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THE
COLUMBIAN

Rowland Vaughan

His Booke

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Published 1610

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Ellen Beatrice Wood, 1897

John Hodges
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TO THE
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“Whoever could make two ears of corn or two blades of grass to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together.”

—SWIFT.

The extreme quaintness and originality of Rowland Vaughan's little book have led me to republish it, in the hopes that what has charmed me in its diction, will not prove "caviar to the general." The spelling and punctuation I have scrupulously followed, but have omitted the old-fashioned lettering. The original binding was too costly for reproduction, so I have taken a suggestion from it, with a view to keeping up the character of the book.

I cannot write even a small half-page of introduction without acknowledging my indebtedness to Dr. Vevers, who, by kindly lending me his copy of the "Water-workes," halved my labours by enabling me to transcribe it at home; and to Mr. J. H. Parry of Harewood, from whose hospitable house I

pilgrimaged to see New Court and the Golden Valley, and who has done one or two pilgrimages since, in order to verify my information, or to dig deeper into the subject for me. To those two gentlemen the "hearty thanks of mee," who remain "theirs, as they have given mee cause,"

ELLEN BEATRICE WOOD.

MOLEWOOD HOUSE, HERTFORD,
November 1896.

INTRODUCTION

OF Rowland Vaughan, author of the following pamphlet, so little is known, except what he himself tells us, that an introductory sketch of even a few pages is a matter of some difficulty. The second son of Watkyn Vaughan of Bredwardyne, County Hereford, he was intended for Court life, his first-cousin, Rowland Vaughan of Porthamel (afterwards M.P. for Breconshire), being Groom of the Chambers to Queen Elizabeth, and his grand-aunt, Dame Blanche Parry, her great friend and chief Bedchamber-woman ; but, as he himself tells us, "his spirit was too tender to endure the bitterness" of Dame Blanche's "humor," and after some years spent in the greatness and glory of Court, he was "forced" by the same old relative's "careful, though crabbed, authority" into the Irish wars — probably

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those of Sir Henry Sidney against the O'Desmond.

Here he spent three or four years; but this time it was his body that was "too tender," and the standing waist (or, to use his own expression, "*twist*") deep in the bogs, combined with fasting and ill diet, sent him home invalided to Bredwardine.

That Bredwardine was a place of some pretensions, we learn from some seventeenth-century manuscript notes for a History of Herefordshire. First in a list headed "Where appeare any tokins of great old houses now done desolated" we find "Castells within the shire on the south side of Wye—the Castel of Bredwardine." Then in an account of the different parishes comes, "Bredwardine had a faire castel called the Castel of Grone, and another at the place called the Court of Vaughans, called also the Radnor; the first held by appearing at Brecknocke Castle gate on horseback completely armed with his speare, and there to wait all day on the day of It is now honoured with a family of the Vaughans, of the second house, whose ancestors by a match with one of the co-heirs of the Parrys had by her great

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revenues." This alludes to the marriage of Rowland's father, Watkyn, with Joan Parry, daughter of Henry Parry of New Court.

The manuscript goes on to state that in Bredwardine Church is an effigy of a knight in full armour, supposed to be "by tradition, and that probable," John de Bredwardyne, knighted by William the Conqueror.

Thus far goes the Harleian M.S. No. 6868. M.S. No. 6726, also Harleian, written in 1655, tells us a little more about Bredwardine. It states, "The dwelling-house, very fairly built by Roger Vaughan about the year 1639-1640, was an ancient and strong castle, retaining that title still. It was called anciently the Castel of Grone; the lands and tenements belonging to it is still called by the name of the Manor of Grone. Another Lordship in this parish, which is held by the suit and doome in the County Court, and belongs unto the Vaughans, is called the Court of Vaughans (belonging to another branch of Vaughans, viz., Sir George Vaughan), was sold to those Vaughans of Bredwardine about the year 1630. There is a small fortified hill, which was for the safeguard of the inhabitants against sudden invasion."

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In Rowland's day, then, the place was a "faire castell." The rebuilding of 1640 was not till after his death, Roger being his nephew, son to his elder brother Henry Vaughan of Moccas; but two years even in this "great old house" bored our hero to such an extent, that he would have gone off again to the wars, had not his fair kinswoman, Elizabeth Vaughan, intervened, and turned his thoughts towards matrimony.

Elizabeth was daughter of the abovenamed Rowland of Porthamel and Elizabeth Parry of New Court, co-heiress with her sister Joan, who married Rowland's father, Watkyn of Bredwardine, of the New Court estates.

The Parrys and Vaughans intermarried in each generation, and the cross-relationships are so puzzling, that I shall not attempt here to follow up the pedigree of either family, except to draw attention to the fact that they were both very proud of their kinship with David Gam, the hero of Agincourt, from whose daughter, "Gladis de Gam," sprang the Vaughans by her first marriage with Sir Roger Vaughan, who was killed at Agincourt, and the Pembrokes by a second marriage with Sir William Herbert, father by her of the first

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Earl of Pembroke. The Vaughans and Pembrokes fought side by side in many a fight, and the dedication of Rowland's book to the then Earl show that the feeling of kinship had survived the wear and tear of nearly two hundred years.

Rowland Vaughan of Porthamel and his wife, Elizabeth Parry, had two daughters (their son died unmarried in 1582), Elizabeth, who married our hero, and Katherine, who married Sir Robert Knollys, and so became daughter-in-law to dear old Sir Francis Knollys, whose wife, Katherine Carey, was Queen Elizabeth's first-cousin.

The fair and virtuous Elizabeth Vaughan was "a loving wife," according to her husband, but apparently one who would stand no nonsense. She soon put a stop to his roystering with old comrades, and bade him employ himself at home, by looking after her property, she "being seized of a mannor and overshott mill." The manor was New Court. An apparent disagreeable with the miller made Rowland wish to get rid of his responsibility, but madam overruled him, and he "obeyed her will, as many doe, and many miseries do ensue thereby." And so, "in the

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month of March," our Rowland ("with no desire, I protest, to fashion or forme husbandry") was wandering by the mill-stream, possibly whistling as he went for want of thought, or thinking regretfully of those boon companions, only now allowed to memory, when his wandering eye fell upon a small stream, or, as he would call it, a "*waterprill*," issuing from a molehill, and from this small beginning came his mighty scheme of irrigation. His difficulties were great. His neighbour, Rowland Parry of Moorhampton (whose son Stephen afterwards became our Rowland's son-in-law), readily gave him permission to make the necessary uses of his side of the river; but one of his tenants ("being very aged and simple") made such a to-do, that, after Rowland had vainly tried what he calls "*bugg words*," bribery had to be resorted to, with the result that the simple(?) rustic got a "meadow-plott" worth £40, instead of the three acres of old meadow-land, heavily laden with moss, rush, and cowslip, which his landlord so much coveted. Of the money spent we can form no estimate. Over one piece of trenching (which, the neighbours said, would cost a thousand marks) Rowland

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saved a £100 by his crafty way of setting to work. Elsewhere he mentions that a bad piece of work on the part of a vain-glorious carpenter cost him over £2000. But his book must have bitterly disappointed any one who tried to get real practical information on either of his subjects; his wandering mind flies off anywhere, wholly irrelevant anecdotes are begun and never finished, and real statistics are the last things he would condescend to work out for us. Still, he states that his demesne at New Court was let for £40 a year, and "is now worth £300"; that one meadow, for which he got £5 yearly, now yields £15 in hay and aftermath alone; that if at the end of four years' "drownings" your outlay of £500 has not made itself £2000 or £3000, "your choyce" (of land) "is bad, and luck worse." He offered a neighbour £15 a year for a hundred acres of arable (that being its rental) on a four years' agreement, at the end of which time Rowland was to have a twenty-one years' lease of it at £100 a year, all cost of putting up sluices, &c., to be Rowland's; but on the entering of the twenty-one years' lease the neighbour was to put down £300, which,

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as Rowland observes, he gets back in three years.

Though the hundred acres was "in the eye of his house," and must have been unsightly in its state of unculture, the neighbour refused the offer. "He offered nothing, and he hath *done nothing*," says Rowland, "therefore this is but an accusation for negligence, setting it forth in as friendly a manner as I may."

Further on we learn that three moles, suffered to live by a servant's carelessness, cost him £20 a year in damage to the "stankes," and there is an amusing little homily on the sin of ingratitude to these little creatures, who were the originators of all the vast system of irrigation; but though they are offered the run of his pleasaunce, burrowing in the "Stanke Royal" is high treason, and the moles are doomed, in spite of qualms of conscience.

Then, too, the saving of labour is slightly touched on, but these facts are scattered all about the book, and one can only guess that the cost must have been immense, though Rowland blames his neighbours for not following his example, in utter oblivion of the fact that they may not have had any capital to advance, as not to every one's share falls a

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wife seized of a "manner and a overshott mill."

And here I must note that a *mill* in those days was apparently a very choice possession, for Rowland thus comments on their owners : "The mill may be worth four or five pound ; but because he will win reputation to his demesnes on information on the marriage of his son that he hath such a mill, he would rather suffer muddy flouds in winter and clean water in summer to breake their limbs in his mill-wheels then exercise his wits (by drowning) to attain a world of wealth."

When or why Rowland first thought of the project which he calls his "common-wealth" does not appear, but it also must have been a gigantic work ; we gather it was begun after the completion of the water-works, as he says, "I have built my mill, and acquainted the water with his course ; *unto this mill* I add all offices," &c., &c. This commonwealth was a sort of community of tradesmen, who supplied each other with their specialties before offering them in open market ; a clerk fixed the rate at which the tanners was to supply the glovers, and the carders the spin-

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ners, &c. ; and justice seems to have been meted out with a steady hand. Great order was kept in the commonwealth ; a first offence was reprimanded, a second punished, the third entailed banishment from the precincts.

Rowland thus got a market for all his farm produce. He grew the sheep and kine which both fed and employed his glovers and weavers, the tanners got their bark from his forests, and he seems to have personally superintended everything. A great number of the operatives were housed on the premises ; and we read of their washing-places, their eating-hall, their hospital—indeed, of every convenience that human ingenuity of those days could dream of.

Two thousand “mechanicalls” had joined Rowland’s community by the time of his writing his book (1604), which was in those days a very much larger number proportionately to the population than it is now, especially in that remote corner of England or *Wales*, as Rowland repeatedly calls Herefordshire. These two thousand workmen daily assembled to food in the big hall at sound of trumpet ; but bodily food was not the only thing supplied for them by their energetic

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“protector.” He built them a chapel, attended by both preacher and curate, who got respectively £50 and £20 yearly—good stipends for those days—and almshouses for the sick and old. The priests must have been a great boon outside the commonwealth, for in all the Golden Valley, “which is seven miles long and one broad,” there was not one parish which could afford to maintain a priest, and a young “preacher” used to come over from Hereford every now and then, and preach so many sermons at so much a piece, charging very high, Rowland hints, on account of the fancied perils of the journey!

Other ministrations the people had none, except that of an old monk, survivor of the “great house of White Monks” (Abbey Dor), who is evidently in Rowland’s eyes a great deal worse than nobody; though I cannot decide whether a Papist or a Puritan was his chiefest aversion—probably the latter, the religion which did not allow oaths being quite unfit for any gentleman.

The poet, John Davies of Hereford, who lauds his kinsman with such fervour that only the knowledge that he was writing-master to Henry Prince of Wales, and a

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great celebrity in his own line (Fuller says his handwriting was so beautiful that one had to examine it under a magnifier to see if it were print or no), prevents one thinking that he was largely in Rowland's debt, says that "the Mechanicalls" all wore "scarlet capps," and filled their chapps and lapps from the forty dishes, which we learn were daily provided for them. This scarlet Rowland also alludes to, saying that if he did go again to Court he would be but a shabby figure, though smart in a sense, as wearing "scarlett of Builth, or Welch frize."

It was twenty years from the time of that walk, one day in March, before the account of the water-works was begun—and that apparently took about six years to write, as he notes events taking place as he writes in 1604, and the date of publication is 1610. That he dictated it is evident, from the words "take breath" written in by error on the part of the secretary at the close of a sentence.

While the "Water-works" were in progress old Dame Blanche died (in 1589). She left Rowland £100, a most handsome bequest in those times, and also £20 for the repair of the road between "Moat and Douro, and New

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Court and Moorhampton.” Douro sounds so suggestive of Spanish settlers that I must quote what my MS. says about it: “The vale of Straddel is that which we call the Golden Valley—*ystrad* in Welsh is valley—and we may believe this is the most ancient denomination of it, for *dyffrin dwr* being sounded among the Normands, they thought they had heard the word *d’or*, and so Englished it the Golden Valley, whereas the latter Welsh denomination signifies noe more than the Watry Valley.”

Thus my manuscript; but another legend has it that when the Saxon invaders pushed the Welsh back into “Welsh Wales,” they asked some captive the name of the little brook which runs purling through the valley, and were told *Dwr*, which means simply *water*, but which they caught up as *Dor*, and hereafter called the river “the Dor.” In later days the monks, moved either by the fairness of the landscape or the golden richness of the fields ripe for harvest, perpetrated a monkly jest, and called the valley *Valle d’Oro*, the Golden Valley, or the Valley of the Dor. However that may be, in Rowland’s time it was always called the Golden Valley,

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but the great ruined abbey at the mouth of it was known as Abbey Dor or *Douro*, and it is then between the abbey and Moat that the road was to be kept up. Immediately after the Reformation, John Scudamore, of Kent Church, had interposed to stop the work of desecration and spoliation of the abbey, and turned part of it into an Anglican place of worship, and I suppose it is to him alone we owe the partial preservation of it—all honour to his name!

From 1584 to 1600 Rowland was involved in one lawsuit after another. They are extremely dull lawsuits, their only interest being that they show what large possessions Rowland had acquired, either by inheritance, money-lending, or purchase. The suit in 1584 is against one Dame Anne Gresham, with regard to some property which Rowland owns by right of his wife, who inherited from her brother William, who died childless in 1582.

Then in 1596 is one against James Parry of Poston, who seeks to “redeem tithes within the townships of Poterchurch, Hynton, Taylorshope, Wilbroke, Leynalls, and Wylawstone, in the parish of Peterchurch, which he

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held in lease for years, and the park of Snodhill, his inheritance, which he mortgaged." Rowland had lent James Parry £20 on the security of the abovenamed tithes.

Then comes a Star-Chamber case, and then, crowning misfortune, one in the "Court of Wardes," which, as Rowland pathetically says, "Bredd more white haire in my head in one yeare then all my wetshod water-works in sixteene." This case lasted five years, and during its course Rowland went home to see to his "drownings" (sadly neglected, we hear, during his absence), leaving his "Wanton Warde," as he calls her, in charge of a Puritan tailor, and the next thing he hears is that his "Welsh niece," alias the Wanton Warde, has married the tailor's nephew.

Rowland's wrath knows no bounds; he has a stormy interview with the tailor, who declares his ignorance of the intrigue; but when Rowland wants him to swear on the cross of his shears, he refuses, it being against his principles to swear. It is not, however, against Rowland's, and black surmises about complicity are made, and our poor old squire loses all chance of the customary "tip" over *that* ward's marriage, and is not that enough

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of itself to “brede white hairs in a Brittaines beard?”

In 1594 Rowland's sister, “Lady Gattes,” died; and as her funeral certificate is rather quaint, I append it; it is from the collection at the College of Arms.

“Catherine, Lady Gattes, doughter to Watkyn Vaughan of Bredwardyn, in Com. Hereford, Esquire, had in her lyffe time three husbands, the first James Boyle of Hereford Towne, Esq., and by him had two doughters. Anne, 1^o doughter, and one of 2^o heirs of James, was marryed to James Tompkyns of Monnington, in Com. Hereford, Gent. Marye, second doughter, and one of 2^o heirs of James, was marryed to Howell Gywnne of Tre-castle, Com. , Esq.

“After, the aforenamed lady marryed her second husband, Sir Henry Gatte of Senne, in Com. Yorke, Knight, but had no yssue. Thirldye, and lastly, she marryed Robert Whytt of Aldershott, in Com. Southe, Esquire, but had no yssue. Thys lady departed this lyffe to the Lord the 15 November at Westmynster (in the gat house *erased*), and was buried in St. Margarettes Church there, the wone-and-twentyeth, of the moneth aforesaid, 1594.

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Chefe moorrner at her funerall the Lady Hawkyns, and there servyd Clarencieux, Kinge at Armes and Blew Mantle. In witnes whereof I have sett hereunto my hand the day and yere abowsaid."

In 1609 we find Rowland joining with his son John in the sale of the *manor* and lands of Wormebridge, in Turneston parish. This property Rowland had bought from Sir Christopher Hatton, who had received it as a grant from Queen Elizabeth. After one intermediate generation this property passed into the hands of the Clives of Styche (in Shropshire), who in 1800 bought out some descendants of the New Court Parrys, who still had Wormebridge place, and pulled down both houses, building in their stead their present seat of Whitfield.

The last page of Rowland's book contains a formal acknowledgment of a debt of forty shillings. Of the four copies to which I have had access, only three have the acknowledgment, and only one has any name filled in. The name has been carefully erased, not so carefully, however, but that we fancy we can decipher it as *William Powell, in the parish of Llywell*, in the county of Brecknock,

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the last word being quite clear. It runs thus :

“Be it known unto all men by these presents, that I, Rowland Vaughan of New Court, in the County of Hereford, Esquire, do acknowledge myselfe to owe and stand duly indebted unto _____, in the County of _____, the sum of 40 shillings of lawfull money of England, to be paid unto the said _____, his heirs, executors, or administrators, at the full end and determination of five years next ensuing the date thereof. To the which paiement will and truly to be made, I, the said Rowland Vaughan, doe binde mee, mine heires, executors, and administrators, firmly, by these presents. In witnesse thereof I have caused this Bill, thus in print, to bee made as my Deed, and have hereunto set my name the xxix of November, in the yeare of the raigne of our soveraigne Lord James, by the grace of God of England, France, and Ireland, King, defender of the Faith, the VII. and of Scotland the XLIII. 1609.

“By mee, Rowland Vaughan.”

One copy of the book, in the British Museum, has manuscript notes in a seven-

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teenth-century hand, calling attention to various statements, making Chaucer the author of the old saw, "Thou art an old doting fool," and stating that Rowland's promise of further explaining his use of the *levell* by a picture, or, as he calls it, a *mapp*, has not been fulfilled.

Gough, in his "*Typographica Brittanica*," mentions two *maps*, but I have only been able to reproduce one, from a photograph off an engraving in Duncombe's copy of the work, which engraving was discovered by Dr. Vevers of Hereford in 1883. It should be somewhere about the centre of the book; but I have, for various reasons, put it in the place of the missing frontispiece.

The two main ostensible reasons for the book, namely, the irrigation scheme, and the commonwealth or community of trades, do not by any means sum up Rowland's resources. He must have had great mechanical skill, as he used his water-power for all sorts of purposes, amongst others for turning his kitchen spits (at the factory, not at home), and sawing timber. He soon discovered the cheapness of water traffic, and built a boat to convey his farm produce from the White House to New

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Court, where the “Mechanicalls” had their headquarters; whilst his remarks on the breeding and rearing of calves, though they savour somewhat of the kindergarten system of education (teaching by playing), show that he took great heed to his stock as well as his crop. I cannot find if any of his neighbours followed his example; for, though my manuscript tells of the remains of trenches at *Moccas*, where his brother Henry lived, one can only conjecture that they might possibly have been for irrigation purposes, and I have searched in vain for any remark in the histories of Shropshire about that ill-judged attempt of *Maister Hoord*, of which Rowland speaks in his book.

The date of Rowland's death and his age are unknown. I can find neither will, inquisition, nor certificate; but on a beam in Peterchurch Church is the Vaughan coat-of-arms, quartered with that of Gams (?), with date 1612, the last figure somewhat doubtful, which I take to be a monument to the old man. The blazon of the Vaughan coat, which is reproduced on the title-page, is—Sable a chevron argent between three boys' heads affrontée, coupé at the shoulder proper,

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crined or, and about each neck a serpent entwined vert. This coat was adopted on account of the legend that Moredig Warwyn, one of their ancestors, was born with a snake round his neck. The Bredwardine Vaughans always bore the chevron, as appears in the visitation of Herefordshire of 1619, from which the York herald has copied this coat for me.

There is a legend that our Rowland is buried at West Ham, but there are no registers there prior to 1653, and there is no trace of a tomb; but I found the inquisition of a certain Rowland Vaughan, a city knight, who died in 1612, and I consider *he* was probably buried in the old church, not our Herefordshire Rowland; the fact that this city man had also a wife Elizabeth, and left no male heir, is quite enough to account for the story.

Elizabeth Vaughan re-married a certain Richard Leighton, and is buried at Vowchurch. The date on the tomb is 1640, but it is so rudely cut that it may have been added later, and be quite incorrect. The inscription runs thus: "I. H. S. Here lieth the body of Eliza Leighton, wife to Richard

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Leigh, and formerly married to Rowland Vaughan, Esquire, deceased."

Rowland had three children. One son, John, who died *sans* issue, I believe, before his father—he was alive and of age in 1609—and two daughters. *Jane*, who had New Court, married her kinsman, Stephen Parry of Moorhampton, who exchanged the combined properties for that of Arkeston, in the parish of Kingston, Co. Hereford. *Blanche* married Epiphany Haworth, and had the White House, where her father had always lived. This was occupied by descendants of hers till about fifty years ago, when it changed hands. Some chairs, which had belonged to Queen Elizabeth, and which she is said to have given to Henry Parry of New Court, Rowland's grandfather; and a portrait of a lady in Welsh dress, bearing inscription, "Blanche Parry, 1590," were bought at the sale by, and still belong to, Dr. Jenkins of the Copelands, Hereford. As to the original of the portrait, the greatest authorities disagree. It was long thought to be the celebrated lady of the Bedchamber, but as she died very old, and blind, in 1589, that is impossible. Mr. Parry of Harewood con-

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siders it to have been Blanche Haworth herself, though I cannot see why it should then be called Blanche *Parry*. I think it is of her sister's mother-in-law, who was Blanche Parry both as maid and wife, though I own I cannot account for its presence at the White House, unless Jane and Stephen did not care to move it with them to Arkeston.

Herefordshire is singularly unlucky in its county history. Duncombe, who was writing one to order, was not public-spirited enough to continue his work on the death of his patron; and though other hands have continued his work with the help of his notes, the Hundred of Webtree is altogether omitted, while the Hundred of Ewyas is very sketchily done, and contains no mention of Rowland or his works. That they were the sight and talk of the neighbourhood, is evident from the fact that open table was kept for visitors to the commonwealth, whose coming was notified by a watchman by beat of drum or blair of trumpet, according to the condition of the approaching guest, "whether he be horseman or footman."

