and swarued vp with sand and beach in that space, as no bote could enter in, or passe out of the same: insomuch as Edward Wootton esquire, being then at Douer to passe thense in an ambas= sage from hir maiestie to the French king, was for= ced to send to Sandwich for a craier, to transport him to Calis, because no bote of Douer lieng with= in the rode could passe out at the hauens mouth. But assoone as the said gate of the sluse was repared, e= uen the next tide following, a vessell of three hundred tun might and did easilie passe in and out thereat. one pent of water had so scowred and depthened the same. Whereby it maie appeare, that neither the cost bestowed, nor the worke performed, hath beene vn= profitablie imploied, or vnnecessarilie vndertaken.

Now you shall vnderstand, that the small sluse which was first made and laied in the crosse wall in such sort, and for such purpose as hath beene declared, was taken vp after the said walles were finished, and a sluse of far greater charge was made by the a= foresaid Peter Pet, who vndertooke to doo it by great, and had for the same foure hundred pounds, the laieng whereof did cost two hundred pounds more at the least. This sluse conteineth in length

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fourescore foot, in bredth sixteene foot, in depth thir= teene, and hath in it two draw gates. It was one whole moneth in laieng, all which time the said lord Cobham made his abode there, and kept a most ho= norable and costlie table, furthering those works not onelie with his continual presence and counte= nance, but also with his good direction, and that not at starts, but from morning till night, and from daie to daie, vntill the full accomplishing thereof.

And in the meane time sir Francis Walsing= ham hir maiesties principall secretarie was not vn= carefull of this action, as being the man without whom nothing was doone, directing the course, and alwaie looking into the state thereof, and gaue conti= nuall life thervnto, by prouiding monie for it, where= Of the late works.

of when anie want approched, he neuer failed to see or rather to send a sure supplie. Since the finishing of these wals and sluses, there hath beene much worke and charge imploied about one of the iuttie heads, and beautifieng of the harborough, wherin one George Carie of Deuonshire esquire, and one lohn Hill an auditor, haue beene the principall directors. But because that worke remaineth as yet vnper= formed, the report thereof shall also remaine to be made by others that shall hereafter haue occasion to write of such affairs.

<The third and last volume of this new edition of Holinshed's 'Chronicles' had been completed by January 1587 (that date is given at the end of the booklet containing the index). But then, mysteriously, some portions of the book were removed, 74 leaves in all, and eight new leaves were printed to bridge the gaps. Only a few copies of the book survive entire; most copies have been (as the expression is) castrated. This contribution from Reginald (or Reinold) Scot was thought to be worth keeping, but did not go unscathed. The first two leaves (pages 1535–8) were discarded with the rest of quire 7I (pages 1527–38), and two new leaves were inserted in their place. I transcribe that portion of the text from an eighteenth-century replica of the original leaves; in case anyone wants to see the difference, I have made a separate file for these two replacement leaves. – C.F. November 2012, revised January 2013.>