In 1801 Mrs. Burton, the wife of the then vicar of Atcham, in Shropshire, and herself

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one of the Parry family, pilgrimaged to Bacton and New Court, and describes the latter place as being a dreary, ruinous farmhouse. It had once been moated, according to the custom of our ancestors. In two of the rooms, which seemed to have been bedrooms, were remains of carved oak wainscotting, and an old carved staircase betrayed evident traces of the splendours of past times. An upper room had been curiously painted, some of the figures yet remaining on the walls. The ceiling appeared to have been arched; the Gothic window remained to determine the architectural character of the old mansion. Mrs. Burton speaks with enthusiasm of a magnificent variegated oak, and describes the remains of the terraced gardens, with its ruined summer-house. The old farmhouse was replaced by a modern building shortly after this visit; and New Court and Moorhampton are now farmhouses of the most ordinary (I mean commonplace) description.

The absolute disappearance of all traces of Rowland's irrigation works, and of the great buildings necessary for the housing and employing of his community, can only be attributed to the civil wars, which raged

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with great fury in Herefordshire, a most obstinate stronghold of the Royalists. What side the Vaughan's took, I know not; the Parry's were stout Roundheads.

The fact, too, that Rowland's son-in-law exchanged properties with another branch of the Parrys, thus bringing New Court into the hands of those who had no personal interest in his experiments, may have begun the end which the civil wars undoubtedly finished; but we can have little doubt that 2000 "Mechanicalls" could not be allowed to spin and weave when stout men were wanted for the fight, and who knows but that these members of the "Common-wealth" were all the more acceptable from the discipline they had already gone through under our Rowland. I *must* hope that they helped the cause of the son of their "deare master," who is spoken of with such affectionate respect, and considered the embodiment of human virtues, not that of the Puritan, who would no more have sworn on the cross of his sword than would that "tailour," who behaved so "scurvily," upon his shears, and whose whole conduct would have filled Rowland with deep disgust.

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The absence of all outside accounts of Rowland's works make a more complete sketch of his life impossible, and our imagination alone can fill in the blanks. We must, then, fancy the old squire in his scarlet cape, riding-rod in hand, walking down the Golden Valley from the White House to New Court (some three miles) to overlook the raising of the sluices and the marshalling of his "Mechanicalls" to dinner, or, as one can well fancy, reading the Riot Act to the unruly, and intermeddling with kindly officiousness in the private matters of his people. Or in later days, too old now for the walk down and up the valley, dictating his "Long experienced Water-workes" to his admiring amanuensis, interrupted now and then by his masterful helpmate or his dearly loved children; and so slips the time away, till first the book and then the life draws to an end, and Rowland Vaughan sleeps with his fathers, and of him all that remains to us is this little pamphlet.

MOST APPROVED,

And

Long experienced WATER- WORKES.

Containing,

The manner of *Winter* and *Summer*-
drowning of *Meadow* and *Pasture*, by the advantage
of the least, *River*, *Brooke*, *Fount*, or *Water*-
prill adjacent ; there-by to make
those grounds (*especially if they*
be drye) more Fertile
Ten for One.

As also a demonstration of a *Project*,
for the great benefit of the *Common-wealth*
generally, but of *Hereford-shire*
especially.

*Judicium in melius perplexus cuncta referto,
Vera rei, donec sit manifesta fides.*

By ROWLAND VAUGHAN, Esquire.

Imprinted at London by GEORGE ELD.

1610.

A PANEGYRICKE,

In the deserved honor of this most profitable worke, and
no lesse renowned then much-desired Project.

I Sing of him that is as deere to mee
 As to the World; to whom both aye are bound;
 Then brieve, for Bond so long, I cannot be;
 Unlesse my Love were (like my Lines) too round.

Proportion doth so please *Witte*, *Will*, and *Sense*,
 That where it wants, it grieves *Sense*, *Will*, and *Witte*:
 Then by *Proportion* of his Excellence,
 Thus must we shape our praise of Him, and It.

When as the Earth all soild in sinne did lye,
Th' almighties long-provokt intraged-HAND
 Emptied *Heav'ns* Bottles, it to purifie;
 And made that (a) *FLUD* that mud to countermand.

So, for like crimes, of late, we plagu'd have bin
 With like (b) *O'reflowings*, washing all away
 That lay the Earth upon, or Earth within,
 Within the limitts where this *Deluge* lay!

(a) Noahs
 floud.
 (b) The
 Inundation
 caused by
 the boiling
 up of the
 sea in Mun-
 mouth and
 Glamorgan
 shire, the
 yeare 1607.

A PANEGYRICKE.

Which *Inundations* were for *Earth* unfit :
 But hee whose *Hand* and *Head* this *WORKE* compos'd,
 Shewes how to drowne the *Earth* to profit it :
 And beeing Ill, to make it Well-disposd.

Some with their *Lands*, doe oft so sinck them-selves,
 That they to it, and it to them yeeld nought,
 But, in the *Ocean* what doe yeeld the *Shelves*,
 Which when they see, they (a) flee, with pensive thought.

(a) Few Had-lands take pleasure to behold the lands they had.

But in His *Drownings*, He makes *Lands* arise,
 In *grace* and *goodnesse* to the highest pitch ;
 And *Meades*, and *Pastures* price he multiples ;
 So, while some lies, He rise doth in the (b) *Ditch*.

(b) Trenches, by which his workes are effected.

His royall *TRENCH* (that all the rest commands
 And holds the *Sperme* of *Herbage* by a *Spring*)
 Infuseth in the wombe of sterile *Lands*,
 The *Liquid seede* that makes them *Plenty* bring.

Here, two of the inferior *Elements*
 (Joyning in *Coïtu*) *Water* on the Leaze
 (Like *Sperme* most active in such complements)
 Begets the full-pancht Foison of *Increase* :

By equi- vocation it may bee taken for Infants as well as Barnes : Barne being the name of Infant in some places of England.

For, through *Earths* rifts into her hollow wombe,
 (Where *Nature* doth her Twynning-Issue frame)
 The water soakes, whereof doth kindly come
Full-(c)Barnes, to joy the *Lords* that hold the same :

A PANEGYRICKE.

For, as all Womens wombes do barren seeme,
That never had societie of Men;
So fertill Grounds we often barren deeme,
Whose Bowells, *Water* fills not now and then.

Then, *Earth* and *Water*, warmed with the *Sunne*,
Ingenders what doth make *Man-kinde* ingender:
For *Venus* quickly will to ruine runne,
If (a) *Ceres* and her *Bacchus* not defend her.

(a) *Sine*
Cerere &
Bacche,
friget Venus.

Then looke how much the Race of Man is worth,
So much is worth this Arte, maintaining it;
Then ô how deere is hee that brought it forth,
With *paine* and *cost* for *Man-kinds* benefit!

Though present *Times* (that oft ungratefull proove)
May under-valew both his Worke and Him;
Yet *After-times* will prize them Price above,
And hold them *Durt* that doe their glory dim.

For He by *Wisedome*, over-rules the *Fates*,
By Witt defeating passions of the *Ayre*;
When they against his well-fare nurse debates,
While fooles (ore-rul'd by each) die through dispaire.

(b) The
Sunne ex-
haling all
radicall
moysture
from thence
by the
wounds or
chaps which
are made
by summers
heate.

In dropping *Sommers*, that do marre the *Meads*,
His *Trenches* draine the *Raines* superfluous Almes;
And when *heate* wounds the *Earth* ((b) to death that bleeds)
Hee cures the chaps with richest *Water-balmes*.

A PANEGYRICKE.

So, when *Heav'n* (ceaselesse) weepes to see *Earths* sinne
 He can restraîne those Teares from hurting him ;
 Untill his Teares the *Heav'ns* to (a) joy do win,
 While other *Grounds* are torne, the life from limbe.

(a) The
 teares of
 sinners, are
 the wine of
 Angels.

And when the Earth growes Iron, for Hearts so growne,
 Hee can dissolve it straite (as Waxe it were ;)
 Mantling the Meadows in their *Summer-Gowne* ;
 So *joyes* in *hope*, while others *grieve* in *fear*.

(b) *Ars*
dominabitur
astris.

„ Thus wisemen (b) rule the *Starres*, as *Starres* doe fooles ;
 „ And each mans manners doe his *Fortunes* square ;
 „ Arte learnes to thrive in *Natures* practick *Schooles* ;
 „ And *Fortune* favours men of actions rare.

(c) Or cleare
 Mirrour.

Such one is this rare Subject of my *Rimes*,
 Who raignes by mirry motion, 'ore my *Spleene* ;
 Such is this (c) *Water-glasse*, wherein these *Times*
 Do see how to adorne their Meades in Greene.

(d) From the
 observation
 whereof, pro-
 ceeded the
 rest of his
 workes, as
 in this his
 booke more
 at large is
 expressed.

Hee from a *Mole-hill* (from whose hollow wombe
 Issu'd a (d) *Water-fount*) a Mount did reare ;
 A Mount of large *Revenues* thence did come ;
 So, a *Mole-hill* great with yong a Mountaine bare !

How many *Rivers*, *Founts*, and *Water-prills*,
 (Tendring their service to their Lords for Rent)
 Are nere imployde but in poore Water-mills,
 While the drye *Grounds* unto the *Bones* are brent.

A PANEGYRICKE.

To *Tantalus* I can resemble those
 That touch the water that they n'ere doe *taste*;
 And pine away, *Fruite* being at their Nose,
 So, in Aboundance, they to nought do waste.

The *Brookes* runne murmuring by their parched *Brincks*
 (Pure virgin *Nimphes*) and chide against the *Stancks*,
 When as their sweetest profer'd service stinkes,
 So coyly kisse the chapt-lippes of the Bankes.

And (weake as water) in their Beds do stretch
 (As t'were to yeeld their *Ghost* for such disgrace)
 Their Christall limbes unto the utmost Reach;
 And (a)shrinke from th'Armesthat (uselesse) them imbrace.

(a) In dry
 Summers the
 Rivers grow
 lowest.

When as the *Meads*, wherein their *Beds* do lye,
 Make towards them, and fall by lumps therein;
 Who (of the yellow *Jaundise* like to dye)
 Creepe to their (b) Beds, their love and health to winne.

(b) When the
 Bankes are
 chapt, they
 (cleaving)
 fall by mam-
 mocks into
 the River.

O *Landlords* see, O see great Lords of Land!
 These sencelesse creatures mov'd to eithers aid
 But for your helpe, who may their helpes command:
 Then well command, you shall be well obaid.

Helpe *Nature* in her Workes, that workes for you;
 And be not idle when you may do good:
 „*Paines* are but (c) *Sports* when earnest gaines insue:
 „*For, Sport*, in earnest, lies in *Livelihood*.

(c) Gains
 take away
 the thought
 of Paines.

The

A PANEGYRICKE.

The Golden-age is now return'd againe,
 Sith Gold's the God that all commands therein ;
 By Gold (next God) Kings conquer, rule and raign ;
 With Gold we may commute, or *grace* our *sinne*.

Briefly, by Him we may do what we will,
 Although we would do more then well we may :
 For He makes ill too good, and good too ill ;
 And more then God, the ill do him obay.

Then if ye would be eyther *Great* or *Good*,
 Or *Good* and *Great* (all which he (a) can you make)
 Take pleasure (ô) to save your *Livings* Bloud
 And streame it through their *Limbes*, for *Profits* sake.

(a) Wealth
 helps Vertue
 in her opera-
 tions; whose
 hands were
 else bound
 from overt
 action.

This *Esculapius* of diseased *Grounds*,
 (Casting their Water in his *Urinalls*)
 (His *Trenches*) sees what *Humor* ore-abounds,
 And cures them straight by *Drought* or *Water-falls*.

This little-great-great-little *Flash* of *Witt*.
 This *Soule* of Action, all compos'd of *Flame*,
 (Mounting by Action to high Benefit)
 Exalts his *State*, his *Countries*, and his *Fame*.

(b) All gaully
 & too dry
 grounds re-
 bell against
 nature, and
 mens profit.

He well deserves to be a Lord of Land,
 That ore (b) rebellious Lands, thus Lords it well :
 O that all Lords that can much Land command
 Would so command it, when it doth rebell.

A PANEGYRICKE.

But *Pleasure*, *Pompe*, and inter-larded *Ease*
Possesse great *Land-lords*; who, for rebell Groundes,
Do Racke their Rents, and idely live on these;
Or spoyle their Tenants Cropp with carelesse Houndes.

But this rare *Spirit*, (that hath nor *Flesh*, nor *Bone*,
But *Man* even in the *Abstract*) hunts for Wealth
With *Witt*, that runnes where *Profit* should be sowne
By wholesome *Paines*; so, reaps both Wealth, & Health.

Whether the Cost, or Time, which he hath spent
Be most, it's hard to say: for, twenty yeares
His Pounds, by thousands, he his Grounds hath lent,
Which payes now use, on use, as it appeares.

The Place wherein is fall'n His happy Lott
Hight *Golden-Valley*; and so justly held:
His Royall *TRENCH*, is as his melting Pott,
Whence issues *Liquid-gold* the *Vale* to gild!

O that I had a World of glorious wordes,
In golden Verse (with gold) to paint his praise,
I would blinde *Envies* Eyes, and make Land-lords
By this *Sunnes* rising; see their Sonnes to raise.

But ô! this is not all thou dost behight
Deere *Vaughan*, thy Deere-Country for her good;
For, thou resolv'st to raise that (a) benefit
Out of thy private care; and *Liv'lyhood*.

(a) The
Countries
good.

A PANEGYRICKE.

Thy many trades (too many to rehearse
That shall on thy *Foundation* stedfast stand)
Shall with their *Praiers*, still the *Heavens* pierce ;
And blesse their *Founders* rare *Head, Heart, and Hand!*

That publike *Table* which thou will erect
(Where forty every Meale shall freely feed)
Will be the *Cause* of this so good *Effect*
To plant both *Trades* and *Trafficke* there with speed.

There shall thy Jovialist *Mechanicalls*
Attend this *Table* all in *Scarlet* Cappes ;
(As if they were King *Arthures* Seneschals)
And, for their paines shall fill their *Chappes* and *Lapps*.

For, never since King *Arthurs* glorious dayes
(Whose radiant Knights did Ring his Table round)
Did ever any such a Table raise
As this, where *Viands* shall to all abound !

Nay *this*, shall that franke *Table* farre exceed
If we respect the good still done by each :
For, that fedde none but such as had no need ;
But this (like God) shall feed both poore and rich !

This *Table* then (that still shall beare thy *Name*
In *Hyrogliphicks* of the daintiest Cates)
As oft as it is spread shall spread thy Fame
Beyond the greatest conquering *Potentates!*

A PANEGYRICKE.

They spill with spite, what thou in pittie spend'st ;
They onely great, thou good, how ever small ;
Subversion they, *Erection* thou intend'st ;
They foes to most, but Thou a friend to all.

Thy vertuous care to have thy God ador'd
(Among thy *Paines* and *Pleasures*) all will blesse :
Thy *Pension* for a (a) Preacher of his Word,
Shewes thou seek'st Heaven, and earthly happinesse.

(a) Preacher
& Curate
for daily
service.

A *Chappell* and a *Curate* for the same
(The one maintain'd, the other built by Thee
For Gods Diurnall praise) shall make thy *Name*
In Rubricke of the *Saints* enrol'd to be.

Thine *Almes-house* for thy (b) haplesse *Mechanicks*
Shall blaze thy charity to After-ages ;
And longer last in Brests of men, then Bricks ;
Increasing still thy heavenly Masters Wages.

(b) Any way
mischanc't
in their
Bodies, so
that they
cannot work.

If holy *David* had great thanks from *Heav'n*
But for the Thought to make the (c) Arke an House ;
Then thanks of all, to Thee, should still be giv'n
Whose purpose is to all commodious.

(c) 2. Sam. 7.
2, 16.

O happy *Captaine* ! that hast past the Pikes
Of sharpest *Stormes*, still wounding *Soldiers* states,
To end thy Dayes in that which all men likes,
Joy, *Mirth*, and *Fellowship* which ends debates.

A PANEGYRICKE.

The *Drummes* and *Trumpets* (*Mars* his melodie)
That wonted were to call thy foes to fight,
Shall now but call a friendly Company
(For honest ends) to *feasting* and *delight*.

Glory of *Wales*, and luster of thy *name*,
That giv'st to both *sans* Parralel'd renowne,
Upon the *Poles* inscribed be thy *Fame*,
That it to *Worlds* unknowne may still be knowne.

That they may say a Nooke but of an *Isle*
That North-ward lies, doth yeeld a rarer Man,
Then larger Lands by many a Thousand Mile,
Who can do (a) Thus, and will do what He can.

(a) What is
before ex-
pressed.

But many *Monarches*, many *Worldes* have wonne,
Yet, with their *Winnings* have not wonne that praise
As this great-little *Lord of hearts* hath done,
For good-deedes done to These, and After-dayes.

Now *Envy* swell, and breake thy bitter'st *Gall*
With ceaselesse fretting at these sweete *Effects*,
Th' eternall good which he intends to all
His *Fame* (well fenc'd) above a Foile erects.

Liv'd He among the Pagans, they would make
His glorious (b) Mansion some auspicious *Starre* ;
And make their *Altars* fume still for his sake
As to a *God*, to whome still bound they are.

(b) Like
Mars,
Jupiter and
Saturne.

A PANEGYRICKE.

For, *Bacchus* but for planting, first, those (a) Plants
Whereby mens Wealth, and Witt are oft ore'throwne
Which wanton *Nature* rather craves, then wants,
They, as a God, with Gods do still enthrone.

(a) Vines.

But let us Christians, though not yeeld Him this,
Yet give him *Love* and *Honor* due t' a Man,
That makes men live (like Gods) in *Wealth*, and *Blisse*,
And heave his *Fame* to Heaven if we can.

Vaine *Hanno* taught his lesse vaine *Birds* to say
Hee was a God: and then he turn'd them loose
That they abroad might chaunt it still; but they
(So gon) with silence prov'd their God, a Goose.

Then, though no God he were, yet might He be
A right (b) God-keeper in the *Capitoll*:
They *Geese* (at most) and so (at least) was He;
Or, if ought lesse, his *God-head* was a Gull.

(b) Geese (by reason of their vigi-lancy) kept the Pagan-Gods in the Romaine Capitoll.

But what I say, none taught me but thy Worth;
Nor shall it (like those *Birds*) thy *Fame* betray:
But these my Lines shall then best sett thee forth
When thou art worse then Wormes, and lesse then Clay.

As well thy *Crest*, as *Coat* (ô wondrous thing!)
A Serpent is, about an *Infants* Necke:
Who was thine *Ancestor*, as *Bards* do sing,
So borne (alive) the *Fates* to counterchecke.

A PANEGYRICKE.

From him thou cam'st ; as one, in him preserv'd ;
(By way of Miracle) for this good end,
As, by thy skill, to have so well deserv'd
Of all the Kingdome, which it much will mend.

This praise (perhaps) which thy deserts exact,
By *Envy* will be thought poeticke skill,
Playing the Vice, but in a glozing Act,
And so wrong *Witte* to sooth an erring *will*.

But yet if Arte should leave true Arte unprais'd,
(The only Meed the *Time* all Arte affords)
What *Spirit* by Art, would then at all be raiz'd
(From this Worlds hel) if Art should want good words?

Then, be the mouth of *Envy* wide as Hell
Still open in thy spight, yet say I still
Thy praise exceeds, because thou dost excell
In these thy works, that worke Good out of (a) Ill.

(a) Good
Grasse out
of ill ground.

If I be lavish of good-words ; thou art
As lavish of the *good* which thou canst do :
Then, must thy praise be *greate-good*, like thine Arte,
That *goods* thy praisers, and dispraisers too.

In short (sith on thy praise I long have stood
Whereon my verses Feete do freely fall)
As thou dost worke by Flouds, so th' art a *Floud*
Of working, running to the Good of all.

A PANEGYRICKE.

For as the *Sunne* doth shine on good and bad ;
So doost thou (*Sunne of Use-full Science*) still :
Then, *Floud*, and *Sunne*, thou art the ground to glad,
And make it fruitfull to the good and ill.

But sith th' obscurest *Sparke* of thy bright (a) Tribe
Speakes thus of Thee, (thou small-great man of worth)
It may be thought I praise to thee ascribe
As part mine owne ; so falsely, set thee forth :

(a) De-
scended
from his
Ancestors.

But those, so thinking, when thy *Worth* they proove,
With mee, will thee both honor, praise and love.

Your poore kinsman,
and honorer of true vertue
in whome so-ever.

JOHN DAVIES
of Hereford.

In praise of this no lesse pleasant *then most profitable worke.*

LOe heere a worke ; a worke ? nay, more then so,
A worke of workes : for all it doth containe
Makes wealth by *Water*, over *Land* to floe,
Where-to workes runne, that reach to honest gaine.

Then, hast thou *Land* ? and *Water* there-with-all ?
A little *Land* and *Water* so may stand,
That *Land* shall rise by that small *Waters* fall
To high esteeme, and raise thee with that *Land*.

This is no Dreame ; or if a Dreame it bee,
It is a Golden one ; and shewes by It
That golden Worlds of wealth shall compasse thee
If, in this dreame, thou *act* this worke of Witte.
Then shalt thou (waking) see (for thine availe)
Thy Grasse all Golde as in the *Golden-Vale*.

John Strangwage.

In Libri Auctorem.

THe *Bee* is little, yet esteemed much,
(With no lesse cause) for Workes as sweete, as rare :
Who, but with Dewes, doe make their owners rich ;
And, but for others, worke with ceaslesse care.

Then here's a hony-*Bee*, that, but with Dewes,
(Exchequer'd in some Trench, as in a Hive)
Sowre grounds with *Milke* and *Hony* over-flowes,
Whereon both Hee and Others sweetly live.

Which, not so much for his owne good, he gets ;
(Though (like a *Bee*) at need, hee feedes thereon)
But to fill others too, with honyed Sweets ;
So, with a *Bee*, holds just comparison.
In this they differ ; *Bees* for this doe dye,
But Hee, for this shall live immortally.

Rob : Corbet.

In praise of this most profitable worke.

NO Plant can prosper if it water wants,
Nor Herbage flourish in a thirsty soile;
But give that Drinke; with water ply your Plants,
And both will yeeld you profit for your toyle.

Some Grounds yeeld Cellers, wherein Nature putts
Her choisest liquers to refresh the Mould;
There, Founts, and Channels, for their Streames, she cuts,
To cheere the Grounds where they their course do hold.

But Natures providence but little bootes,
Where water runnes at waste along the Land;
None giving drinke unto the thirsty Rootes,
Out of those Cellers, being hard at hand.

Then to the Common and the Private weale,
How deere is hee that doth this arte reveale?

Henry Fletcher.

To the worthy Author and his worke.

VAUGHAN, thou hast a Soule surmounting Soules,
In high Conceit, and Action ; whose bright fire
Mounts to the Spheare, that Gaine to Glory rowles,
Which Men still seeke, and Gods them-selves desire.

Who, for thy countries profit, doest not spare
Thy Paines, thy Meanes, thy Body, and thy Minde ;
Whose will is bent to make all well to fare
By honest labour, in a diverse kinde.

A Project heere thou hast (in pleasant phrase)
Objected to the worlds Desiring-eye,
That while some practise, some it doth amaze,
To see men mar'd, soone made againe thereby.
Then sith (like God) thou canst make Men of Clods,
We needs must ranke thee with the *Semy-gods*.

Richard Harries.

In praise of these most praise-worthy *Water-workes.*

BY *Fire-workes* many have exploited things
Past all beliefe, and made the World admire ;
Which *Element*, beeing on her flaming Wings,
So Active is, that all it strikes is Fire.

That comes to nought, that so is over-come :
But, these rich *Water-workes* worke leisurely
Most quick increase, in *Earths* most barren Wombe,
Which beares what One doth ten times sextuply.

Then who beleeves by *Fire* to finde that *Stone*
Projecting Gold, much erre in that their *Creede* ;
Sith it is *Earth*, that's kindly over-flowne,
That is the *Stone* (indeed) that does the *Deed* :
Then would'st thou make pure Gold? ore-flow thy land ;
So, shall thy *Soile* be turn'd to golden Sand.

Silvanus Davies.

In praise of this as pleasant as *profitable worke.*

WOuld'st have great *pleasure*? then take *paines* to read
This little *Tract*: which little *paines* will doe:
Look'st thou for *profit*? then, thou heere maist speed;
Where *pleasure* great brings forth great *profit* too.

Upon a *Subject* rude, as is the *Earth*,
Never was *Pleasure* so predominant:
Nor ne're so blithe was *profit* at her *birth*
As *here*, sith *here*, she is so puissant.

All famous *Writers* still directly shott
The *Shafts* of their *Indevours* at these *two*;
For hitting *these*, they *gaine* and *glory* gott;
The *gaine* of *Love*, and *Learnings* *glory* too.

Then *love* and *laud* him, who hath close compact
Pleasure and *profit* for thee in this *Tract*.

Tho: Rant.

In the praise of the *Author* and *his effectuall workes.*

DEere *Rowland*, let thine *Oliver* have leave,
Among thy *Lauders*, his short *Breath* to spend,
To helpe them so, to *Heav'n* thy *fame* to heave;
Whose *Workes* are *Meanes* t'an Earthly-heav'nly *End*:
Then, *Rowland*, take me with Thee *Here*, and *There*;
That *Rowland* still may have his *Oliver*.

Oliver Maynson.

In praise of the *Worke* *and Author.*

MY little *ROWLAND*, you may looke that I
(All things considered) *MUCH* should say of you:
Then, this your *WORKE* (to say that *MUCH* in
few)
Shall worke the *Workers* endlesse *Praise*: and why?
„A worldly *Witt*, with Heav'nly *Helpes* indow'd,
„Getts *Ground*, and *Glory* of the *Multitude*.

John Hoskins.

Once more for a Farewell.

In deserved praise of this never-too-
much praised Worke.

Good Wine doth need no Bush : (Lord ! who can tell
How oft this *old-said-Saw* hath prais'd new Bookes?)
But yet good *Water* (drawne from *Founts* and *Brookes*)
By *Sluce* (the *Signe*) makes dry *Groundes* drinke it well.

Men may have store of *Water*, and dry *Land* ;
Yet, if they draw it not through *Trenches* fitt,
(By *Sluce*, that shewes how (well) to utter it)
It idely runnes, while scarce the *Owners* stand.

Good *Water*, then by *Sluce*, through *Trench* must passe
For good *returne* ; that else runnes to no *end* ;
Which *Signe* doth draw it in, it selfe to spend
On dryest *Grounds*, that (drunken) cast up *Grasse* ;
Which giddy *Simily*, in sober *Sence*,
Shewes the *Effect* of this *Workes* excellence.

John Davies.

THE AUTHOR.

I Would not feare with *Cinick* Doggs to fight
Came they in *Front*: But, this will ill be borne;
Perhaps some Curre behind my Backe will bite:
But that's their *shame*, my *glory* it to scorne.

ROWLAND VAUGHAN.

TO
THE RIGHT HO-
NORABLE WIL-

LIAM EARLE OF PEMBROOKE
LORD HERBERT OF CARDIFFE, MAR-
mion and *S. Quintin*; Lord *Parre* of *Rosse*, and
Kendall; Lord Warden of the *Stanneries*:

Captaine of his Majesties Garrison-
towne of *Portsmouth*; and Knight of
the most Noble Order of the Garter;

My most honoured and re-
spected Lord.

MOST HONOURABLE,
and my Noblest Lord: I
have out of my lives ex-
perience, prepared a *Watry*
workemanshipp, which I
thinke the Gods forbad
the excellent creatures in

former times to handle; but I have per-
formed That, that hath begott a world

WATER-WORKES.

of worke in Me (which some men say will either impayre my witt, or hazard my estate (they said so in the execution of my water-workes (but they over-said them-selves, and the most part have given mee satisfaction by maine submission or reconciliation) I doubt not but the rest, in my mechanical undertakings, will doe the like, because some have subscribed, and many offer conditionall pertakings.

(a) Custome
is a great
Lord of
Command.

What blessing soever Invention doth raise, your Lordshipp knowes is subject to a hotch-potch of speach ; and untill it bee performed, Envy, Mallice, and all spitefull detraction follows ; so is it with me. But (my good Lord) seeing that (a) Lordly Custome wils that great Lordes should patronize Invention ; I doe most humbly beseech your Lordshipp (on my behalfe) so to doe ; you beeing (next unto my deare Sovereigne and His) heire apparant to my heart ; having intailed my dutifull services to the heirs male of your body ; and for want of such issue, to the heirs male of my Lord of Montgomery, for ever, without revocation ; these affections, proceed not (my honourable Lord) from any sinister respect ;

WATER-WORKES.

these following considerations be the cause: The remembrance of that worthy Prince your Father, and more worthy (if might be) your Grand-father, and great Grandsiers, from the battels of (a) Cressy, Poytiers, Egincourt, and Banbury, with many others before, and since. Where the many services of *mine* to *yours* hath bene such as Tradition will tell your Lordshipp, and I tell you with all, the abundant favours we found, makes mee thinke my selfe bound to your Lordship in recognisance of duty, and you tyed (by honourable and parrall covenants from them, to protect me and all my indevors, laboring for the good of the common-wealth, and your glory. Now, if I make it not appeare a most flourishing common-wealth; and such as never poore Subject in the Kingdome did raise, put me by with your hand, as unworthy of any favorable respect.

Your Lordshipp shall finde no *Monopole* required; but, this I require at your handes: In matters of common-wealth, *Expedition* is alwayes of the *Quorum*; It is one of the chiefest friends (my Lord) the Suter (except he be a wrangler) hath

(a) In these several battels, the Vaughans mine Ancestors followed yours.

WATER-WORKES.

in all the Kings courts : therefore I can require no lesse then that your Lordship command I may have convenient accesse, without restraynt to performe my common-wealthes desires, with these limitations and due observance, that I disturbe not your Lordships quiet, nor conferences, with honourable persons, & others of accompt : watching, & taking the advantage of Time, and Place ; a word at one time, and two at another. Thinke not (most Noble Lord) that I am eyther insolently saucy, or too bold. Your Lordshipp shall here-after understand the quality and condition of my undertakings will admit little delay ; I speake partly out of the complaint of an old servant of your Grandfather Pembrookes, my Uncle *Thomas Vaughan* : who was to take his tryall for his life at Kings-bench-Barre at tenne of the clocke in the morning, having forgotten my Lords remembrance to some good friend, prayed passe of the Groome of his chamber being *French* : who with hard wordes stopped his passage ; but he putting one of his Armes betwixt the *French-mans* twist, the other about his necke, threw him at my Lordes feete,

WATER-WORKES.

feete, and told his Lordshipp the cause was, he came for his life : My Lord hearing that, allowed this his coming with a vengeance, in respect of his necessity to prevent a mischief, and with patience priviledg'd the offence, beating the Groome for his ill respect : So good my Lord, make me free of your presence ; and command your principall Attendants (as Secretaries, but especially the Gentlemen of your Chamber, and Groomes) to take speciall notice, My comming is to doe you all honour. If I should attend Houres, Times and Seasons, I should bee in that case as if I weare to deale with your Lordship by Petition, & to purchase your speach with a price, so the memory of three hundred yeares dependancy should be trodden under foot as of no value.

As Lawyers not fedde every Tearme, breeds neglect of their Clients, with discontinuances and cessations ; so, your Lordshipp may handle the matter, and post me over by discontinuance, that you will forgett I have not done my duty this two yeares and more. But your greatest and dearest Servants

WATER-WORKES.

(a) Builth.

can witnesse my appearance : Though happily not furnished with such glittering Garments as might light my way to you : for, Scarlet of (a) Bilth (Welch frizes other name) hath now little grace amongst great ones : But the Hood makes not the Fryar, nor a brave Coate a brave man.

(b) The richest Country breeds the idlest (therefore the poorest) people.

Now be it knowne to your Lordship, and to all men (with the helpe of my Lord God, the Kings most excellent Majesty, and you my deare Lorde :) I purpose to raise a golden world (for commonwealth) in the *Golden-Vale* in Herefordshire (being the pride of al that County) bordering on *Wales*, joyning to *Ewyas Lacy* (from whence your Lordshipp is descended) being the richest : yet (for want of imployment) the plentifullest place (b) of poore in the Kingdome, yeelding two or three-hundred-folde : the number so increasing (Idlenesse having gotten the upper hand ;) if Trades bee not raised ; beggery will carry such reputation in my quarter of the country, as if it had the whole to halves. Therefore (my honorable Lord) put not onely your hands, but all your will and all your strength hereto,

30

praying

WATER-WORKES.

praying my Lord of *Moungomery* to assist your Lordship (if there bee cause). Let it be *Vaughans* supplication of *Beggars* unto his Royall Majestie, that they may have meanes to work, and so to live.

There bee within a mile and a halfe from my house every way, five hundred poore habitations; whose greatest meanes consist in spinning Flaxe, Hempe, and Hurdes. They dispose the seasons of the yeare in this manner: I will begin with May, June, and July, (three of the merriest months for beggars) which yeeld the best increase for their purpose, to raise multitudes: Whey, Curdes, Butter milke, and such belly-provision, abounding in the neighbourhood, serves their turne. As *Wountes* or *Moles*, hunt after wormes, the ground being delve-able: so, these Idelers live intollerable by other meanes, and neglect their painfull labours by oppressing the neighbourhood. August, September and October, with that permission which the Lord hath allowed the poorer sort to gather the Eares of corne, they do much harme. I have seene three hundred Leazers or Gleaners in one Gentlemans corne-field at once; his servants gather-

How the
poore of the
country dis-
pose of the
seasons of
the yeare.

WATER-WORKES.

The Beggers
good hus-
bandry of
my countrey.

ing & stouking the bound-sheaves, the sheaves lying on the ground like dead carcasses in an over-throwne battell, they following the spoyle not like souldiers (which scorne to rifle) but like theeves desirous to steale; so this army holdes pillaging Wheate, Rye, Barley, Pease and Oates: Oates, a graine which never grew in *Canaan*, nor *Ægypt*, and altogether out of the allowance of Leazing.

Under coulour of the last graine, Oates, it being the latest harvest, they doe, without mercy in hotte bloud steale, robbe Orchards, Gardens, Hop-yards and Crab-trees: so what with leazing and stealing, they doe poorely maintaine them-selves November, December, and almost all January, with some healps from the neighbourhood.

Thus your Lordship sees (before God and the world) the principall meanes of their maintenance. The last three moneths, February, March, and Aprill, little labour serves their turne: they hope by the heate of the Sunne, (seasoning them-selves like *Snakes* under headges) to recover the month of May with much poverty, long-fasting, and little-praying: and so make an end

WATER-WORKES.

of their yeares travell in the Easter holydayes.

There is not one amongst ten that hath five shillings to buy a Bale of Flaxe, but forc'd to borrow money to put up their trade, and runne to Hereford (loosing a dayesworke) to fetchethesame: Thisdone, they bee driven to buy halfe a bushell of corne three or foure miles off, and in their returne attend the grinding of it ; which if a better Customer come, they are sure to be served last. Withall, they spend one day with the Weaver, and after it is wove, before they can sell, they make many journeyes to markets, and honest mens houses: And thus many dayes are mispent in most miserable maner.

Now (my Honourable Lord) to helpe all these miseries ; I have, out of a yeares consideration, put a foote a Remedy which cannot well bee done, unlesse your Lordship doe promise to countenance my discovery ; if you do, Ile make your glory shine as farre above all other Subjects, as my *Plot* is hatefull to many envious persons.

My *Mill* is my first *Worke*, governed by a little Bastard-*Brooke*, fedde with

The meanes
to amend the
Countries
misery.

The first
worke is
the Mill.

WATER-WORKES.

eight living *Springs*, built with no desire to intertaine *Customers*, but onely to grinde mine owne corne.

In my first *Foundation*, the Countrey said I should never bee able to performe the same. They said with-all, I could not command the water ; and that I should want *custome* to countervaille the charge. I have built my Mill, and acquainted the water with his course. Unto this Mill, I build all *Offices* and necessary roomes serving my *Mechanicals*.

The use of
the dyning-
roome.

Officers.

Trades.

The *dining roome* to entertaine Knights and Gentlemen : *Buttry, Pantry, Kitchen, Larders, Pastry, Surveying-roome, Back-house, Brew-house, Sellors, Killning for Malt, Slaughter-house, Sellors* belonging to the *Slaughter-house, Uting-roomes, Garners, Malting-roomes. Officers*; the *Clarke, Miller, Loder, Malt-maker : Butcher, Chandler, Cookes, Bakers, Brewers, Tanner, Shoo-maker, Cobler, Glover, Currier, Sithe and Sickle-maker, Nayler, Smith, Joyner, Cooper, Carpenter, Gardiner, Mercer, Cutler, Barber, Stocking - knitters, Hosier, Lant-horne - maker, Fletcher, Bowyer, (hold-breath). The Taylor, Sempster, Launderers,*

WATER-WORKES.

derers, Wheeleer, Card-maker for Spinners, Hatter, Point-maker, Sheapheards, Hindes, Dairy-people, Swinheards ; two Vittelers, and a noyse of Musitions with the Greene-Dragon and Talbot.

If I mistake in marshalling my *Mechanicals*, your Lordshipp must understand I am no Herold : they be a disordered Company ; the offence not great to place one knave before an other. All which be appointed Attendants to maintaine and furnish (a) twenty broad *Loomes* for the finest cloth ; tenne narrow *Loomes* for courser *Wooll, Flax, Hemp, and Hurds*. Tenne *Fustian Loomes*, with such *Silk-loomes* as necessity shall require : A *Walker, Dier, Cottoner, Sher-men, Spinners, Carders, Sorters of wooll, pickers, and Quill-winders* ; which number will rise to some (b) two thousand and upward. For all which (except *Spinners and Carders*) I find convenient house-roume. They shall never loose an houres time to provide for such *meanes* as the *backe or belly* requires : *bread, beefe, mutton, butter and cheese* of mine owne provision, shall attend their appointed houres, without their trouble or losse of labor to any

(a) Twenty broad loomes imploide for fine cloth.

(b) Two thousand imploide in the under-businesse of the Commonwealth.

WATER-WORKES.

Market or other place, at the best rates of the Kingdome, unlesse it bee in the Mountaines, where *Owen Glindour* was shutt up: A place unfit for Trades. There, a *Crafts-man* may have twenty Eggs a penny, a good round *Bullocke* for two Markes, and other necessities rateably.

The Golden Valley is the Paradise of al the parts beyond Severn.

But I speake of the *Golden-Vale*, the *Lombardy* of *Herefordshire*, the *Garden* of the *Old Gallants* and *Paradice* of the back-side of the *Principallitie*. I protest, had I foure little Livings joyning to some I have, I would not change my poore estate to bee great Duke of *Muscovia*, where the flesh falles from the face in a frosty morning, like Lime from a Seeling soaked with Raine. But to prosecute mine argument, and that your Lordship shall not thinke I forget my selfe, I must let you know they shall neither Roste, Bake, nor Boyle: mine owne Range, Ovens, and Furnesse, shall ever doe them that service with-out their trouble or charge, with little losse unto mee. All Trades under my obeysance, shall bee at their election, whether they will buy their flesh Rawe, Roasted, Boyled,

WATER-WORKES.

or cold. No Trades-man shall rate his owne commodity, but the *Clarke, Recorder* of the company, (being of the *quorum*) shall say to the *Tanner*: you bought so many hundred Hides of my Maister, you may affoord a Dicker of Leather at such a price: and Shoo-maker, you, your shooes at such a price. You Glover, bought so many thousand Pelts; you may afforde your Gloves at such a rate. And so every *Artificer* shall bee limited to Marchandize each to other, at rates reasonable agreeing with their good gaine. But for all out and In-commers that will traffick with my *Mechanicals*, I leave them subject to their fortune. I will have but one of each trade: as a Tailor, with as many servants as his Tailorship thinks good: and the rest, as each *trade* requires. I hope (my Lord) I have told you comfortable newes: yet I will increase your comfort, with comfort upon comfort: and so comfortable, that all our company will turne their Songs, and Carrols, into singing of Psalmes and Himmes to the honour and praise of the living Lord, the Kings most excellent Majesty, and your Lordship. But before

The commerce of the Company.

But one of each Trade.

WATER-WORKES.

we shall bee able to sing in tune, you must be *Maister* of the Musick, and *Organist* with all.

Now I have made knowne unto your Lordship my morrall and *Mechanicall* mysteries, you see what preparation I have made for the body : If care be not had for the salvation of the soule, all my *buildings* and *foundations* bee shuttle and sandy. I am by the vertuous and honest Gentlemen, and others in my neighbourhood, importuned to raise a famous Preacher amongst them. Their importunity shall not need, I will desire onely their assistance with but a little more helpe then my owne ; your Lordships favour ever assisting us. The case stands thus. There came unto mee, a dozen yeares since, a yong Minister, having a good witte, a good memory, and a pritty dribble of learning : who made himselfe fitte to teach children. Hee was intertained like a Levite ; and had the liberty of a Levite ; but with-in short time hee became a counterfeit Puritane. Under coulour whereof he ingros'd halfe the good opinions of the Parish, to re-taile them to his profit and advantage,

A famous
preacher
shall be
maintained.

WATER-WORKES.

and though himselfe were presisely given, yet hee did little harme : I know not that hee hath reconcil'd any to that quick-silver-brain'd pure faction (as good hap is). I had ever a good hope, that hee would subscribe, and obey the *Cannons* and *Institutions* of our Church, as hee did.

A *Benefice* being voyde neere unto mee (in her late Majesties gift) an honorable *kinsman* of mine, gave mee the *presentation* for this *counterfeit*. Hee had *Institution* and *Induction* according to the common course : but (my honorable Lord), as every licquor serves not to coullor all coulors : so, every soyle fitts not every person. Hee had no sooner received the benefit of this *Benifice*, but the principall of his parishoners told mee I had planted a *Machivel* amongst them ; a cunning Pollitician, and an horrible usurer, making complaint to the *Bishop* thereof. But (my good Lord) because he had bin my servant, I praide the *Bishop* with patience to heare his defence, and for that time prevented the likely-hood of his disgrace. Where-upon I wrought with him to depart with that *thing*, and had

Three
speciall
vertues to
withstand
the Flesh,
the World,
and the
Devill.

WATER-WORKES.

agreed for his remoove, with a purpose (as the *Bishop* doth know) to plant a famous *Preacher* there, and told him all my intendiments: and to that end I most humbly praide the *Bishop* that it would please his Lordship, to give liberty to one of his Chaplins, a learned and vertuous man (*Maister Best*) to bee the man. That one living of his, not able to maintaine a preaching Minister, there was one other joyning thereunto, which wee purpose to unite: Having gotten the consent of the Lord Bishop, with promise of his best indeavour. But (my honorable Lord) here comes in the hindrer of the salvation of soules, this counterfeit Puritane, this Machivillian, this politician, & Usurer, by the gift of a friendlye *Patron*, hath as yet gone beyond the uniting of these Churches; and disapointed us of our Preaching-*Minister*, (as I learnt) by plaine symonie; and some treachery (withall) to his old Maister. There were not two Sermons in the *Golden-Vale* this 500. yeares, unlesse some Circumselion came by chance, untill my Lord his Grace, that now is, of Canterburie his coming to that See. Now, whether we deserve

Policy, in
wordly
businesses,
prevails
more then
Piety.

WATER-WORKES.

to have a Preaching Minister or no, we appeale to the World.

There was an old *Monke* uppon the dissolution of the Abbey of *Doier*, that was cast from thence, came unto the place where this Minister serves: Hee did expound without licence, deuide and sever the corps of the word, from the Spirit; so spoyling the Scripture with idle intentions, that at his end he left neither *Protestant*, *Puritane* nor *Papist*; but a few of the simpler sort, more inclined to *Masse* then to sound Religion. And of late, the late Canons do straightly appoint foure *Sermons*, yearly. In this manner (My Lord) this *Machi-vilian*, *Polititian*, and *Userer* having gotten two *Benifices*, thinks it sufficient with his eight-quarter *Sermons* in his two Churches, to cleare the infection which the old *Monke* bred: Hee not cunning ynough to dresse and cure the crazed of his flocke, hath onely judgement with his Hooke to catch and hold a sheepe; which by over-hard handling hee doth so bruize, that now they can by no meanes indure that all-catching-fast-holding Instrument.

WATER-WORKES.

(a) A most
unholy-holy
kind of
Usury.

And of late hath lent a young Preacher (being his prime practise) ten pound in money to make eight (a) quarter-sermons yearly : which *Preacher* venters his life sixteene-times over the great River of *Wye*, and as many more upp and downe a huge hill lying in his way ; the danger of the least of which is able so to distract a good Schollers memory, as to forgette a Sermon well pend, and no worse cond. I have wondred many times of the young *Preacher*, who did but learne to preach the other day, how hee was furnished with one in the fore-noone, and another in the after : Heerein shall I use your Lordshipps meanes, that wee may have this Userer removed. It must bee done ; and I thinke this to be the best means : Your Lordshipp may commend him to some strange Ambassadour out of *Asia* or *Africke* ; not in *Europe*, hee will learne the Language instantly : Hee is fit for any strange Religion. Hee will serve for an Intelligencer to execute any cunning Stratagem belonging to matters of State. When your Lordshipp hath understood the trunesse of all my intention (which happily you will runne over with

WATER-WORKES.

all expedition), like an old Priest (a) reading an Homily to taske, (which I wish not.) Then will you undo all the hopes I have, in with-standing the pride of many ill speakers.

If you doe not particularly examine, that you may bee able to defend, and report that wee build no *Monasteries*, nor succor *Seminaries*, nor much respect unpreaching *Ministers*.

Wee build our *Church* which is downe: A *Chappell* (b) for Prayer for all my *Mechanicals*: A famous Preacher to rectifie their hearts and shew them the way to Heaven: These, with an *Almes-house* (my Lord) to provide for the over-aged persons, lame, blinde and all such as necessity doth cause to for-beare their own gettings. Your Lordship doth see I am no *Papist*, nor *Puritane*, but a true *Protestant* according to the Kings Injunctions. And where the *Puritans* babble against one Minister to have two Livings, lett the *Superintendant* of them, with some other of their purified number, come to the *Hundred* I dwell in, (which, is *Weabtre*) I will shew them foure and twenty *parishes*; not any one of all able to

(a) Swift reading an enemy to like understanding.

(b) Chappell built, and a Curate maintained.

WATER-WORKES.

Twentyfour
Parishes in
Webtre hun-
dred, and not
one able to
maintaine a
Preaching
Minister.

maintain a Preaching *Minister*. If these be they whome they call *Puritans* that speake against a Preacher to have two or three Livings together in my *Hundred*; I wish I were a poore Burges of the honourable House of Parliament, then would I indeavor to diet them so for Livings, that I would make them fast *Extempore*, as well as pray, and preach as the Spirit prompts.

The most men now doe say, if I hadde money ynough, I might performe my undertakings. So (my Lord) if a man had money ynough (with the LORDS permission) Hee might build a Towre of *Babell*. I cannot see how mony can be wanting, I have so many honourable friendes; Lords Spirituall and Temporall, Bishoppe *Babington*, Bishopp *Benet*, and Bishoppe *Parrie*, grave and venerable Prelates of the Kingdome. Lords Temporall: Your Lordshippe, my Lord of *Montgomery*, with many other great Lordes (my Kinsmen) I meane not to trouble: Only my deare Lord the Lord cheefe Justice, and one Judge more, who is a Lord in Westminster Hall, I hope to see him a Lord to the last: And doe tell

WATER-WORKES.

your Lordshippe (betwixt you and mee
bee it spoken) Hee is one of the best
Lawyers in the Land; else very good
ones are deceived; and though hee bee
so, let him use what dilatory Plea hee
list to putte me off, I meane to putt his
Purse to the push of the pike: Hee said
hee would doe nothing therein: but, hee
sware not; or if hee had, I know hee
makes a difference betwixt Mee, and a
Rash oth. But to our purpose; Your
Lordshipp is now become *Generall* of
that *Army*; and I your *Lieutenant*; If any
muteny against our Common-wealth,
or speake (out of a hott brain'd humor)
that that they understand not: My Lord,
silence them with your *wisedome*, or defie
them with your power, which can never
bee better imploid in worldly respects,
then for the protection of a Common-
good. Though all the world should say
I should want money in my first *beginnings*,
yet I thanke God they cannot say I want
honorable friends, such as the Lord
Bishops, your Lordships with others;
which may lend me money (if please
you and them) I wil not for a million
anger any of you, to make a motion to
borrow

WATER-WORKES.

Beginning
is halfe the
whole.

borrow money : if lendings come in out of your honourable dispositions, I would I might never put upp my Trades, if I refuse any for a yeare, two or three. Its a better course (tenne to one) then to take money to usury ; knowing what I know : and I know as much (perhaps) that way as any poore Gentleman in *Wales* (without vaine glory bee it spoken). First (my Lord) hee that will take money uppon usury, must deale with the Scrivener in Dialogue manner ; thus for example : Sir, have you any money ? What is your name (saith the Scrivener). Sir *Brute Bankcrout* Knight, late of *Hadland* in the County of *Cumberland*. Who bee your sureties ? Sir *Alexander Allspent*, and Sir *Lancelot Little-left*. I know them well ; worshipfull Gentlemen : But I tell you (Sir *Brute*) you must finde *Cittizens* : The Scrivener (withall) rounds the *Knight* in the eare, saying, *The World is dangerous and full of iniquity*, but if your worship can procure such and such Townes-men, you shall commaund my paines from sixe to sixe months. Now it may bee Sir *Brute*, with Sir *Alexander*, and Sir *Lancelot*, may spend

46

sixe

WATER-WORKES.

sixe times sixe dayes (unlesse they meet with a deare friend to furnish them after twenty in the hundred) before their turne bee served. Once (my Lord) I thought to borrowe a hundred pound at a Pinch, but the Gentlman that ow'd the money would not traffick with me because I dwelt beyond *Severn*. A foule indignity to your Lordshipps *Havings*, having such royal Livings in *Monmouth* and *Glamorganshire*. I beseech your Lordship order may be taken that we may be as free of the Userers Courts of Requests as other Shires be; we are out of the principallity, and the Kings Subjects: then to bee barred from those Benefits & Immunities which the Law doth alow, were lawlesse and unreasonable. Our Shire is a Shire-royall; and we pay as royally for our usury as if we dealt with (a) Jewes, the cursedst *Generation* of all *Adams* children. Another time I dealt for a hundred pound with an Userer *Hold-borne-ward*; and having neglected my *Houre*, his Wives *Sheet-travell* with him by night, gave (O course fortune) my dayes labour the *Canvase*: & driven to become suter to her mighti-

(a) Userers
are Jewes by
their trade.

WATER-WORKES.

(a) Counter
in the
Poultry.

nes (great Princesse of darknes) so what by meanes of som ells of *Lawn*, a *Sugar loafe* and a paire of *Silke Stockes* (wooden ones being much more meete) I was beholden to neither of them, thankes be to my meanes: But missing my day, with this *consideration taken* he set *Sentinell* two Sergeants, on the height of the *Hill* neare *Paules*; I shall never forget the fashion of their *faces*, two Orange-tawny beards in a bloody field (Gules, my Lord:) they walked as if they would have overwalked me; but having gotten my broadside they said stand. I had the *word* ready, *at whose sute?* (thinking I had bin in the wars and they *Sentinells* to give passe) they brought me to a (a) *Garrison* neare the Exchange garded with a number of *Varletiers*. God knew my heart when I saw all Halberds, and no Muskets, for then I thought the dispatch in mine execution would be the slower; howbeit, I did with as much speed as I could, ransome my selfe: I speake not as if it tended to provoke any of your Lordships to pittie me; but to lesson such young Gentlemen as (at careles liberty) serves under your Lordships coulors that they accept of no office under

WATER-WORKES.

the Userers or Brokers cheek: your Lordship shall have many of the Nobility (out of their honorable zeale to publike profit) commend my *Common-wealth*, yet if any of them (like *Puritans*) turn with zeale to lend me money to so good a purpose, the heavens fore-fend that I should quench it; no, it is good to bee zealous in a good matter.

Thus having tyred your Lordships attention I thought to have made an end; but my love to you exceeding the ordinary love of men, drawes me on to trouble you further for your (a) ease.

Once I heard your Fathers name (beeing my Lord and Maister) ill spoken off by a world of people, and two other great Earles, three Knights, and divers Gentlemen, ill spoken off by the inhabitants from Tentarne to Courtydee, on both sides *Wye* threescore miles a head; I beeing a Servant, the Cause stood so strong with the Country, I could by no meanes devise how to make a quarrel to defend my Lords Honour. I little thought I should have beene in place to have heard so many ill speakers, and so few defenders, against so many honourable

(a) Strange
Paradoxe yet
true if a
mans in-
crease of
estate tends
to his ease.

WATER-WORKES.

able persons and others of account and durst doe nothing.

I praid to heare their grievances: They said time out of minde as appeared by their records (kept in the Castell of the *Hay* burnt by one Owen Glindwr) the River of *Wye* (their free and Mother River) was (in the troublesome times betweene the houses of Yorke and Lancaster) so weared and fortified as if the Salmons therein (on paine of imprisonment) had beene forbidden their usual walkes; and on paine of death (as in case of high treason) not to trade with any of the Earle of Marches men.

The humble request of foure or five *shires* will be that your Honors (with the rest) will take pittie on a whole country, groning under the burthen of intollerable Weares, which (for private) are the very Dammes and Letts of *Publicke profit*. Your three houses with one Lords more having more interest in those shires (under his Majestie) then all other Landlords.

The Counties reliefe rests almost in your Lordships hands; the duty you owe my Lord of Shrewsbury, and his deare

WATER-WORKES.

respects of your commands that *Weare* My Brother and myselfe being Commissioners in a commission of *Shewres*, not daring to do our duties without my Lord your Fathers privity (hee having one *Weare* on the River, being *Lord President* of Wales and our *Lord* and *Master*) wee acquainted him with the Commission and upon my salutation (I protest) he commanded us that his *Weare* should bee puld downe, if it appeared profitable to the Country. That noble Earle of Worcester with his honorable and vertuous sonne the Lord Harbart, how their *weares* will be dispensed with-all in these daies all the shires will referre unto their honorable dispositions. For Sir *Edward Winter*; there is nothing I take it but true honor in him. My acquaintance with him is but small; yet if I bee not much deceived hee respects more the *common-good*, then his own private; although (indeed) hee was (to say the truth) upon the last Commission a commissioner very bitter against the *Weares* over-throw. I saw the reasons thereof, and did allowe of his unreasonable prosecution. Hee showed much witte therein,

Pacience
perforce.

WATER-WORKES.

A good offer
of a good
heart.

and did us more harme then all the rest: God forgive him, and make him as firme to the over-throwers of *Weares* as he is faste to their *upholders*. Sir John Scudamore hath always beene the comfort of the country: Nurse to the Infancie of many young Gentlemen bred therein, and Cherisher of the rest that were not adverse. Hee hath ever said, if there were any hope that the over-throwe of the *Weares* would make the River (Wye) Navigable, Portable or Sammonable, hee would pull downe his first, to give an instance to others.

I beseech your Lordshipp, beare witness, I say nothing of Sir Roger Bodenhams Weare; nor of none of the *Weares* above Hereford Bridge. But this I say, its a pitifull thing that any of your Lordshippes *Weares* with the rest, (built like *Babell* threatning the skies with their eminence) should hinder the Salmon-fishing, which gave that sustenance to five or sixe shires, as many thousands, were a thousand times better sustained and comforted then now they are, or can bee.

All that can be said, why the *River*
52 cannot

WATER-WORKES.

cannot bee made Port-able, is ; *Some Fords when they are at the lowest will want water.* A poore and needy speech ! As if there were not *meanes* enough to *chanell* such *shallows*, in Summer they being at the smallest, and peaceablest time to bee wrought.

Goodmy LORD, down with the *Weares*, let us have *Wine* with our *Venison*, the carriage of it from London by land, makes a cup of *Claret* looke like a weake leane wench that hath the greene sicknesse. And such as we have from *Bristowe*, is fitter to be drunke with a Welsh Goate, then an English Buck.

Wee are barde of our *Meate*, bound from our *Drinke*, and many other provisions, which almost all other shires have. During your Fathers life time our *hopes* were a foote, wee had the *Vantgard* in the warre : But, since his death, put to the *Reare*, by occasion of your *nonage*, and such accidents as bee-fell.

But now seeing your sacred Sovereaigne puts his hands on your shoulders (without which the greatest Subject cannot put his hand on his heart, for want of one) forget not (my noblest Lord) to fall at his *feete*

Bristoll
better served
with Sacks
then Gas-
coine wine.

WATER-WORKES.

in favour of your Fathers *favorites*. If a *Commission* of *Shewres* happen amongst us (by Gods visitation) then I hope you will most earnestly beseech his Majestie, that his *Supersidias* knock not out the braines of the Commission of *Salmon-fishing*. The fore-said *Supersidias* hath alwayes beene our utter over-throw. My good Lord, compare all the *Rivers* in the Kingdome together; and you shall see and heare by all antiquitie, the *River* of *Wye*, did exceede all other for *Salmon*. These *Weares* your three fore-mentioned Lordships, with the rest doe owe. They doe you and them but the least service; they bring some fewe of your *Salmons* in season to your Table: and a hundred thousand bee served unseasonably. In my memory, it hath bred an inbred murmure amongst us, which hath made the most so melancholy, as I thinke the braines of many be not settled in their true situation. They confesse their error, and report their mistaking: first, to bee from a worthy old Gentlemen, Maister *Philip Jones*, who out of a blind zeale (like Papists that goe on pilgrimage) yet wanting the true length of the three Lords legges, (but held

It is manly to erre, beastly to continue in error.

WATER-WORKES.

held a true course agreeing with all actes of *Parliament*) did put a foote the *Commission* of *Shewres*, not thinking the Earles of the *Land* to bee the *Gods* of the *Earth*. His yeares worne out, and memory decayed, foure-score odde yeares drawing on the day of his death, never trained at the *Counsell-table*, durst not presse into the presence, and (like a dotard) did never *New-yeares-gift* the Ladies of the *Privie & Bed-chamber*: then what with illiberality of breeding, some misery and untidy *handling*, suffered to be shuffled into the *Commission* of *Shewres*, *friends* and *foes*: so, by often meetings and over-long delays, harazed and wore out all his *hopes* in dooing any good. The first *Commission* having made a peaceable end by *Supersidias*; the death of which *Commission* bred more lamentation in three *Shires*, then the death of three Earles (best common-wealths men) would doe in all England. The last *Commission* might be played on the Stage: The principall persons were Commissioners; all which had *Weares* on the River: and all had reason enough to over-rule *Baby-Commissioners*.

The private is more respected then the publike weale, of men private.

WATER-WORKES.

Alluding to
that in
maister *Fox*
his Acts and
Monuments.

As at a quarter *Sessions*, one great man will under-take the managing of matters belonging to all the *Bench*. If poore I, should but speake to countenance a *cause* (for a wench made woman before her time.) Hee lookes on the one side, as if I were put in *Commission* onely to certifie Recognisances for *Ale-houses*: or to give a respective voyce if a *faction* happen to arise: so, these *Baby-commissioners* for the *River of Wye*, hold their *Hattes* in their hands, the one legge lower then the other, ready to doe all their duties at once: and the *grand Commissioners* (like Bishop *Bonner*) with *Riding-Rods*, threaten displeasure, or utter destruction, to all that were not of their devotion towards the *Weares*. This hath beene the Common course and custome of the *Commission* of *Shewres*, to out-countenance the cause by the greatest persons: but, the LORD of Heaven ever so wrought, that the *Weare-owners* were more beholden to the *Supersidias* then to twelve men: twelve men having given their Verdit, a Judgement against the *Weares*: & after all this a *Supersidias*! ô! The consideration of it would have made old *Ployden* (had hee

WATER-WORKES.

hee beene living) forswear the *Law* in his latter dayes. Maister *Blonden* being of *counsell* with the *Country*, it so mooved him (being over-come with puffing and blowing) that hee wrought upward and downward, as if hee had taken a *vomit* or a *purgation*. I remember in Queene *Elizabeths* dayes my Lady of Warwick, Mistresse *Blanch Parry*, and my Lady *Scudamore*, in little *Laye-matters* would steale *opportunity* to serve some *friends* turnes; but where and in whome the *Supersidias* rests at Command, this mystery I would my good Lord would learne; because none of these (neere and deere Ladies) durst intermeddle so farre in matters of *Common-wealth*. Twenty Commissioners attend the service, whereof foure to be of the *Quorum*, ever in place: the greatest men of the number, having no desire to proceed: Many dayes meeting disappointed for want of appearance: the Jewry sworne, their appearance, by penalty, appointed twentye miles off: the twenty *Commissioners* present, some to *uphold*, and some to *over-throw*. In this manner, for a long Summers day (which dured sixe months) wee bare

A Trinity of
Ladies able
to worke
Miracles.

WATER-WORKES.

An assault
towards,
against
Chepstow-
bridge by
Salmons.

the brunt of all opposition. Our last meeting was at *Chepstow*, and at the mouth of the river *Wye*, the Jewry (having day given for their verdict, riding over the *bridge*) upon a sodaine saw the water swolne with a *sea* of Salmon. The Inquest enquiring of them what news? they answered by signes (sith they were as mute as fishes) they were bard of their native *country*, where all their *ancestors* were *bred & borne* : & in their *infancy* nursd, till they came to *Salmons* estate. This moane they made by instinct of nature : the Jury praid they would commit no ryot, but indure the day of the Juries verdict with-out their further approach ; and order should happily be taken for egresse & regresse as of old : The Bridge being in a dangerous case meane while ; for it seem'd their so neare coming, tended to no other purpose but to strike up the heeles of the Bridge, not laying his glory in the dust, but the water : For feare whereof (as if the Bridge had lost his heart of Oake) it fell downe (heartlesse-lubber) of it selfe within one yeare following, and for the Salmons further comfort, the Jewrie told them

WATER-WORKES.

them the great *Lords* were *Lords* of the *stickes* and *stakes*, not of the *River* ; the *River* was the *Kings* : no prohibition lay against them, but that they might lawfully enter into their old *habitations* and places of resort : onely the great *Lords* will say, they have three yeares possession, or it may be, challenge *prescription* ; which cannot be ; you being the *Kings Tenants*, no *time* going beyond the *King*. I am not satisfied, how after such a world of *Labour* and *Toyle* by the *Commissioners* and *Jurors*, that the bare *Information* of a *Weare-owner* (perhaps) could annihilate all our painfull *Indevors* for the good of sixe *Shieres* with a *Supersidias*.

If I should forget to tell your Lordshipp it hath beene in the memory of many yet living, that the *River* of *Wye* did yeeld *Salmon* so plentifully as *Sturgeon* in some partes of *Germany* : & that a *Hereford-shire* servant would surfet on fresh *Salmon* as oft as a *North-Hampton-shire* man on fatt *Venison* : and since my nativity, till yeares of discretion had over-taken mee, I could not Learne this lesson. For my Foster-mother *Woodhill*, old mother *Webb*, and mother *Spooner* (such Mothers,

It is most
strange, and
yet most
true.

WATER-WORKES.

there are (my good Lord), though you know not their Fathers) telling the *Wonders* of the *Weares* so pittifully, as if they hadde beene in the captivity at *Babylon*: How thirty *Salmons* were taken such a morning at a draught, and thirty three, at another time.

The *Supplication of Beggers* so moved the heart of that famous King *Henry* the eight in his later dayes, that hee did nothing else but platforme *Foundations* for true and sound Religion.

If these *Weares* had bin in his daies in such manner as they be now, he would have taken the like order with them as hee didde with *Abbeyes* and *Monasteries*. As an Heresie is bred and hatched amongst those that understands no true Religion soonest ; so, in the tender time of that sweete and gracious King *Edward* the sixt, these *Weares* had their *breeding* and *increase*.

But GOD determining his time untimely, the *Weare-owners* gott a descent against us: and on a sodaine wee fell into the handes of a King of a strange Language; then wee (being *Brittaines*) could speake no *Spanish*; hee and his
60 queene

Behead
them like
Traytors.

WATER-WORKES.

queene too too much troubled in establishing their owne Religion, wee had ynough to doe to defend our *bodies* from Bishop *Bonnors Bon-fiers*: and deferred all our intended *Supplications* to a hope-fuller time.

Our late, and blessed Sovereaigne Queene *Elizabeth* (Englands joy, defender of the *faith*, & faithful establisher of true *Religion*; (whose matchlesse Princely vertues, the world didde, and ever shal admire) yet her aged yeares troubled with a discontented warre (a) forced us to silence with many a sorrowfull heart.

Now (my Lord) the time is come to exhibite our supplications: the King of glory hath sent us his sacred servant *King James*, together with a fruitfull Queene and royall Issue, according to our owne heartes: A King that can teach Religion; a King from beyond his Cradle, and free from strange devotion; succeeding a most religious *Maiden-Queene*.

(b) Now, is our time most humbly to beseech your Lordshippe (you having immediate grace and favor from his Majestie, wee poore wretches not daring

(a) That of Tryon.

(b) Time is now most opportune.

WATER-WORKES.

to speake, beeing people of the quietest and peaceablest *dispositions* of the Kingdome) not to neglect our *Common-wealth*. Remember the love your Father and Grand-father bare their-our *Countrey*: remember wee were their *kinsmen*, and *servants*, and of the dearest respect of any what-soever with them. Wee desire but passage of the Law of the Land; and that your Lordship wil not speak in favor of your owne *Weare* (O supernaturall vertue!) nor my Lord of *Shrewsburies*, nor any of the rest, no, nor suffer a *Supersidias* to land neare *Chepstows-bridge* least it make it shake for feare, of a second Commotion of *Salmons* against it. I have acquainted your Lordshipp with this *matter-mechanical*, & made known unto you the raising of our Church, the planting of our Preacher, the Chappel & Almes-house with the rest apendant: if your Lordship take but a superficial view of this giddy *Invention* (as some of your late servants term'd it) it wil satisfie me, it being but a particular *plot*, not able to be performed by any whose estate exceeds mine a million; because the place of my Residence affords *Meddow*, *Pasture*, all

62 kinde

WATER-WORKES.

kinde of *Corne, Wood, Water* near at hand; & especially blest with such a number of *Beggars* as are able to undoe a Countrey. But my Lord, I doe most humbly pray, that in the reading & viewing of my *Water-workes*, you will unite your heart and eyes to read respectively, for retention sake, to the (a) end you may call to account, your *Stewards* and *Surveyors* of your Lordshipps *Mannors, Lands and Tenements*; What *Rivers, Brookes, Fountaines* and *Springes* do inhabite the compasse of your *command*, and that your Lordshipp will spare sporting-times for some few houres, that I may give you such information, and precepts withall; that (at your pleasure) you may charracter what *profit* this *Wattry Element* will raise you, more then ever was raised.

I do not say I wil, but I could, in your *Monmoth* and *Glamorgan-shire*-countrey single out (in a short time) all the *Rivers, Brookes, Fountaines* and *Springs* which owe duty or speake well of any of your Lordshipps Lands. If my *Labors* bee in that manner commaunded, it will cost your Lordship *Warrants* for *Bucks*, and *Letters of Priviledge*, that your *Tenants* raise not

(a) A gainful
end of painefull
reading.

WATER-WORKES.

(a) Feare
of private
harmemakes
publike
hatred often
to arise from
long-laid
rest.

(a) head against mee : weening my coming to bee the overthrow of their Posterity.

I protest thats not my purpose, but to put a foote the *Mistery* of *Winter* and *Sommer-drownings*, to the comfort of the Countrey, and present profit of the present Inhabitants : humbly praying your Lordshipp, as you shall receive a great increase: so, you do not (according to the new fashion) by extreme racking, ransake the succeeding *Issue* of the faithfull *Fol-lowers* of your eldest *Ancestors*, whose old gotten-glory, at *Rodes* and *Malta* (in defence of the holy land) the *Brittish* Traditions and Recordes, in great abundance, doe testifie.

I have done with my *Mechanicals*, and the hopefull river of *Wye* ; only I will fixe this accidentall merrymment in the *Frontispice* (or broad-brow) of my *Preface* to my *Water-workes* : signifying the cause of these excursions to proceed from unbeleeving creatures, possessed and puffed with pride and peevish opposition.

An act of Parliament will bee required for joyning of *Peter-Church*, *Vow-church* and *Torneston*, there distance beeing not

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a mile a sunder ; *Turneston* having onely one *inhabitant* to make a congregation ; the living extending it selfe but unto *ten pounds* yearly, two of them straining them-selves to make forty in the whole.

A most miserable allowance for a *Preacher* and his *Curate* ; and most miserable the time when *Ignorance* (out of heate of a preposterous zeale not able to render a reason of the faith they hold, nor well know whereof they do affirme) will adventure (with libellous Articles) to informe (against men conformable) a reverend father, Bishop *Bennet* (Bishop of the Diocese) whose heart was prepared with all his power to the higher house of the Parliament to settle this *president* (viz : to unite three Parishes into one) in the Border of the *principallity* ; Yet a new fangl'd fellow, presumed to falsefie the testimony of the Inhabitants of those three Parishes, and sought a Preaching Minister of purpose to alter the antiquity of their religion, and change the true ceremonies ther-unto incident, unto a strickt observation of quick-silver-brain'd Discipline : and cause mee to bee questioned before the Bishop for these mis-

65 demeanors,

WATER-WORKES.

demeanors, as if Heresie or Sacriledge had beene the ground. But the Bishop (most judiciously) quitte mee as no way taxable: I desir'd by Acte of Parliament to unite these *Churches* into one *body* (being *patron* of two of them, the third under a *prebend* of the *Cathedral Church*;) but they wrought with the Ecclesiastical state by principall men, that an homily audibly red would be as edifiable unto the simpler sort as a *presician-Sermon* unto the reformed *phantastiques*. These troubles, the *African-Politician* hath raised: And I feare a further mischief, that he will inforce those *Lunatickes* to stirr upp the *Patron Prebend* to a higher pitch; his infirmity offering nothing lesse then all the likelyhoods of discontentments. But having gotten a *fee-simple* in the Bishop, a *free-hold* in the Deane and chapter; an inheritance in the rest of the *Cathedrals*, we beg at your Lordshippes handes to add the Act of Parliament to put us in possession. In following which Acte, it is necessary your Lordship warrant my descent from *Gladis de gam* Daughter of *S. David Gam*, slaine in the vangard of the battell of *Egincourt*; who beeing sent by *Henry* the fift to discover

66 the

WATER-WORKES.

the force of the *French*; Answered, *they were a-now to be slaine, e-now to be taken prisoners, e-now to run away*: which speech continues to his everlasting praise: this *Gladis* being mother to your Lordships *Ancestors* & mine: the *Earle of Pembroke*, *Sir Richard Herbert*, *Vaughan of Bradwardin*, *Vaughan of Hergest*, & *Vaughan of Tretowr* hir 5. sons al 5. brethren & al 5. overthrown at *Banbury* field. Five such brethren out of one woman, the 13. shires of *Wales* hath seldom yeelded: my Lord, I am By *Gladis*, kin to most of the Old Nobility: which aged descent is almost worn out, yet not so worn, but either by consanguinity, or affinity, I can light on a *Howard*, a *Herbert*, a *Somerset*, a *Carew*, or a *Knowles*, ever ready to assist an Act of Parliament to raise a preaching Minister. These turbulents over-frighted, stir'd up the harts of the poorest people to a dangerous mislike with invective *breathings*, that they must goe above a mile to a *sermon*; that their Church would not containe the three Parishes at a *Sermon-time*; that it could not bee done by Law, and that forty pound was sufficient for a *Preacher*, and that I did it not

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out of *zeale*, but out of *ambition*; seeking mine owne glory & gaine, wherein (God is my judge, my Lord) they wrong me as much as their own charitable judgements.

NOW my (honorable Lord) I come to the point: to make rehearsal, and to demonstrate my *under-takings*; setting forth the *Clothier* (with his twenty broad *Loomes*) for the finest cloth, to be the worthiest. Ten narrow *Loomes* for course *Wool*, *Flaxe*, *Hempe*, and *Hurdes*. Some *Fustian-loomes*, with such *silke-loomes* as shall bee needfull: Two thousand poore *Spinners*, *Carders*, *Wooll-pyckers*, *Quill-winders*, with the *Broad* and *Narrow-weavers*; Fifty *Habitations* with *Shops*, *Chambers*, *Chymneys*, and *Cesterns* for washing their hands; for severall *Artificers*, that neither *Clothiers*, *Weavers*, *Pyckers* of *Woll*, *Quill-winders*, *Spinners* and *Carders*, shall ever lose an houres labour. No *women*, *children*, nor *Prentises*, shall be free of this place, but all selected *Journey-men* of the best ability of body and Arte that may be had. I give fifty pound *yearely* and perpetually unto a *Preacher*; twenty

68 pound

WATER-WORKES.

pound *yearely* and *perpetually* unto a *Curate* ; who shall alwayes attend the Artificers, to read morning and evening prayer in their Chappell. An *Almes-house* for such as (I sayd before) *necessitie* doth cause to for-beare their owne *gett-ings*.

Many Honorable Gentlemen finding mine ability such, as not sodenly able to raise the same : they wisht I would prepare a number of benevolent *Contributers*, persons of the greatest worth, best affected, and knowne to bee most comfortable to the Common-wealth : out of which *Number*, I doe most humbly invite your Lordship, with my Honorable Lord of *Mount-gomery* to this benevolent preparation.

I likewise invite some venerable and reverend *Bishops* (my especiall good and loving Lords) the Lord *Bishops* of *Worcester*, *Hereford* and *Gloucester*.

I invite my Honourable Lords the Lord *Chiefe-Justice* of *England*, and that worthy Lord *Chiefe-Justice* of the *Common-pleas* : the Lord *Chiefe-Baron*, and my Lords the Judges in generall.

I invite the Knights of the *Bathe*, Knights of the *Field*, and Knights of

WATER-WORKES.

GREAT BRITAINNE, Maister *Talbott* of *Grafton*, Maister *Sheldon* of *Beley*, Maister *Dutton* of *Sherborne*, and Maister *Harley* of *Brompton-brian*, with all *Esquires* and Gentle-men of all the *Counties* of the kingdome.

I have seperated your Lordshipps (with the rest) from the *society* of the sullied *leier* of *Subjects*: so respective have I beene in the execution of this *Invention*.

If your Lordshipp will know what hath induced mee to these purposes: beeing over-questioned by the *Tag-ragg-rable* of dull-pated Ignorants; that I had protested and promised to publish my *Water-workes* long before this:

And ever-hoping to reduce it into that *forme* which might bee pleasing to all *posteritie*, and not quarrelled at by anye, it beeing so full of *difficultie* and *varyetye* of *forme* and *matter*.

Not possible to give it his *Ornament* with-out this that followes; having neyther *President*, nor *Example*, to stirre mee uppe any waye to the like labours: Ever desirous to use a correspondencie: So as a *Souldier* I will leave some testimonie or Relicke of that Honourable rancke

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wherein I had my breeding : and end
my dayes with a Souldier-like fare-well.

BEeing one of hir Majesties Captaines,
raisd in *eighty-eight*, having my direc-
tions from my Honourable LORD and
Maister your *Father* : I have spent that
small *Talent & skill*. Never curious in
concealing from my *Lieutenant, Ancient,*
Serjant, Corporalls, and *Drumme*, the wor-
thynesse of the warre: unto which I am
much inclin'd.

Most humblye beseeching your Lord-
shipp, if you heare any say, I am *fantas-
ticall*, say you (my deere LORD) I am
but *curious* ; so excuse mine *Imperfections*
the best you may, and I will ever honour
you.

The time is spent, and I must spende
some time with the *Printer* : and a little
more in *sorting, couching,* and *planting* my
dyning-roome, free from all *disorder*.

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In what manner my Table shall be furnished; What attendance the *Mechanicall Artificers* shall performe; how industrious my *Ancient* and *Serjeant* shall bee in preparing all these *Artificers* for his Majesties service, into what place it shall please his *Hignessee* to command them.

Now(my Lord) I end with this materiall *circumstance* beeing extracted out of mine owne meanes. I signified in mine *Epistle* to your Lordshipp, A dining-roome to entertaine a world of worthy benevolent *Contributers*: The *Table* perpetually furnished to entertaine forty of those *Contributers* dayly in expectancy; A hundred *Artificers* subject to the *Service* of the *Table*: Twenty-five attending at *Dinner*, and twenty-five at *supper*: fifty more on the *morrow*: and so the hundred *Artificers* shall attend the *Table* in this manner *Dayly* and *Perpetually*.

In recompence whereof they receive the benefit of the *Reversion* with all the comfort I can afford them.

All the *Artificers* to attend the *Preacher* to *Sermon* and home againe. The Visitor of the *Negligencers* Attendant to informe their misdemenors to the chiefe of the

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Company, if there bee because that no common *Swearer*, *Drunkard* nor *Swaggerer* shall live within the limits of my allowance. His first offence warned, the second punished, the third discharged for ever from the place: Every *Artificer* shall unto every *Contributor* (at their comming thether) humble them-selves with (all respective obedience) acknowledging them by word and deed to be the Founders of their well-doing, and happy *Common-wealth*.

The Dining-roome wainscoted, and fairly hang'd with Arras.

Touching the Fare to bee served to the Table dayly and perpetually, forty full dishes of variety of meats; with a Pasty of Venison to Dinner, and another to supper, when they are in season.

A Sentinell sett from ten to eleven in a Turret, for discovery, to see what *Contributer* comes: If a Foot-man dwelling in the neighbourhood; he gives the Larum by the toule of a Bell, signifying him to bee a Foot-man; which heard, then the Drumme soundes. If a Horse-man, by the Larum hee signifies him to bee a Horse-man, and then the Trumpet soundes. And upon their comming into the Dining-

WATER-WORKES.

roome, All Officers of the company intertaine the *Contributers* with all joy and merriment: the wind Instrument, with all sortes of Musicke plaies Dinner and Supper: and to adde all the comfortable contentment to all *Contributers*, from *Bartholomew* day to *Mid-may*.

The *Groome* of the Chamber shall at his perill prepare a good fire with *Ashe*, *Hawthorne*, and *Char-cole*.

My LORD, that honourable and most worthy Judge the Lord Chiefe Justice *Poppam* hearing of my *Drownings*; said *Cousin*, how dost thou drowne? I told him by helpe of a River or Brooke; by *Weare* and *sluce* to take part, or all, into my *Trench-royall*. Whats thy *Trench-royall* (saith hee?)

The Trench-royall is a Cesterne that serves al offices in a Nobleman's house.

As a Cesterne in your Lordshipps house, that serves all Offices: My *Trench-royal* serves my *Counter-Trenches*; my *Defending-Trenches*, my *Topping* or *Braving-Trenches*, my *Winter* and *Sommer-Trenches*; my *Double* and *Treble-trenches*; a *traversing trench* with a point; And my *Everlasting-trench*, with other *troublesome trenches*, which in my *Mapp* I wil more exactly demonstrate.

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The good Lord hearing all these wordes, (able to raise a Spirit) sayd: Cousin art thou out of thy witts?

My Lord for distinction sake (said I) I must give them significant names, such as my servants attending my *Winter* and *Sommer-Drownings* may understand to execute my commands.

So, my Lord, I having given satisfaction to the honourable person, I will make it most plainly appeare to your Lordshippe how fecible this Worke is: that all *Cynick-Doggs* or *Lamb-biters*, may with shame be silenced, and their foule Mouthes muzled.

It is yet wondered at, by almost *all*, how a particular and private Gentleman should bee able to bring all this to passe.

But my good Lord (on my behalf) I humbly pray you to pray all of the better sort, to besparing of their censures herein; for artlesse-*Aimes* seldome hitts the marke.

I would that no man should say, I doe it out of ambition or other sinister respect: for the Rule of Charity is: in cases doubtfull, wee should judge the best.

But if any (notwithstanding) should bee so injurious to say so, then (my LORD)

To speake
what we
know not, is
to think what
we should
not.

WATER-WORKES.

LORD) they may say the Clothier; the habitation for *Artificers*, the *Chappell*, and *Preacher*, *Curate*, *Almes-house*; My Table for the benefit of poore *Artificers*, and whatsoever else is good (yea a *Common-good*) is out of ambition.

I hope (my good Lord) I shall heare no more of such Objections; if I doe, though I am no Poet yet I can make Ballads, To the tune of *up-tayls-all*: For Ile lash them Ifayth with *Rimes* that shall make it rancle where they fall.

But to take away the wonder of the World, and to give satis-faction to the envious-unsatisfied.

I can keepe three hundred Kine, three hundred young Cattell, three thousand Sheepe, all these Winter and Sommer: Having besides ten Plough-Land, all hard at hand; foure Milles as neare, and within two mile of the place Tymber sufficient for all my Buildings. And Fire-wood ynough for all the Artificers, the Inholder and the rest; Wall-stone, Tyle, Lime and Bricke, as necessary as any man living.

My good LORD, I doe not thus Inventory my Estate, and paint forth the

This I mince
thus for ill-
digesting
stomacks.

A just ex-
cuse.

WATER-WORKES.

Particulers, as if I were to sell it by the Drumme ; or as looking thereon with Vaine-gloryous Eyes. No, no, my good LORD, nothing lesse (for there is no such cause, I am the more sorry). But I doe it (perforce) to give the doubtfull Inquisitor satisfaction for the setling of his beleefe herein, *That I attempt nothing with out the limmitts of mine owne strength.*

But now your Lordshippe shall heare an end of the Wonder. All men wil confesse, three hundred Kine wil raise, Braunes, Bacons, Porks, Piggs, Geese, Turkeis, Capons, Hens, Chickens, Ducks, & the like. They wil confes ten *Plow-land* in severall places, all with-in a myle, with my *Tithe-barnes*, will do the like.

They will confesse my foure *Milles* beeing within a slight shoote one of another, will doe the like : They will confesse my *Brew-house*, my *Backe-house*, my *Kitchen*, my *Beare-seller*, my *Shambles* ; and the water from my *Uting-vats* will doe the like. Besides in a *Maste-yeare* I can feed a world of *Hogges*.

Your Lordship sees I am forc'd to doe, and over-doe, as one that must doe *All*, else nothing will bee done : I thinke I

WATER-WORKES.

What benefit can be raised.

have besturd my selfe pritty well, to make the whole *world* wonder at mee.

Your Lordshipp shall now see what benefit I receive for the perpetuall continuance of this *Table*.

The *Butter* and *Cheese* of my three hundred *Kine*, I sell, and furnish the *Clothyer*, his *Broade-weavers*, *Spinners*, *Carders* & the rest; with all the *Mechanicalls* there-with. The *Corne* of ten *Plowlands*, *Wheate*, *Rye*, & *Malt* made in my own *Killing*; I grinde at my owne *Milles*; Bak'd, & Brewed in my *Bake-house* and *Brew-house*; and sold to the foresaid *persons*: My *Wooll*, my *Muttons*, *Lambes*, and *culld-sheepe*, of my three thousand I sell to the sayde *persons*: I sell yearly one hundred of my eldest *Oxen*, *Kine*, and my cul'd *young Cattell* fatte to the *persons* aforesaid: I finde all *Artificers*; and *Inkeepers* wood, which will bee ten times more profitable unto me then now. Let *Men* judge what benefit I may make of my *Brew-house*, and what of my *Bake-house*, what of my *shambles*, my *Haye* & *Provender*; my *Chandlers-shopp*, my *Barke* unto the *Tanner*: to whom I sell all my *Hides*; the *Glover* hath all my *Pelts*: what

provision

WATER-WORKES.

provision my owne estate will not affoord, the *neighbourhood* can provide it, that neither *want* nor *scarsitie* shall afflict any of his *Majesties servants* and *subjects*.

My good Lord, let it not seeme irksome to you, nor cloy your dainty eare, that thus I belabour your attention with repetition of these countrey-commodities, and common-wealths Requisites ; so to season your *courtly pleasures*, as *sharpe sawce* doth *sweete meates*, but when you bend your regarde to these things (as I doubt not but you will: For active witte in short time turnes to working wisdom:) The *worlds* observation will then know, you waxe ripe for the *highest employments* : For it strongly argues *youth* is then well mellowed, when it begins to looke into these necessities for mans life with *Ages* eyes. *Pleasures*, that tickle our *sences*, make us but spoile *Pretious-time* ; while they betray our *Reason*, that should rule rebellious affections that ought to obey. The sooner these enemies, to mans dignity, are shaken off from the *Minde*, the sooner will the *Minde* advance the *Body* to dignity.

It is a glorious (how ever troublesome)

WATER-WORKES.

thing to have a chiefe *Oare* in the *Shipp* of a well-governd *state*. The benefit of life in great men cannot be better imployde then to the benefit of good men. For the *Back* and *Belly* is *Natures* chiefe care; these beeing provided for, shee sweetly takes repose. What is over & beside, is for Ornament, which shee wants not: for pompe which shee requires not: or for pleasure, which if she wanted, shee would the more abound in all *goodnesse*.

Now, (my good Lord) these *Indevoures* and *Workes* of mine (tending to thee full supply of the *Back* and *Bellyes* wants) are to be heedfully respected in their particulers, by you that one day may have this care cast upon you, by *God*, *King*, & *Countrey*, to see to the *necessities* of All, while you consult but with a Few. *Its merry in hall, when beards wagge all*, (saith the old Proverbe). And it's a merry Weale-publick, where *ever-enough* is as good as a feast, suffizing all by good *government*.

The manner of my
Drownings.

Fter I had spent some
yeares in Queene *Eliza-*
beths Court, and saw the
greatnes and *glory* therof
under the command of
Mistres *Blanch Parry* (an
honorable & Vertuous
Gentlewoman, my Aunt and Mistresse)
my *spirite* beeing too tender to indure the
bitternesse of her *humor* ; I was by her
carefull (though crabbed austerity) forced
unto the *Irish* wars, where I continued
three or foure yeares some-times twist
deep in that country-water : & what
with long fasting and ill diet, I was pos-
sessed with the *Country-disease* : the ex-
tremity whereof hasted mee to returne to
my

Flix.

WATER-WORKES.

my Fathers home in the County of *Heref.* for recovery of my health : which within sixe months I obtained. After it pleased GOD to give mee recovery, I resolved for the *Lowe-countrey-warres* againe : and having begun my journey thetherward, I happened on a *Country-Gentlewoman*, who was seized of a *Mannor*, and over-shot *Mill* : which converted all my *martiall endeavours* and hopes of *honor*, to these country-labours : Having sojourn'd two yeares in my Fathers house, wearied in doing nothing, and fearing my *fortunes* had beene over-throwne in putting by my *Martiall occupation* ; I began to expostulate with my selfe what was best to be done to preserve my reputation with my *martiall companions*, and with-all to give contentment to my vertuous and loving wife. And while I was to settle a resolution, comparing these desires together, my Wives importunity caused mee to quitt their ordinary familiarity, yet with limitation ; at such times as conveniency might afforde.

This restraint of hers, drewe mee to the attendance of *home-labours* ; who prayed mee with-all in my walkes abroad, to have

WATER-WORKES.

ane eye to her *Millers* true dealing. I prayed her to put over that service to some *servant* of hers: for of all trades I had least confidence in their truth: and therefore required the more paines to be taken in watching their water, & looking to their fingers, which I was loth to undertake: not-with-standing, (upon better consideration, least shee should have held me carelesse of her good, and so ill deserve her love) I obeyed her will, as many doe, and many miseries do ensew thereby: So, in the month of *March*, falling (with the streame) to the milne-ward within my Meade (with no desire (I protest) to fashion or forme *Husbandry*) I happened to finde a *Mole* or *Wants* nest, raised on the brim of the *Brooke*, like a great *hillocke*; from which nest or *hillocke*, there issued a little *streame* of water, (drawne by the working of the *Wante* (downe a shelving or descending ground, one pase broad, and some twenty in length.

The running of which little *Streame*, did, (at that time) wonderfully content mee, seeing it pleasing *Greene*; and that other on both sides full of Mosse, and Hide-bound for want of water. This

The first
cause that
the work was
undertaken.

WATER-WORKES.

was the first *cause* I under-tooke the drowning of *grounds*.

Now, to proceede to the execution of my *worke* (beeing perswaded of the excellencie of the *water*) I examined how many foote-fall the *Brooke* yeelded, from my *Mill* to the upper-most part of my *grounds*, beeing in length a measured *Mile*.

There laye of old *Meadow-ground* thirty acres over-worne with age, and heavily laden with *Mosse*, *Cowslips*, and much other imperfit *grasse*, betwixt my *Mill-streame*, and the maine *River*; which (with two shillings cost) my *granfather*, and his *gransire*, with the rest, might have drown'd at their pleasures: But from the *beginning*, never any thing was done, that either *tradition* or *record*, could witnesse, or any other testimonie.

Having vewed the convenientest place, the upper-most part of my *ground* would afforde for placing a *Commanding-Weare*, or *Sluce*, I espied divers *Water-falls* on my neighbours grounds, higher then mine by seaven or eight foote; which gave me greater advantage for drowning of more ground, then I was (of my owne

WATER-WORKES.

power) able to doe. I acquainted them with my purpose : the one (being a Gentleman of worth and good nature) gave mee leave to plant the one end of my *Weare* on his side the *River* : the other (my Tenant) beeing very aged and simple) (by no persuasion I could use) would yeeld his consent : aledging it would marre his *ground* : yea, some-times his *Apple-trees* : and men tolde him water would raise the *Rush*, and kill his *Cow-slipps*, which was the cheefest Flower that his Daughters had, (beeing many) to tricke the *May-pole* withall. All which with silence I past over for a time, knowing his simplicity to exceed his discretion ; yet in the end I re-enforc'd my persuasions, and tolde him (next unto the King) I was to bee obeyed in matters reasonable : and that it became him not to provoke his *Land-lord* ; nor to stand at the staffes end with his Commander. Yet these Buggs-words would not moove him. Then gave I a fresh charge, and to draw him on with a Baite which hee would soone bite at, tould him I had a *Meddow-plott* in his neighbourhood, worth forty pound, which I would part with on

85

reasonable

WATER-WORKES.

For no
simple fee.

reasonable termes : but before I could make him beleeeve hee was a foole, he gott the *Fee-simple* thereof. Which *President* doth falsifie the old-said-Saw, *Thou art an old doting foole*. After I had wrought this farre, I caused my servant (a *Joyner*) to make a *levell* to discover what quantitie of ground I might, (from the *entry* of the *Water*) obtaine : allowing his *dubbing-course*, compassing *Hills* to cary it plym or even : which fell out to bee some three hundred *Acres*. After I had plimmed it upon a true *Levell*, I be-tooke my selfe to the favour of my *Tenants*, *Friends* and *Neighbours*, in running my *maine-trench* (which I call my *Trench-royall*) I call it so, because I have within the *contents* of my worke, *Counter-trenches*, *defending-trenches*, *topping*, or *braving-trenches*, *Winter* and *Summer-trenches*, *double and treble-trenches*, a *traversing trench with a point*, and an *ever-lasting trench*, with other *troublesome-trenches* : which in my Map I will more lively expresse.

When the *Inhabitants* of the country wherin I inhabit, (namely the *Golden-Valley*) saw I had begun some part of

WATER-WORKES.

my *worke*, they summoned a *consultation* against mee, and my man *John* the levellour : saying our wittes were in our *hands*, and not in our *heads* : so, we both for three or foure yeares, laye levell to the whole *Country-censure* for such *Enginors* as their fore-fathers heard not of, nor they well able to endure with-out merriment.

When my *labours* tooke beginning, they became subject to *discourse* : Diverse Gentlemen with others, inquired from whence I had my *Examples* ; and where I saw any such *worke* ? I could not answer them but with an other question : namely, where sawe you any such ? They said, no where : Truly nor I.

In the running and casting of my *Trench-royall*, though it were leveld from the beginning to the end, upon the face of the *ground*, yet in the bottome I did likewise levell it to avoyde error.

For the *Breadth* and *Depth*, my porcion is ten foote broad, and foure foote deep ; unlesse in the beginning, to fetch the water to my drowning-grounds, I rann it some halfe mile, eight foot deepe ; and in some places sixteenne-foote

WATER-WORKES.

Ignorants
praise good
endings, but
doubt, or
dispraise
their begin-
nings.

broad. Al the rest of the *Course*, for two miles and a halfe in length, according to my former proportion.

When my *Worke* began, in the Eye of the Countrey, to carry a shew of *profit*, it pleased many (out of their courtesie) to give it commendations, and to applaud the Invention.

The Joyner hearing the commendations to bee generall, and hee the Leveller (which was (he thought) the cheefe Agent in the Action) there grew a brabble betwixt us. Hee began to insult and arrogate as a Coadjutor, by reason of his levelling, and desired hee might bee signified a principall party to the Invention.

I bad him have patience, the Invention was mine, together with the dignity : and told him withal the ambition of soldiers would not indure society with men of Mechanicall *trades* : I only imploy'd his hand, and not his head.

So having compounded the brabble betweene us, I fell into the handes of an unskilfull Carpenter, in planting my commaunding *Weare* or *Scluce*, crosse the maine River.

WATER-WORKES.

Hee gave mee such assurance for the safe continuance thereof; that hee undertooke to maintaine it with twelve pence a yeare, during his life.

After hee had prepared it ready for the foundation, hee planted some thousand stakes in the bottom of the *Brooke* to carry the maine Syll. When the Syll was lodged uppon the *Pile of Stakes*, I began to suspect the *foundation*, and told him a great part of the water would undermine the Syll, and that I should hardly indure the want therof at my *Drowning-times*; especially in Sommer.

Hee grew teasty, hott, and peremptory; and sayd it was not the Maisters manner to controule; but, to examine: and that all his *Water-workes* were according to the *Venetian foundation*, built altogether uppon *Piles*: but the *Venetian-fashion* forced mee to want water ten yeares space, which was out of my way two thousand poundes.

The reason was this; the water undermining the *Syll*, it forced the *Earth* beyond the *postes*, which were placed in the firme *ground*; and having gotten the upper hand of the *main-Land* it could not bee help untill the *Sylle* were rais'd

WATER-WORKES.

again. I hadde a continual purpose to re-edifie it, but that I was interrupted by the ordinary course of Processe out of the honorable *Courts* of *Starre-chamber*, *Chancery*, and *Wardes*; the last of the three bredd more white haire in my head in one yeare, then all my *Wetshod-water-workes* did in sixteene: Not that I had cause to complaine of *Injustice*; but, because I understood not the course of the Courts, being pusled with an old *Feodary*, and a foolish *Escheter*, (the life and death of my *cause* resting in their mercy.) Twelve Jurors who passed against mee, lawe, equity, and conscience: Upon which *Verdit*, I was, by *Injunction*, commanded to deliver the *body* of a *Warde* I had in keeping, which I refused to doe: It happened my *Councell* found *Error* in the *Office*, and over-threwe the former proceedings, which was the over-throwe of my *Water-workes* for five yeares space.

The over-throwne-*Office* was a stolne *Office*, and found before I had notice of it. But beeing over-throwne, matter of greater *consequence* followed.

The *Queenes Atturney* commanded the

WATER-WORKES.

Feodary, who had gotten a grant of the *Ward*, to exhibite enformation against mee in his name: wee had *Commission* upon *Commission*: wee indured heavye and chargeable examinations.

Uppon which Examinations I had a *Hearing* in that Honourable *Courte*; and though it could not passe against me, yet it passed not with mee. One other *Commission* came downe, A Jury impanalled, Witnesses re-examined. That Jury found with mee, & (in my conscience) not one of the *number* understood his evidence: All which I shew to satisfie the Inquisitor, why so long I neglected my begunne *Water-workes*. When the *Escheator*, *Feodary*, *Commissioners*, and *Jurors* hadde putt their hands & seales to the Office, I prepared my self to my forsaken *Water-workes*; having left my wanton *Ward* in *London* in the custody of a *Precisian* or *Puritan-Taylor*, who would not indure to heare one of his servants Sweare by the Crosse of his Sheares, hee was so full of Sanctity in deceit. But the first newes I heard, hee marryed my Welch *Neece* to his English *Nephew*; and at my returne I was driven to take his word that hee

(a) Holy
fraud is the
falsest fraud.

WATER-WORKES.

was neyther privy to the contract, nor the marriage.

I desir'd but his oth for my satisfaction ; hee badde mee have patience, it was not his fashion to forswear him-selfe. Thus hoping I had beene quit of the cause, I prayed recompence of the Offender ; But within sixe months a new Commission came downe ; and a new Office found against mee : which manner of proceeding (I thinke) was able to breede white hayres in a *Brittaines* beard.

SINCE THE FIRST *Time* I undertooke the drowning of my *groundes*, I (as carefully as I could) sought to better my understanding by other mens *labours* : yet in the whole Kingdom I never found, nor heard of a work worthy observation : Having so many *Rivers, Brooks, Fountaines* and *Springs*, which run idely unto the Sea : without *Wearè, Sluce, stay, stanke* or *dam*, to turne some part of them upon grounds that need them, or to containe the substance

WATER-WORKES.

of plow'd lands and dunghils, which by violent *showers* washe away, and runnes ranging by those *grounds* that hunger and thirst for want of moisture. Our *Husbandmen* brag of raising *Corne* : How ? out of ther painfull labours : but (if they want compost) their increase is but barren, and for ought I have seene (except some few *Soiles* which yeeld plenty of *Hay*, by often overflowing of fresh *Rivers*, or the *Tide* staying uppon them as it were by damm) those *fresh-waters* yeeld their increase by nature, without industry. I would aske how many Shires bee in England, and in every Shire how many *Rivers*, *Brooks*, *Fountaines*, and *Springs* ? If the number be great, I wou'd know how they be imployed, and what our *Corne-maisters* (which carry the reputation for good husbandry) will say to it ? They will say (peradventure) and so will all *Husband-men* (without peradventure) it is easie to raise *Corne* with store of *Compost* : but (wanting *Hay* ;) I would learne how *compost* may bee raised ? The question betweene *errable* converted to *medow*, and *errable* not converted, wil be this : some will say, there is no reason

As good no running, as running for no good.

WATER-WORKES.

to put good *errable* to bad *pasture*. So say I too. Others will say, ordinary *errable* exceeds ordinary *Pasture*. It may bee true : but I speake of good *errable* appointed to bee drowned: I will give no estimat of English *Errable*; scituate neare *London* or Haven Townes, or to places more vendible then the country wherein I inhabite. Yet this will I exemplifie out of my experience, if the Principality were duly imploied, & each *acre* handled according to some plots begun, I would hope to live to see *Wales* called the *Garden* of England : for our *Welsh mountains* yeeld infinit *Fountains* & *Springs*, the *Grounds* *Fearny* & *broomy*, it being of as excellent a temper to intertaine water as heart can wish ; unlesse wee flye to the maine *Sandy-grounds*, which are but sparingly found in *Wales* ; the Country lying in a colde quarter of no hotte Climate.

(a) At what time, with what water, & how long you ought to drowne your Grounds.

Now, to speake of drowning, (a) at what time of the yeare, with what water, how long it may continue on the ground, and what effect it will worke, you shall have all I know to the uttermost ; at least if I remember all.

WATER-WORKES.

Now, fixing your fancy on this *Misterie*, you must pry into every *Fallow-field*, *Dung-hil*, and *Water-course* in your neighbourhood: then compare the quantity of *ground* unto the quantity of *water* you can draw unto it, and if you find *water* ynough to answer your desire, then in the beginning of your ground, plant your *weare* or *schuce* in height leuell with the Bankes, or exceeding it one foote (or there aboutes) ore-thwart the River or Brooke: and carry your *Trench-Royall* (*which is your grand-maister-Trench*) so farre as your ground extendes plimm or leuell: that from the mouth of your *Weare*, or *Schuce*, to the end of the *ditch* or *trench*, your water may flow backe againe over your *schuce* into the *River* or *brooke*. In so doing, you have a full command forward and backward (without any descent) to drowne at your pleasure: though your *trench royall* rise in the end twenty, or forty foote from the mouth of the *schuce*.

Having prepared your drowning-course, bee very (a) carefull that all your ground subject to the same (whether *Meadow*, *Pasture*, or *Errable*) bee as plaine as any garden-plott. If you leave any *forrow*,
95 reane,

(a) Looke well to the levelling of the grounds that are to be drowned.

WATER-WORKES.

reane, or *slade*, unlevelled, you shall finde that *forrow*, *reane*, or *slade*, will receive the most part of your water idely: which otherwise would disperse over the whole; and comber you with the care of new plowing it to make it the more plaine: which will hinder you two or three yeares at the least. Having made your *weare* or *sluce*, your *Drowning-course* or *Trench*, your *ground* levelled or plimmed, then followes your *attendance*: in flood-times see you suffer not your floud-water by negligence to passe away into the *brooke*, *river* & *sea*; but by your *sluce*, commaund it to your *grounds*; and continue it playing theron so long as it appears muddy: and finding the substance decaying (from a fat floud unto cleare water) take upp your *sluce* or *floud-gates*, and suffer the cleare *water* to have his course unto the maine *brook* or *river* again, untill new or fresh flouds appeare; and still as it riseth *muddy*, imploy it on your *grounds* during the *winter-season*. When you have spent the winter in *muddy-flouds*, and yóur *grounds* seasoned by sucking the substance of each fallow, and dung-hill: be sure, in the beginning of *March*, to

cleare

WATER-WORKES.

cleare your *ground* of cold water ; and keepe it as dry, as a *child* under the hands of a dainty *Nurce* ; that the continuance of cold water in the *body* of your *ground* in the spring, breed neither *Rush*, *Boult*, nor *Spiergrass* : but *grasse* much more profitable, thick, long, and fine ; voyde of all *Mosse*, *Hard-heads*, *Cow-slips*, or any *weede* what-so-ever.

Observe respectively your *soyle*, whether *clay*, or *sand* : for, *sandy-grounds* will endure tenne times more *water* (being naturally hotte) then the cold *clay* : yet some washers of grounds, (in their owne conceits) will imagine it's behoovefull to turne the water at all times on their lands ; or as long as they (in their discretion) thinke good. But so may (with indiscretion) surfeit a *clay ground* with a drunken-dropsie, as all the *Phisitions* in the *neighbourhood*, with all their visitations, will hardly heale in two yeares space. Having sufficiently sped your *clay-ground* in the *drowning-time*, (I meane *Winter*) you may (by negligence, or ignorance) suffer colde water, in the heate of Summer, to coole your ground so much, that the vitall spirits will bee decayed : and that

moisture

In the beginning of *March* cleere your grounds from cold cleare-water.

The best husbands or husband-men.

WATER-WORKES.

moisture having gotten the upper-hand, the Sunne workes, out of that *drunken-dropsie* ground, the *Rush*, and all other ill pleasing stufte, and unprofitable trash. I said in the *Spring*, you must keepe your *grounds* drye. If *March* follow his kinde, and *Aprill* drye, overflowe it with *Cleare-water*, that it receive no drought: for, all men know, if the *Spring* bee drye in *May*, it's two to one *Haye* never goes a begging.

Amongst other things, an olde *Drunkard* once warned mee, I should not suffer the roofe of my mouth to bee drye: yet I never followed his example: I remember the *cup* was never from his mouth, and hee in the end dyed of a dropsie: so, in *claye-ground*, in the heate of *Summer*, drowne it moderately: and, (it beeing once sufficiently seasoned in *May*) you need not drowne it untill a day, two or three before you mowe. At which time you provide for mowing, if sufficient *showers*, have not quallified the drought of your ground; let downe your *sluce* into your *trench-royall*, that there-by you may command so much water to serve your turne as you desire. Which *Trench-royall*

WATER-WORKES.

royall running on the plimme or leuell, suffer it to discend, where you meane first to mowe, and you shall finde this manner of drowning in the morning of your mowing so profitable and good, that commonly you gaine ten or twelve dayes advantage in growing: for, drowning before mowing a day, two, or three, so supples the ground that it doth most sweetly release the roote of every particuler grasse, although the *Sunne* bee never so extreame hotte: otherwise, if you drowne not before you mowe: you mow one day, you ted an other, you spend one in gathering it into *winde-cockes*: and with-all, stand upon the uncertainty of the weather, whether you dare adven-ter to breake your *cockes* or no. Beeing broken, they must have a drying-time before they can bee put into greater *cockes*; and then opening them againe into the last and greatest, by *tedding*, *gathering*, *cocking*, *recocking*, and *treble-cocking*, your haye continuing above a *weeke* on the ground; the ground being bare, and induring the heate of the *Sunne* at Mid-summer (in the hottest time) it doth so drye and parch the ground, that if the

How profitable to drowne a little before mowing.

WATER-WORKES.

Signes
of well
seasoned
grounds.

heavens yeeld not more *raine* then is necessary for a *Common-wealth*, you *later-mathes* will proove unprofitable: where drowning before mowing, will make good a second mowing: and in walking over grounds I will tread as on Velvet, or a Turkey Carpet.

This *Drowning* before *Mowing*, puts *wormes* to execution, or forceth them to flye from their habitation: for sure I am that that ground will not bee troubled with them untill they raise a new generation; and that cannot well bee in those *grounds* with-out great store of heate? which if it happen, to what end serves your water, but to season the ground againe. The *Summer* may bee so extremely hotte as the fervencie thereof may force you to double or trebble drowning; yet I would wish all those that have not the true understanding and use of the water (before they put this in execution) to enquire where any such worke is; and having found the place, to observe the *Weare* that commands the *River*, and to note the length of the *trench-royall*, and plimme thereof: what *stankes*, *lists*, or *trenches* bee within the

WATER-WORKES.

contents of the *grounds*: and, having found your *drowning*, and fore-recited *trenches*, observe what height every *stanke* or *damme* is: and if you can see the flouds playing against the *damme*, your experience in beholding it goeth farre beyond mine.

I will not forgett the *two-foote-trench*, topping your *Maine-river*, with-in foure, or five foote from the Banke, as occasion is offered. The use of which *Trench* so neere the *River*, many may wonder at (as many have done) why it should bee drawne so neare the *maine-river* it being but two foote broad and one foote deepe.

I know not how all *Rivers* and *Brookes* runne else-where, but in that which I labour, the *ground* is much higher on the *River* side, then the *maine-flatt-bottome*, and, where by *sluce* I drowne some thirty *Acars* upon a reasonable levell; yet upon the *River* side the height is such, as my *sluce* will doe no good, if I suffer the water to descend into the flat bottome, not taking the advantage in the beginning of my *Topping-trench*.

If part of your *ground* bee drownd, and some part forgotten, there is a fault somewhere; either by ignorance, or negligence,

IOI

OR

A fault to drowne some, and to leave some of the same ground undrowned.

WATER-WORKES.

or both : but to helpe both ; I pray you forgett not to runne this trench, topping and braving your River, that in the *Winter*, you drowne that with the rest.

In *Summer*, your commaund is more absolute, it beeing shelving or descending to your *flatt-bottom-ground* ; you may with a boord of two foote broad, and one foote deepe, stay that water, and suffer it to play upon the face of the ground, halfe a quarter of an houre, or little more, untill it meete with your flatt bottome.

And thus you may handle the *braveing-trenche*, by drowning the shelving ground every morning in the heate of *Summer*, before and after mowing ; so long as you finde the *Sunne* forceable.

Your *flatt-bottom-ground*, beeing, in the heate of *Summer*, drown'd, suffer the water from your shelving or descending *Trenche*, but to kisse the hand or foote of the same : for it beeing claye, and once drowned, before mowing in the extreame heate, it will not endure a second drowning with-out danger : unlesse the heate doe so extreamlye increase, that one extremitie must incounter another.

So, you may fall to double drowning
(if

WATER-WORKES.

(if there bee cause) which you shall easilye finde by trying the temper of your ground, thus :

If a riding rodde (beeing some-what stiffe) will enter into the *ground* two foote deepe or more, it sheweth it hath had moysture sufficient by the former *drowning* ;

If the rodde will not enter in, but by difficultie, or forceable handling, you may judge it to bee over-dryed : And in this manner make tryall in what state your ground stands, whether too drye, or sufficiently seasoned.

If to drye, give it watry sustenance to nourish and revive the dying roote : and, having satisfied your ground, suffer your *two-foote-trench* to have a continuall course of water, *Winter* and *Summer*, for these reasons following : That is to say ; In *Summer*, when you would drowne, your *trench* beeing full, you neede not staye the letting downe of a *sluce* out of the maine *River* : for, so shall you staye the time untill your water rise to the highest of your *sluce* ; and beeing risen, must have a time to come into your *two-foote-trench*, to execute what you would have done : where

You must double drown in the summer if there be cause.

WATER-WORKES.

otherwise, your *trench* beeing continually full, you may (as I sayd) appoint your *servant* with a boord to stay or stoppe the *trench*; and so from place to place, drowne your shelving or descending ground from the beginning of your *trench*, to the end thereof both daylye and hourelly.

This *Topping* or *Braving-trench*; hath this excellencie with-all, that it running continually in the *trench*, frees your *grounds* from *Moules* or *Wants*: for they will not worke in water.

Wants will
not worke in
water, nor
where it
soakes.

If they desire to fall into the midst of your other Meades, they must undermine the *Trench*, swimme the *Trench*, or some way shuffle over.

If they do; see their danger: they being once found to worke in the belly of your *Mead*, they bee subject to death, by your commanding the water from your *two-foote-trench* to descend on the rere-ward; the sodaine course whereof comes so fast uppon them, and they wanting *foot-manshippe* to rescue their lives, are overtaken, to their utter overthrow.

Suffer not one Moule, or Want to live betweene your *two-foote-trench* and the maine River, which is not far distant.

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They having no great scope to worke, will so undermine from the brink of the maine River to the brimm of your Trench, that in your drowning-time, in the heate of *Sommer*, you shall finde so many *Springs* from their *working-holes* into the River, which if you stop not, with great care, in finding the places of breach, the most part of your water will runne into the River idely.

To speake of the *braving-trench*: Beginning at the *Commanding-weare*, or Scluce, it works this effect: if the violence of the flood should bee such, as uppon a sodaine, your hay at *Midsomer* should be drowned by over-flowing the banke, or in your *After-math-time* the like should happen, it is at your choice whether you will suffer that inconvenience or no: for the Earth taken out of your two-foote *Trench*, beeing throwne on the one side of the same, raiseth the *Ground* higher then that beyond the River, by two foote at the least: which forceth the Floud altogether, on the other side, and keeps your Hay and After-math ever in safety.

This *Topping* or *Braving-Trench* must runne to the lower part of your *Groundes*,

The Offices
of the
Braving
Trench.

WATER-WORKES.

as a hand-maid to the maine River, to attend your pleasure *Winter* and *Sommer*.

I would have you suffer some Water to runne therein continually: Which continually running will scowre your *Trench*, and lett all filth from falling therein: and if it should fall you are driven to often cleansing it.

Beeing sometimes with Water and sometimes without, the Mole or Want instantly possesseth the same, and workes along the Trench an Arrow shoote in length: And it beeing so exceeding moist, makes many Holes, cleane through into the maine River, and at your next turning in of the Water will it issue out at every particular Hole; and your Trench, beeing but foure or five foote from the River, the Ground beeing too much moistned, falleth or calveth downe into the same.

It's not sufficient when you have conveyed your *Water* from your first *Sluce* into the *Body* of your *ground* or *braving-trench*, then to give it liberty to runne a-heade: for so will it fall into the lowest part; but you must govern and lead it, beginning at the highest of the *ground*,

WATER-WORKES.

unto rising places, and so suffer it to descend against some Stanke, or Damme; which you must raise as occasion shall bee offered: As this; if your *ground* falls so much that the course of the *water* offers to runne into the maine River againe, before you have done with it: Raise a Stanke a foote, two, three, foure, or five, or so many as may stay it to the height you desire, and force the same against the Ground unto your lower Grounds; and so continue it playing from Stanke, to Stanke, from the beginning to the end thereof.

So, shall you bee sure by raising of these Stankes or Damms, to stay all the substance of substantiall *Waters* which is forced by your *Weares*, or *Sluces*, into the body of your *ground*, there to remaine: whereif there were no Stanke or Dammne, the water (running headlong into the lowest part) carrieth the substance so mainly forward, that little or nothing at all wil be left upon the face of the ground to nourish the same.

Now to furnish you with the present understanding, how to make your Flanks or Dams; in what place, and how farre
you

How to
governe and
lead the
Water from
your braving
Trench over
your
grounds.

How to make
your Stanks
or Damms.

WATER-WORKES.

you would have it drowned ; repaire into the lowest part in the beginning of your uppermost ground ; where if you desire to pound it to such a hight ; pitch your Levell there ; which Levell (or Instrument) I will make knowne more familiarly unto you in the Mapp of my Worke, (which you shall find in this booke incerted) and commaund your servant to hold some staffe with a paper bound about, some two inches broad : and looke through your Levell from the lowest part of your Ground, unto your desired place. In this manner your Levell will assure you how to cast your *ground* to an inch.

And when you have truly learned to Level, which in one hour I will undertake to teach you, you may range over the Kingdome as principall *survayors* of Rivers, Brookes, Fountaines, and Springs, and accuse the best wits of the greatest negligence, in matter of the greatest *Common-wealth*.

It hath beene sayd by some, *Water-workes* be chargeable and dangerous. They' bee so ; for if you adventure to commaund maine Rivers, as *Thames*, *Severne*, and the like : you may judge
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Water-works, be most chargeable to the Ignorant.

WATER-WORKES.

with what difficulty it will bee done. In their beginnings Breadth and Depth is increased by a number of small Brookes, the Commaund therof goeth beyond the estates of the most men : yet there is no River in the Realme (be it *Thames*, or *Severn*) where there is any descent, but that I wil steale, by *Counter-trench* (when the *muddy floud* is level with the bank) so much water as I desire.

If you aske mee how *broad*, and deepe the *Trench* must be: I would know what quantity of ground you have to drowne: if much, your *Trench* must be the wider and deeper. I need not putt you in minde to raise a *sluce* on the mouth of your *trench*; if you do it not, common inconvenience will compell you.

You will never drowne so oft as the floud riseth to the height of the banke, because of your Hay & after-math in *Sommer* : Therefore as I sayd, you will be compelled for your safety-sake to Sluce your *trench*.

As your *Trench-royall* feedes your *shelving-groundes* and falls into the *flat-bottome*, and rising to the height of your first, second and third *stanke*, with the

Your Trench must be made great or small according to the quantity of ground you are to drown.

WATER-WORKES.

rest; take heed the water exceed not the height of any of your *stanks* or *damms* a hayrs-breadth: for the force of the *water* and violence of the *winde* in a furious tempest, will over-throw it, as if the Canon plaid against it.

I have forborne to speake of my *Stank-Royall*, which is of purpose prepared to intertaine the *Trench-royall*: which *Trench-royall*, in the continuance of his running, undertakes the safe conduct of three *Brookes* and some *Springes* withall to the *Rendez-vous* or place of generall *Consultation*, where their imployment shall be; whether against the *Stanke-royall*, the *Maine-stankes*, the *Counter-Trench*, or the rest. But indeed the *Stanke-royall* intertaines all commers, the *Trench-royall* and her *Hand-maid Brookes*: and forceth them seaven foote in height.

The advantage wherof, drowneth sixe-score Acres in three houres, and twenty Acres in the retorne backe.

In a *Counter-trench* forty Acres; in a *Traversin-Trench* twenty more; in *Sommer* and *Winter-Trenches*, twenty; in double and treble *Trenches* (and the rest) twenty more.

Sixe-score
Acres may
be drown'd
in three
houres.

WATER-WORKES.

Take upp the *Sluce* which commaunds the *Stanke-royall*, and in one houre, my *Ever-lasting Trench* conveyes the *Trench-royll* and all the hand-maid *Brookes*, into the maine *River*: and (for ought I have heard) after I gave it passe, it had peaceable progres into *Severne* without examination.

I will acquaint you with a manner of drowning which you may very well like off.

If you will handle two or three hundred Acres of Ground you shall dayly drowne *Winter* and *Sommer* for ever, some part shelving or descending and the rest *Flat-bottome*, devides by *Defending-Trenches*: For, cleare Water will supple your *Shelving-Ground* if it continue thereon sixe or seaven dayes; But, ther's a discretion to bee used; Therefore I advise, as you drowne the *Shelving-Ground* with cold and cleare *Water* in the cold of *Winter*, suffer none to fall into the *Flat-bottome*; but, your *Muddy-flouds*: For you well know, that the water passing downward, doth indure most violent labour in running: and beeing sodainly taken away, it doth sodainly drye, and

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none at all remaines to infect the ground.

If it steale into the *Flatt-bottome*, the coldnesse of the *cleare-water* with the coldnesse of the *ground*, in the cold of *Winter*, wanting the heat of the Sunne to dry it up (it being lodged in so plaine and pleasing a place) will venture life to raise the *rush*.

Now, seeing I have spoken of the excellency of *drowning*, I will speak somewhat of mine ambition therein.

THEr was never *General* of an *Army-royall*, nor Admirall of an Armado, more ambitious, then I have beene in braving my *Trench-Royall*: And wearied with over-walking my selfe therein, I repayred to my *stank-royall*; and I beeing raised seaven foote in height, I was so possest with the pride of my *walke*, that I thought my selfe fitter to bee Governour of a Towne of Warre, then Commaunder of a hungry *Water-worke*.

But' remembring (within the compasse of my age) a Greate Person stood to bee Generall of an Armie, that never saw the

The Rush
will be raised
by over-
much mois-
ture.

WATER-WORKES.

the face of the Warre nor never fought Combat with an Enemy ; A Councell of Warr beeing called, it was answered, by a Grand-Captaine, hee had neither the Words, nor Art of War : Therefore dangerous for the State to adventure the Kingdome to try his experience : The rest more under-valued him, Saying hee were fitter to bee Chauncellor to a Lord-Bishoppe then Generall of an Armie-Royall.

These their censures, fortified mee in mine old labours : So by little and little, I forgatt the Ambitious Resolutions of the Honourable Warrs, and the Pleasures of a Parke (withall) wherin I yearely killed at least twenty Buckes and Sores.

The love of my *Water-workes*, stole my desire from thence, that in the whole number of twenty yeares, I cannot say I was at the killing of one *Bucke*, although my *Parke-pale* came within twenty foote of my *trench-Royall*, having some yeares twenty *Buckes*, killed with a kennell of *Hounds*, and loving the sport as much as he that lov'd it most.

The Maister of a *Water-worke* may well bee compared to the *generall* of an
Armie,

Sharp censures made me fal blountly to my workes.

WATER-WORKES.

A maister of
a water-work
compared to
the generall
of an army.

Armie, which having beleagred a *Towne*, it behooveth him for their safetie to *fortifie* and *block* all *passages* and *In-roads*, that the *Enemies* sodaine *Alarum* annoy them not: So, must the Maister of a *Water-worke* attend every *shutt*, and *shower* that threatens excesse (whether in *mid-day*, or *mid-night*) commanding his *Centinell-Servant* to search the *sluces*, whether they bee up or downe.

If it happen before *mowing*, or in your *after-math-time*, take up the *Sluce*, and give it passage into the maine *River*: for, the sodaine *over-plus*, your *Trench-royall*, will convoy into your *everlasting-trench*; unlesse, your desire be to over-flow some parcell of *pasture* or *meade* thats over-eaten.

I protest it hath beene more grievous to mee in *Summer-season*, to see a *muddy-floud* run idle with-out command, then to see a lustie wanderer quarter the *country*, with-out being put to worke. Touching the offices of my number of *sluces*; the first commands the *main-river* in the beginning of my *Trench-royall*. The second, commands the maine *River* into my *braving-trench* some halfe mile lower. The

The severall
offices of the
sluces.

WATER-WORKES.

third, commands the same *River* a mile below, at the lowest part of my *ground*: So, you see, that within the running of two miles, I plant three *sluces*; the maine *Silles* being forty foote long. The reason why I planted so many within the length of two miles, was this: the *river* being thirty foote broad, and ten-foote deepe, my *Trench-royall* beeing but ten-foote broad, and foure-foote deepe, it received no more *water* then the breadth and depth would give leave.

Not-with-standing the quantity of *water* my *Trench-royall* received, I did not find the want of any in the *maine-river*; which caused me to raise those two other *sluces*: grieving so commodious an Element, so rich and substantiall, should fall into the *Bowels* of the *sea*, with-out profit. I call that a *Trench-royall*, where part of the *maine-river* is commanded by *sluce* into it. I call that a *counter-trench*, where part of the *river* is stolne in by the rising of the *flood* to the levell of the *banke* with-out *sluce*. My *topping* or *braving-trench* is that which *hand-maides* the *maine-river* (side by side) unto the end of the *worke*. The *Winter* and *Summer-trenches*, bee those that

What
a trench
royall is.

What
a counter
trench is.

What
a topping
and braving
trench is.

WATER-WORKES.

What
the winter
and summer
trench is.

What double
and treble
trenches
require.

water the *grounds* in the *Summer-time*. Having drownd with *cleare water* a parcell of *ground*, it being satisfied and forsaken, I furnish the rest of my *Trenches* with that *water*, untill a *Meade* of thirty or fortye *Acres* bee sufficiently seasoned. You must know, you cannot drowne so many *Acres*, not having the advantage of these many *Trenches* and *Lists*, unlesse your *ground* bee all *flatt-bottom*; having a stoute and strong *water* with-all. My *double* and *treble-trenches*, require a parcell of plaine *ground* containing fortye *Acres* or more. At your *turning-water* in, it will hardlye dispeirce over the whole; the weakenesse thereof is such in *Summer-season* if it bee not holpe and assisted with *Summer-lysts*, that runne the length of the *land* you labour in. You may raise the *Liste* in this manner; In the midst of the *Meade*, in place of best advantage, force a couple of *Furrowes* of each side with your *Plowe*, encountring each other; cleanse those *Furrowes*, and place the earth above: by this meanes your *List* falls out to be a *foote-path*, when both sides of your *ground* are drownde, *Summer* and *Winter*.

This manner of *speaking* may seeme

WATER-WORKES.

strange unto you ; But, if you did see the manner of the worke, you would say it could not bee otherwise exprest.

The *traversing-trench*, is, that which receives the water from the *counter-trench*; and the *Stanke-royall* (running on a whorle, his *sluce* being taken up) is received by a *Bastard-sluc*e, which doth disperse on both sides the *Trenche*; and that's the cause I call it a *Traversing-trench*.

My *everlasting-trench* endures more trouble then all the rest: the *Trench-royall* running at a floud-time (as a *shipp* under-saile, beeing Admirall of the rest) and having determined of all the duties of the severall *Stankes*, *Trenches*, and *hand-maide brookes*, they humble them-selves to the *Stanke-royall*; and prayes no longer continuance there, then they proove profitable to that place: which is so long as they carry filth in their *fore-heads*, (I meane a muddy floud) and declining to a *cleere water*, the *everlasting-trenche* receives it to his common *course*, with as much joye to the Maister as may bee.

I cannot well give significant names to all those *Trenches*, which I call *troublesome*; therefore I pray I may bee borne

What the
traversing-
trench is.

What the
everlasting-
trench doth.

WATER-WORKES.

borne to speake of them at this time. I had almost forgotten to make a true report of the *everlasting-trench*: it's but a *bastard brooke*, falling from my *Parke* into the mouth of my *trench-royall*, and his course stopt by a *Weare* or *sluce*, not inferiour to any in the *maine-river*. This *bastard-brooke* is commanded by that *sluce* to attend the *trench-royall* to the *rendez-vous*, or place of imployment, drowning altogether, which descending against the *stanke-royall*, is forced into his *ever-lasting-course* againe.

Against another *Weare* or *sluce* (comparable to any of the rest what-so-ever) you shall understand why these two maine *Weares* or *sluces* bee planted upon so beggerly a *brooke*: the *trench-royall* crossing the *brooke* so farre as the *ground* extends, must either have passe in the end (which cannot bee with-out leave of the inhabitant belowe) or forc'd backe againe over the first *Weare*, three mile above; which may bee: but the purpose is, the *everlasting-trench* shall have an everlasting continuance, to receive the *Surplus* of the *floud-water* for defence of your *Hey*, and *after-math*. The ancient bredth and depth

Wherefore
the Weares
or sluces are
planted.

WATER-WORKES.

is enlarged: for, that the *floud* being drawne into the *Trench-royall*, must fall into this *everlasting-trench*: and being enlarged, the *trench-royall* intertaines it without prejudice to any of the *grounds*.

My lasting discourse hath almost done with my *everlasting-trench*. As the *trench-royall* commands the *everlasting-trench* to the *rendezvous* or *Consultation-place*: so the *counter-trench* hath the like command else-where. And as the *everlasting-trench* is sluiced to give passe to the *trench-royall* to the lowest part, so I place one other *Bastard sluice* more; which receives the *counter-trench*; and many times, both *royall* and *counter-trenches* meete against that *sluice*; which to his power, doth yeeld as much profit as any in all my *workes*.

If your *grounds*, at any time, be so hard frozen, as the hardnesse thereof is like to continue, such a *snow* may happen upon your frozen grounds, as may remaine thereon so long as the extremity of wether indures: or so long as you and your cattell will be weary off, which to prevent, let downe your *sluces*, drowne the frozen *grounds* when the *snow* begins to fall: so
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What is to
be done in
hard Frosts,
and great
snowes.

WATER-WORKES.

shall you release the grasse being bound, and spend the *snowe*, which threatens your prejudice, and free your grounds, that all kinde of cattle, (Sheepe especially) may have sufficient sustenance therein.

My *trench royall*, from the beginning to the end, is three miles long; it runnes so precisely on the plimme or levell that every fifth yeare I am driven to cleanse the *channell*: such store of *muddy-substance* is forc'd by my first *sluce* therein. As the River *Nilus* drownes *Ægipt* from the *Abissine Mountaines*, enriching the *countrey*, to the wonder of the world: so doth the muddy-flouds from the upper part of the *Golden Valley*, (as from a *Golden Mountaine* or *Fountaine*) improove my estate beyond beleefe. It's not unknowne to my neighbourhood my *demeasnes* at *New-court* was set and forsaken at forty pound by year, besides my *Parke*, I set it so my selfe, & let any man, that hath an upright judgment and equall eyes in his head, view and review it, hee will say it will yeeld within three yeares, three hundreth pounds yearely, besides my *Parke*. Many have said to me, no other mans grounds lie so convenient to drowne

WATER-WORKES.

as mine at *New-court*. I answered them, yes : for, three other livings of mine, afford the like advantage for drowning. The *Vale* is but seaven mile in length, and not a mile over any where. Yet there be diverse Gentlemen therein, whose livings might bee bettered, some a hundred, some two hundred pounds yearly : amongst the rest, there's one that dwells on my right hand : the *River* devides our *demeasnes*, who might stock his *grounds* with *stankes*, *trenches*, *lists*, *bastard-sluces*, and such inventions as the *ground* requires ; being all *flat-bottom* : and I truly take it, he may drowne foure hundred *Acres* with lesse charge tenn times then mine : not having one *Maine-Weare* or *Sluce* to rayse : For, those I have planted, serves for both *grounds* : but whether it be his ignorance in not understanding, or negligence in forbearing, I know not ; but, I am sure, it's out of his way an hundred pounds a yeare.

There is another Gentleman, who dwells on my left hand, makes shew of understanding it ; yet are his *grounds* over-howed with the like neglect : but

The Golden Valley is but seaven miles in length, and one mile broad.

WATER-WORKES.

seeming to excuse it by some unexpected troubles (which indeed hee indured) & that his weighty occasions would not give him leave to under-take, nor suffer his servants to attend it, hee having in the eye of his *house*, a hundred *Acres* of errable land, worth not above three shillings an *Acre*, which amounts but to fifteene pound a yeare. Yet I made him this offer, if he would bee pleased to make it plaine, as plaine might bee, for foure yeares, I would give him fifteene pound a yeare, beeing the true valew of his land: and after the end of the foure yeares, I would take it for one and twenty, yeelding him a hundred pounds a yeare, the charge wholly mine, in raising *sluces*, *stankes*, *trenches*, and what else so-ever: so, during the foure yeares, hee should receive fifteene pound a yeare; and ever after, a hundred pound yearly to him and his heires for ever.

A liberall offer refused, which if taken, had benefited the offerer more then the offered.

I did not require any thing untill the foure yeares were expired, and then my demaund was but three hundred pound.

The year following, one hundred came in unto him againe, the second, an other hundred, & the third he received another;

WATER-WORKES.

so in 3. yeares, he received his three hundred pound.

He offered me nothing, and hee hath done nothing ; so this is but an accusation for negligence, setting it forth in as friendly manner as I may. O ! if the Lord of a Mannor did but know what an offence it is to plant an *under-shot-mil* upon a River, where the scituation of the soile affords drownings: He were better to put his wits aworke to make *Windmils* in plain *ground*, if hee would consider what hee looseth by it.

For example ; my right-hand-neighbour having such a *Mill* as I speake off, worth some tenne pound by yeare, and four hundred *Acres* of excellent *ground* to handle: hee forbeares his *Winter* and *Sommer* drowning, to give satisfaction to this unsatisfiable glutton the *Under-shot-mil*, where, in the trunesse of husbandry, hee should dayly drowne three hundred *Acres* for ever.

As the *Sun* shines ever once a day in *Alexandria*, by reason whereof the Land yeelds sweete increase ; so might he say he dwelt daily in the Land of *Canaan*, which ever flowes with Milke and Hony.

WATER-WORKES.

And as the greatnesse of the *Turke* obscures the *Persian-glory*, or as the *Hungarian* forces are the only Obstacle, hindering the *Turkes* descending to the conquest of the *Christian* Kingdomes; so should his *stankes* or *Damms* incounter the downefall of the *Muddy-flouds* from the *Mountaines* of great *Cadwalleder*.

Thus much to incourage my neighbour for the undertaking of *Water-workes*.

The length
of the Trench
Royall.

My *Trench-royall* beeing three miles long, and running plimm or level forward and backward; I plant divers *Bastard-slucers* crosse the *Trench-royall*, for *Winter* and *Sommer drowning*.

The breadth
and depth of
the Trench-
royall.

If any man will bee so phantasticall as to carry his wife leuell by water to her Dairy, or build Barnes and Cattell-houses over the same for ease of his Oxen, I refer my selfe to his consideration whether it be not possible; the *Trench-royall* beeing tenne foote broad, and foure foote deepe. Likewise if by Boate you will carry *Compost*, *Corne*, *Hey*, *Wood*, *Stone*, *Milke*, or any other, *Provision*, its referred to your like consideration. I made two litle Ones for the carriage of earth, which I found to doe mee such service, as I know two

WATER-WORKES.

Teames in a day could not countervaille any of them.

Their burden beeing but two load a peece three servants commaunded them both, in ; their charging and discharging : their length being twenty foot ; the breadth but three : Had I a Boate with a Keele five or six & thirty foot long, and nine foot broad, I would carry seaven or eight load of Compost at a time ; Corne in Sheaves would conveniently bee carried ; but how many load of Hay, at a time, I can but gesse : You must at al times examine how your *Trench royall* is stored with muddy-substance ; it beeing furnished by the main River, every flood, every second, or third yeare it riseth in the bottom 2. foot at the least ; especially for a mile or two comming in at the mouth of the Trench, it doth fil the fore-part of the same : & unles you cleanse those parts you cannot receive so much water by 10. foot broad, and 2. foot deepe : the want whereof you shall find in your lower grounds. As the finest husband-men be most provident and studious to make their profit answer their labor ; so let not the charge of clensing the *Trench-royall* be

125 greevous

The good
service of
a Boat.

WATER-WORKES.

greevous unto you: in respect the recompence shall (much more then the greatest usury) outgo your laying out.

In the yeare 1601. I was forced to cleanse my *trench-royall*, being almost fil'd to the levill of the Banke, and for the excellency of the substance therein conteyned, all the dung-hils in the countrey can witnesse it was their very *quintessence*: the quantity thereof may be estimated by the breadth and depth; and I know five hundred honest Yeomen, Husbandmen, and Laborers would say, the Substance would over-countervaille the charge beeing imployed for Wheat, Onyons, Cabiges, Carets, or any other Rootes agreeing with the nature of that Residence of the *Trenches*.

Which *Muddy* substance beeing put on the one side of your *Trench-royall*, you may by Boat, carry to your *wheat-land*, to your *Garden*, or to better any other barren *ground* that yeeldes no profit: For, I will drowne *Winter* and *Sommer* at my pleasure, a thousand *Acres* of *Medow*.

I will sustaine no inconvenience at any time, unlesse the negligence of my servants suffer the *Sluces* to be upp when

WATER-WORKES.

they should be downe; or some envious, lewd, or malicious person, in the night-time loose them downe of purpose to harme me.

No Subject in the Kingdome can certainly say hee hath the like *Groundes*, unlesse he daily drowne as I doe. And for these thousand Acres I shall bee able to Mowe them twice a yeare.

If I please: The *rush*, the *Mosse*, the *boult*, the *hard head*, and many other unprofitable *wedes* craves mercy at my handes for their life in respect of their former offences; with protestation never to trouble the ground againe.

I doe not see why the *cowslip* should have more favour then the rest, unlesse it bee to countenance the *May-pole*.

I have not done all I can doe, I can Graze my mowing *Meades*, untill the first of *Maie*. I would see who can doe the like, without the hazard of his *Hay* that Sommer, unlesse hee follow my *example*. It may bee sayd by some among them-selves that you (neighbour) and I, may doe the like: But then, that You, and I must live by the Rivers of *Leadon*, *Dowbanke*, *Frommey*, or in the Land of
127 *Lombardy*,

WATER-WORKES.

In Lum-
bardy grasse
growes ap-
parantly
twice a day
being cut
twice a day.

Lombardy, where grasse groweth apparantly twice a day.

Those young Gentlemen that have scarce living ynough to maintaine themselves in the misery of this *Age*; should (if they did well) learne to levell and quarter a *ground*: then sell that little they have; and afterwards examine the *Records* in the custody of the *Clarke* of the *Statutes*; there shall they finde that *Clarke* to have more *Clyents* (in my conscience) then any Councillor in the Kingdome.

And for mine owne part (without vaine-glory bee it said) I am as well knowne in that Office as a better man.

(a) *Yronicé.* Thus, by taking paines, following the Ordinaries, and being acquainted with the Under-Sheriffs, & Atourneies of every County; those Gentlemen for a quart of Canauary-Wine, wil give you a *Kallender* of all (a) the Land-lords, that are beforehand with the World: In which if they deale not injuriously with you, you shal find my name. This done, examine the *Rivers*, *Brookes*, *Fountaines* and *Springs* in every County, whether they bee imployed or no. If they run idle, make your match

WATER-WORKES.

in the countrey you best like off; & I assure you, you shall find more Land to be sold utterly neglected (while the water runnes at wast) then a thousand such young Gentlemen I speake off, will buy.

I do advise all men that wil be *Undertakers* in this *Husbandry*, to bee perfect in the true Survey of the number of *Acres* that may be drowned; and that they make choyce (as neare as they can) of errable land: which commonly exceeds not two or three shillinges an Acre yearly. Old *Pasture* covered with *mosse*, that nature hath forsaken, and *Meadow-ground* (if there bee any) that takes more pride in the company of the *Cowslipp*, then the *gilt-cup* which carrieth the garland from the rest.

And for your comfort, (bee this spoken) if in the laying out of five hundred pound, at the end of foure yeares, you make it not two or three thousand pound, your choyce is bad, and lucke worse. During those forty yeares you cannot receive lesse then the rate you buy it att; which is twenty yeares purchase, or as you can agree: And so from five hundred to a thousand, two, three, or as much as your estate will stretch too; the more the better.

Nota.

WATER-WORKES.

If you finde difficulty in my discourse; any *Easter* or *Michell-masse* Tearme you shall finde me in the house of a true *Brittaine* (maister *Wotton* a Scrivener) in *Fleet-street*, over against Saint *Dunstans* Church. And for a Supper, at *John Gents* you shall have your Belly-full of *Water-workes*. For my *Drownings*, my name hath beene so scandalliz'd in open *Ordinary*, by a *Westerne Gentleman*, who, since the Kings Majesties comming, is become a Knight of account, but rash censure deserves little reckoning in mine account: Many men spake diversly of my labours for a long time, because the Honourable Courts (as they thought) had brought mee to *Beggers-bay*: and failing in the true execution of my *workes*, in not placing a Planke of foure inches thicke, and twenty inches broad, under the maine *Syll*, to prevent the water from undermining the same, and withall fayling to lay my *Groundes* (by the indiscretion of my Servants) leuell or plaine, and not understanding of what strength my Stanks should be to with-stand the weight of the Water that playes against them, & what allowance to give each Stanke in

WATER-WORKES.

his Foundation ; and forbearing the running of my *Trench-Royal* to the end of his *Course* for many yeares, and not thinking Stankes to bee necessary for the commaunding of *Grounds* disoebeying my desire, and withall (lately) running *Counter-Trenches*, which next the *Trench-royall*, have place above any ; which were not drempt off before ; many *sluces*, and for many yeares, were forborne in places most convenient, and much profit lost thereby: my speculation having continuance in practise above twenty yeares.

Twenty
yeares practi-
se in these
Workes.

But were it now to beginne againe, I would performe it in one : and raise it to the greatest profit in foure : so hard a thing is it for any mortall man to perfitt any profitable invention, without paines, cost, and continuance of time.

They say now, if Maister *Vaughan* had these & these *grounds* he would doe This and This. This opinion have I gotten in the *countray* where I dwell.

There is a *Shropshire* Gentleman (Maister *Hoord*) a famous man, his *labours* (I know) have taken tryall at *Envies* Barre, by ignorant *Jurors* and unjust *Judges* for a worke hee performed. It was chargeable unto

WATER-WORKES.

him ; the situation thereof was such as it could not be otherwise handled. I saw it, viewed it, and examined it; and I know it doth much more then countervaille the charge. But had I beene acquainted with him, in his first beginning, he should not have spent his time to so small profit: not that he mistooke in the handling therof; but knowing my owne errors, and by costly experience able to instruct him; I found no want of Arte in him, but the want of *Winter* and *Summer-water* to serve his turne.

I would have perswaded him to have forborn that barren *under-taking*, & to have gotten five or sixe thousand pound with ten times lesse labour, in the choice of a thousand places elsewhere, where hee might have drowned dayly for ever.

Muddy-flouds doe often happen in *Summer-time*. If the running of them idle bee so unto other men as it is unto mee, let them doe as I doe; ever have one pasture bare eaten: and as you keepe one speciall Chamber in your house to entertaine a *stranger*, so, you alwayes have one Pasture for that *muddy-floud*, which will pay you after twice twenty in the

Muddy
flouds often
happen in
Summer-
time.

WATER-WORKES.

hundred. It's confessed by all in the *Golden-Vale*, that that little land which wee have would be bettred fiftene hundred pounds a yeare. If the like were done through-out England, it would profit the kingdome in a yeare two Millions: which would maintaine an *army-royall*, to the honour of *Great Brittain*, and be most comfortable to all honourable *Souldiers*, Crest-falne for want of warre and military employment.

It pleased maister *Hoord* to view the place where my *Water-workes* were performed, accompanied with three juditious and understanding Gentlemen, namely, Maister *Brainton*, Maister *Pearle*, and Maister *Wolridge*; what their beleefe was, I referre it to those who have a desire to be informed.

Any Gentleman or other having performed a *worke*, and brought it to his absolute perfection; should not sit downe by it: but having finished that *Worke*, and being Maister but of one *Living*, I would (as I formerly said) advise him to sell it: and at the end of foure yeares make good account by purchase, to gaine sixe, if not ten for one. I have a Meade

Note the
profit of
drownings.

Note this
advice.

WATER-WORKES.

called *nine dayes-math* : an excellent Meade, and approved for such of all my neighbours. I sold the herbage thereof diverse yeares for five pound *per Annum* : but within few yeares, after the floods plaid upon it, I solde the Hey for ten pound yearly : and the latter or *after-math* was richly worth five. I will graze this Meade untill *May* : yet notwithstanding the Hey will yeeld me ten pound, and the *after-math* five. Now having (I hope) profited the intelligent Reader, thus far : al the favour I desire at his hands, in lue therof, is this, That I may have leave to give new names unto mine old *grounds*, without beeing laught at in *ordinaries* by scarce ordinary understanders. Some they must have ; for, those they had by drowning are covered with new earth. And with-all, they bee enlarged above two hundred *Acres*. I cannot call that the *nine-daies-math*, which now is above 30. (unlesse I should forget my counting-craft) nor that a *Moore* which is firme and pleasing ground ; nor that the *rushy-leasow*, which is reduc'd now unto a more fruitfull and profitable plot, if the *rush* appeare there

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again, he forfeits the Fee-simple of his life: so having my *grounds* devided into 12. parts, their *names* (under favour) be altered and now called in this manner: the *Pinck*, the *Gille-flower*, the *Carnation*, the *Rosemary*, the *Mary-gold*, the *gilt-cup*, the *Honysuckle*, the *Daysy*, the *Garland*, the *Eglentine*, the *Cowslip* & the *Primrose*. Some do say their Kine doe yeeld more milke having often change, then those that graze in only one pasture. I say nothing to it: but, beleeeve those dairy women that affirme it. This I can say, for any that desire often change, (as the most part would have fresh and fresh pasture) if they (being curious) will not bee coy to handle a Cow-shore in his kinde: then thus; When the Kine bee put over to some other *ground*, you know their staine or dung by heate of the sunne will grow hard: and within short time, will force a proud and insolent grasse; such as the Kine in their retorne will not touch.

When you turne out your Kine into fresh *feeding*; bee sure to disperce and sever those Cow-shares, that the place be not stained with any polution. They

The new
names of the
Meades and
Pastures.

WATER-WORKES.

Eye-pleasers
are often
liers.

being dispersed ; drowne your *ground* with cleare water : or mudd (if a *floud* happen) the ground being bare, two Blessings incounter each other, and purifie the place where the *Cow-shores* were falne : so, at the next turning in of your Kine, some fortnight after, they shall finde nothing to distemper or offend the taste : the water doth cleanse and cleare all annoyance to the beast, and breeds perfect life in every growing grasse. This last *Summer* 1604. in Trinity terme, being above at London, I came not downe till after *Mid-summer* : having grazed my mowing Meades too too long after *May*. Upon my returne, I enquired in what state my grounds stood, my servants answered they were sufficientlye seasoned ; but (in deed) they did (as many servants doe) report the best of the worst, to excuse their negligence : the Meades were not so sufficientlye drownd, as the necessitie thereof required : They being neglected before mowing, not trying their temper with a *riding-rod*, (my beliefe was so great in those greater *Liers*) but after mowing, the truth appeared, the quantity of *Meade* (in one place) being three score
136 and

WATER-WORKES.

and ten *Acres*, by reason of the mowing, making, and cariage, before the ground were free to drowne, the extremitie of the heate was so great, that the grasse turned yellow ; being tainted, as a *sheepe* on a drye *rotte* : or, as a man inlye sick, and newly recovered faules into a *relaps* againe.

In this manner my *grounds* had gotten the *greene-sickness* or a *burning-feaver* (I know not well whether) If in the extreame heate you would drowne with Judgement, you should not drowne in the heate of the day: but in the night from *sunne* to *sunne*. But being forc'd, I suffered the water to worke night and day ; the season of the yeare falling out to bee dry: the sunne extreamly hotte; the ground hott, dry, and hard : so what betweene the heate of the sunne, and heate of the ground, the water became luke-warme, and faild to effect that good which by Nature other-wise it would have done.

And if I be not deceived, the infection of the *earth*, had poysoned the *water*: or made it so sick, as it was not able to endure the *ground*. As a scudding shewer

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The quality
of ground
distempered
with heate.

of raine, doth raise upon a *dung-hill-poole* great bubbles (like an Oxe-eye) by falling of the drops thereon; or, as water in a pott, by the heate of the fire, doth labour, and shew distemper: so, did that water-worke, play, and bubble on the face of the *ground*, shewing (for a quarter of an houre) nothing but discontent.

The ground being qualified, the grasse did not instantly grow (as at other times, being orderly fedd) the coullour being changed, the grasse standing at the point of death, being in that case as a sicke patient having taken a purgation, who must have a time of recovery: so did the *grasse*, for diverse dayes, shew nothing but sorrow, heavinesse and all discomfort. It beeing once made yellow by the heate of the *Sunne*, and recovered of the *Yellow-faundies*, although the comfort of the water put life into it; yet, during the season, it had never his perfect complexion againe: the *point* ever carrying a shew of poysoning; which error (with Gods helpe) I will never committ hereafter.

Let all men *drowne* before they *Mowe*, and after Mowing, your grasse will not bee yellow, but as greene as a *Leeke*.

WATER-WORKES.

You must alwayes keepe your *grounds* in a true temper ; they must never be too wet in the Winter, but when you drowne; nor too drye in the Summer, having water enough. I had almost forgotten this ; before you raise your *stankes*, bee sure to cleare your grounds from *Moles* or *Wantes*, they bee dangerous creatures (like a Usurer that's hardly gotten out of a mans land, wherein hee hath gotten footing,) if they have possession in a *stanke*.

You know when all other grounds be drownd some part of the *stanke* will bee free ; they will not faile to rend and teare your *stanke* like Rabbets in a sandy soile. I protest two or three *Wants* in my *stanke-royall*, was out of my waye twenty pound a yeare, for many yeares. I put a fumbling fellowe to attend their walkes, who (not beeing cunning enough to destroy them) utterly plagued me ; until I hapned upon a good worke-man, who hath cleared my *stankes* & my *braving-trench*. And were it not for my *braving-trench* and my *stankes*, I should never need the use of a *Want-killer* ; because I do so oft drowne in *Winter-time* ;

Moles are mischievous vermin in or about such water-works.

WATER-WORKES.

time ; which often drowning doth force them to forsake the soile.

I would desire no better pastime then the hunting of a *Wante* in a plaine Meade. My *braving-trench* being close by the maine *River*: my *trench-royall* lying on the height of the ground: my servant seeing her cast, if neare the *trench-royall* hee commands water into a *descending trench*; and doth force her on the face of the ground with much submission, praying her Clergie: her offence being *Burglary* in breaking my *stankes*, although she were the first *meanes* that occasioned all these *under-takings*, yet I could not bee drawne to yeeld her a pardon: had she wrought in any other part of my grounds, I had not taken it so grievously: but, in spoyling my *fundamentall parts*, with working cleane through my *stankes*, and forcing them, by the extremitie of the water altogether doune, she was uncapable of pardon. If he that hath an *over-shoote-Mill* would enter into an account with him-selfe, whether it were more profitable for him *Winter* and *Summer* to drowne grounds, or to grind corne, it would put him to a pussle.

WATER-WORKES.

I know many men that have *Mills*, who for a desire to gaine a peck of *corne* a daye (and many dayes failes to get any) so that by a true computation, in the whole yeare, the *Mill* may bee worth some foure or five pound: and in drowning, foure or five acres of barren ground, I will raise a farre greater benefitt.

But because he wil give reputation unto his demeanes, or information on the marriage of his sonne, that hee hath such a *Mill*; hee had rather suffer muddy *Flouds* in the *Winter*, and cleare *Waters* in *Sommer* to breake their limbs on his *Mill wheeles*, then exercise his wits (by *Drowning*) to attaine a world of wealth.

It is grone to a kinde of proverbiall speech, in the *Golden-Vaile*, that *hee that doth drowne is a good Husband*: hee that may and wil not, is figured out with the sillable, *Fu*.

I know, I have as good an *Over-shot-mill* for *Water* ynough as this Kingdome yeeldes: yet rather then I would grinde my owne *Corne* at a floud-time, or in my drowning times in *Sommer*, I would carry it tenne mile off to be ground, though the Miller told the one halfe.

Drowning
more pro-
fitable then
Mills.

WATER-WORKES.

Beeing requested by many Gentlemen of the best quality, to putt these *Water-workes* in Print: I praied those ingenious Gentlemen, (Sergeant *Lovell* and maister *Coulthurst*) to speake what they thought concerning the same.

They both (under their handes by way of subscription) said ; it would bee very profitable to the Kingdome to be put in execution: being of late a common thing in *Devonshire* ; but, not in so ample manner.

For drayning of *groundes* Maister *Levell* is *Serjeant-Major* of the same ; yet Ile say as the meane *Counsellor* saith to the *Serjeant* at *Law* ; under favour (maister *Serjeant*) Ile declare what I didde in your *Element* of *Drayning*, beeing but *Cousin-Germaine* removed to mine of *Drowning*.

A *Ring* of *ground* (some foure-score Acres) scituate stirrope-wise ; a *Brook* in the upper-part crossing the same, in the smaller point of his extent, there running from *Adams* dayes in likely-hood: the greater quantity of the *ground* from the *Creation* never found : but stain'd with the *Boult*, the *Rush*, a *Quagmire* coherent, with many other *Improfitables* never

Drayning of
Grounds,
cousine-
Germain to
Drowning.

WATER-WORKES.

mowed, nor *grazed* in the driest daies, but knee deepe in water. It lay at the *gaze* for five thousand six-hundred and six yeares, and by general opinion it stood in state of damnation; as if it hadde beene curs'd like *Mare-mortuum* for the sin of *Sodom*.

When I hadde devided my sounde *Groundes* from those infected with leprosie; with as many *maister-trenches* as were needful to conduct my *Drayning*, *Sucking*, *Working*, & *Searching-trenches* into the *maister-trenches*; having but two foote descent to procure a passage; all this beeing performed; that spungy bogg draind, dyed and made fitt for any use: I drew the Brooke which crossed the upper point of the Ground downe into the belly of the bogg, to make privy search in every particuler *Trench*, what filth fell therein.

Livery and *Season* taken, Atornement of Tennants, Fealty, with all other Ceremonies that *Littelton* layes downe to raise *Uses*, *Customes*, or *Estates* of *Inheritance*, with payment of pence, and the strongest *Fortifications* my skill could afford for an everlasting continuance, and cleare keep-

Livery &
Season
taken by
the Brooke.

WATER-WORKES.

ing of the *Drayning, Sucking, Working,* and searching *Trenches.*

I protest I had almost forgotten this insuing most necessary *Invention.*

A necessary
Invention
for sup-
pling hard
Groundes for
easinesse of
Trenching.

I was in the Parish of *Peter-Church* to runne a *Trench-royall* some mile on the plimm: The Countrey-people made themselves beleeve it would cost mee a thousand Markes. Before I ran any part of my *Trench*: I planted my *Sluces* crosse the *River*, at such time as my *Sluces* were downe, the Water did rise to the levell of the *Greene-sward*: the *Sluces* beeing uppe, the Water suncke unto his ordinary course againe.

So hadde I the commaund of the *Sluces* to ryse and sinke the Water at my pleasure.

Having levelled the *Trench*: I put eight Labourers to worke therein, who, (during the whole day) wrought but one *Pearch*, which was but sixe foote broad, and three foote deep: To whome I said (when I perceived how little they had done in a day) I see now it's true, as the Country saith: It will cost me a thousand Markes ere I effect this Worke, if it go no better forward. They said unto

Country-
mens Con-
jectures ar
not alwaies
Oracles.

WATER-WORKES.

me they did their best indeavor : But after they had taken some halfe a foot of the greene sward (or face of the ground away) they could not force their *spades* or *spittels* one inch deepe, the hardnesse of the *Earth* was such : and wish'd mee to give over that under-taking.

It was some-what before *Michelmas* (the *Winter-raine* not having suppld or mollified the ground any whit at al) I commanded them to attend their labour on the morrow ; then did I cause them to run forty *pearches* in length, six foot broad, & but halfe a foot deepe ; which halfe-foote deepe the spades did easily enter : And so for that day, I ended with them. Then they demaunded what imployment I would putt them to the next morrow ? I bad them good night : and willed them to bee there very early in the morning. After they were gone I caus'd my man, to let downe the *sluces*, and raise the Water to the height thereof, and Sodainly the Trench flowing, it entred with such puissance as if it would have dissolved the very Bowels of the Ground. Then early before their coming my Servant tooke up the *Sluces*,
sunke

WATER-WORKES.

A notable
sodaine
effect of
Water on
hard ground
uneasie
to bee
Trenched.

The manner
of breeding
Calves.

sunke the Water, and gave it the liberty of the maine River, that they the next day, easily forced their spades two foote deepe and more. And in this manner, with the water, I suppld the *Trench* from the beginning to the end, & saved therby a hundred pound at least.

Many worthy and expert men have written of the breeding of Cattell, whose indeavours I much reverence, and referre them to bee commended by Posterity : Yet, will I venter to lay downe mine experience in the younger sort, for the *Falling*, *Weaning*, and *Raising* of Calves : which (breefly) is this: Those Calves you meane to breed: a month before they fall, lett your Cow or Kine bee well fed with good Hay, that she or they may be the better able to bee delivered of them, and to yeeld plenty of Milke: Uppon their first Calving, suffer them not to have too much milke for three or foure dayes: For in over-sucking them-selves, they will bee so glutted with the plenty and newnesse of it, that nature in them will bee overcome, & be subject to Gillying or Scowring, which wil hinder them for a long time. When they bee five or sixe dayes

WATER-WORKES.

old, let them sucke as much as they can: When they come to bee a month old, provide a *Cratch* for fine *Hay*, and a *Trough* for cleane Water, although you have no meaning that they shall sustaine them-selves thereby: but to prepare and acquaint them (in a wanton manner) to learne to eate *Hay*, and drinke Water. Dayly they will bee nibbling with the *Hay* and Water as desirous as some idle persons bee of *Tobaco* and *Ale*.

When they bee eight weekes old take away the Milke of one Teat from your Calfe in milking your Cow before the Calfe bee suffered to sucke: the want of which Teate (for hunger and thirst) will provoke both your Calfe to eate *Hay*, and drinke Water. Continue him so for foure dayes; then take away, or milke one other Teate from your Calfe as aforesaid, which is halfe the Milke; so, will you force your Calfe to a greater desire of *Hay* and Water: After this, take away the milk of another Teate within foure daies after; and so after that take away all. Handling the matter in this manner, your Calfe will never mourne, for want of Milke or losse of *Damme*, but will cheerfully

How to
learne them
to eat *Hay*
& drinke
Water.

WATER-WORKES.

What you
must do
when you
purpose to
turne them
to Grasse.

fully fall to eating of Hay and Drinking of water immediately.

Let your servants be very carefull to litter them with cleane Straw dayly, and keepe them sweete with good Hay : and let them never want cleare water. If you have good scope of House-roome lett them run and play their fils : When you purpose to turne them to grasse, keepe them in the House uppon Hay and Water untill Mid-may : If you turne them out (as the most do) in Aprill, you undoe them : the nights being cold, the grounds cold, the grasse weake and raw : they never acquainted with the ayre, will mislike with your unkinde dealing : in token whereof the heyre will turne ; and their bellies loose, scowre, or gilly, that they never will be themselves : because the Sun hath not wrought sufficiently with heate to comfort the ground that should feed and comfort them.

When they have beene some month in your best *Meads* in *Mid-may*, and after recovered their strength : put them into some higher *Groundes* where there is *Grasse*, *water*, and shadow ynough : Lett them rest there untill *Bartholomew* : then

WATER-WORKES.

put them over into your *After-maths* before the time of the yeare growes cold, and then it wil so puffed them with pride that al the *winter* following they wil scorn the malice of the hardnesse of the Season if they may have their fills of Hay, and fogg with a Hovell or House in the extreamest cold daies to shelter them.

The first yeare beeing spent, every man knowes how to handle them: If you will have them principall cattell, give them hay ynough the second *Winter*.

But what a Calfe am I to teach Countrey-men to breed Calves by *Art*, when they (good Husbands) breed them fast ynough by *Nature*; I therefore bequeath this Doctrine to Gentlemen that can better tell how to breed a Hound then a Calve; and referre what else might be spoken, to the discretion of the experienced.

Thus have I *tought* what I *handle* with as much *brevity* as I could: ommitting nothing that may give evidence on the behalfe of those *Perticulers*, which will fall out to bee as true in *effect* as in *ap-parance* when ever they are put to their strictest *Triall*.

Husband-men breeds Calves by Nature.

WATER-WORKES.

Therefore, now nothing remains more to be said; but to intreat thee (friendly Reader) to beare with my *merry-sorry* Stile, if therin any where I have not observed a precise scholler-like *Decorum*: for *Mars* his *University* (wherein sometime I have bene matriculated, and proceeded to some degrees of *command*, according to my study and time spent therein) affoords no rules of speaking in Print, yet Soldiers (in their *Element*) best speake in Print: and can expresse what else lies in the compasse of their spacious *conceits*, like men of *Wit*, *Arte*, and *Courage*; which they that speake altogether by the Booke, oft faile to performe. But howsoever, as this *Worke*, now finished, is published for thy *profit*, and exprest in such manner as I thought would yeeld thee most *pleasure*: so thou wilt accept it kindly, and thereby give me cause to be ever studious of thy benefit.

Principally, though lastly, I am humbly to intreate you (my good Lord of *Pembroke*) to looke on my *plainnesse*, and winke at my *boldnesse*: the first, proceeding from my *Nature*, the last, from my *Education*:

WATER-WORKES.

Yet, what is here *bluntly* expressed, was first of all *sharply* conceived, with much whetting of Witt, and no lesse filing of Invention. But what it is, it is all Yours, as he is, that will no longer *bee*, then he remaines

Your Lordships even
beyond his uttermost.

Rowland Vaughan.

Those that are desirous to see a *Mill* sawing Timber, there shall their desires bee fully satisfied, seeing a *Mill* by a *Water-course*, keepe a dozen Sawes on worke together. As also by the like streame of water, a dozen Spitts or Broches turned at once. Which turning, turnes all Turn-spit *Jacks* out of countenance, though they be never so sawcie, and their tongues runne on Wheelles, yet, this *Water-worke*, workes them out of all favour with the Cooke, that loves to doe much with little labour, whom the *Jacks* distemper (which often happens) soone makes hott as a Tost, because (like a Cricket) he lives ever about Fyre.

The Conclusion.

THus runnes our *Water-workes* unto this *end*,
That all that *worke* by them, by them may *play* :
For, if they *Mossy-grounds* by them amend,
For *paines* and *pleasures* (then) they'l freely pay.

This *WORKE* consists not (like some idle *Tracts*)
In *shew* alone, or *Speculation* :
No ; this is *practicall*, faire *shewes* in *Acts*,
To make the poor'st, the *richest* Nation.

Then, chiefly amy'd I not at *publick-good*,
I would not thus divulge my private *skill* :
But, bee'ng *free-borne*, my Natur's like my Blood ;
Which would do *good* to all, and no man *ill* :
Then, *All* (I hope) or of that *All*, the *best*
Will wish me well : as for the *rest*, I rest.

Theirs as they give me cause,
Rowland Vaughan.

FINIS.

In praise of the Worke and Author.

TO praise a *worke* of such a *worth* as this,
That shews the way t'inrich both *earth* & *man* :
Deserves a *witt* that rare and excellent is,
And all to short, excell in what it can.
The *Author*, and his *worke* do merit fame ;
With-out the glory of a *Poets* name.

Anthony Davies.

*in the Countie of the summe of
40. shillings of lawfull money of England,
to be paid unto the said his
heires, executors, or administrators at the full
end and determination of five yeares next en-
suing the date hereof. To the which paiement
well and truly to be made, I the said Row-
land Vaughan, doe binde mee, mine heires,
executors, and administrators, firmly by these
presents. In witnesse wherof I have caused
this Bill, thus in Print, to bee made as my
Deed, and have here-unto set my name, the
xxix. of November, in the yeare of the raigne
of our soveraigne Lord James, by the grace
of God, of England, France and Ireland
King, defender of the Faith, the vii. and of
Scotland the xliii. 1609.*

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