

Political Arithmetick,

O R

A DISCOURSE

Concerning,

The Extent and Value of Lands, People, Buildings ; Husbandry, Manufacture , Commerce, Fishery, Artizans, Seamen, Soldiers ; Publick Revenues, Interest, Taxes, Superlucration, Registries, Banks ; Valuation of Men, Incresing of Seamen, of Militia's, Harbours, Situation, Shipping, Power at Sca, &c. As the same relates to every Country in general, but more particularly to the Territories of His Majesty of *Great Britain*, and his Neighbours of *Holland, Zealand, and France*¹.

By Sir *WILLIAM PETTY*,

Late Fellow of the *Royal Society*.

London, Printed for *Robert Clavel* at the *Peacock*, and *Hen. Mortlock* at the *Phoenix* in *St. Paul's Church-yard*. 1690.

¹ The long descriptive title was probably supplied by Lord Shelburne; neither the Southwell, the Rawlinson, nor the Sloane MS. has it. In line six 'Manufacture' should be 'Manufactures,' an 's' has dropped out.

NOTE ON THE "POLITICAL ARITHMETICK."

THE Political Arithmetick, like the Political Anatomy, belongs to the third period of Petty's literary activity and was written during his second prolonged residence in Ireland. The precise date of its composition cannot now be determined. The Rawlinson MS. is dated 1671, and in Petty's "Collection of [his] several Works" it is likewise entered under 1671¹. Lord Edmond Fitzmaurice accordingly says that it was written in that year², and his opinion is confirmed by Sir Peter Pett, who calls the Political Arithmetick a "manuscript discourse in the year 1671-2"³. But Petty's list is not infallible. It enters under 1654 the Discourse against the Transplantation into Connaught published in 1655, and under 1671 the *Anatomia Politica Hiberniae*, which was not finished before the close of 1672⁴. The date 1671 is, perhaps, that at which Petty began the Political Arithmetick. He was still working upon it at the end of 1672⁵, and internal evidence points to its completion not earlier than 1676. This internal evidence is drawn from three passages whose indications pretty closely coincide: 1st, the expenditure of the King of France "in any of these last seven years" is compared with his revenue "as the same appears by the book entitled *The State of France*...printed anno 1669"⁶; 2nd, "since the year 1636, the taxes and public levies...have been prodigiously greater,...yet the kingdoms have increased in their wealth and strength for these last forty years"⁷; 3rd, "his Majesty's

¹ Fitzmaurice, 318.

² P. 185.

³ *Happy future State* (written 1680), p. 106.

⁴ *Polit. Anat.*, note, pp. 122-123, cf. p. 197.

⁵ Letter to Anglesea, 17 Dec., Fitzmaurice, 158.

⁶ Pp. 252-253.

⁷ P. 271.

navy is now triple or quadruple what it was forty years since, and before the Sovereign was Built¹." The "Sovereign of the Seas" was launched 14 October, 1637². These three passages, which all point to 1676 or 1677, occur in the Rawlinson MS. as well as in the undated Southwell MS., and the 1690 edition. The opinion that the Political Arithmetick was completed at a date later than the Political Anatomy is also confirmed by the larger estimate of the population of Ireland which the Arithmetick³ makes.

Of the numerous MSS. of the Political Arithmetick, by far the most important is that bound in the same volume with the MS. Treatise of Ireland, and called by Lord Edmond Fitzmaurice the Neligan MS⁴. The history of this MS. is similar to that of the Southwell MS. of the Political Anatomy already traced⁵. It was given to Sir Robert Southwell by Petty and remained in Southwell's family until purchased by Thorpe⁶ at the De Clifford sale in 1834. It passed into Dr Neligan's possession, and after his death it was bought for the British Museum⁷, becoming Additional MS. 21,128. In view of its history, I call it the Southwell MS., and refer to it in the footnotes as S. This MS. is not so neatly written as the Southwell Political Anatomy; the ink is similar but the paper is of a different size, and it has one similar and one different watermark⁸. The corrections are far more numerous, and are unmistakably in Petty's hand⁹. It may be the very same MS. which Petty corrected for Southwell in March, 1681 and wished to have compared with "what goeth abroad"¹⁰. If it be the same, Petty's wish is at length fulfilled: the readings of the Southwell MS. are now compared with the text that went forth in 1690 wherever the differences between them are significant. But mere variations in spelling and minor grammatical differences (like "hath" for "has")

¹ P. 304.

² *Archæologia*, xii. 281—282.

³ P. 272, note, cf. *Anatomy*, p. 142, note.

⁴ *Life of Petty*, p. 273, also preface, 6—7. Lord E. Fitzmaurice slips in saying that the volume contains the *Political Anatomy*. The Neligan, or Southwell, MS. of the *Political Anatomy* is a separate volume, B. M. Addl. MS., 21,127.

⁵ P. 123.

⁶ Thorpe's *Cat. lib. MSS. bibl. Southwelliana*, no. 712, p. 410.

⁷ *Cat. of books sold by Sotheby*, 17 Aug., 1855, no. 306.

⁸ The characteristic water mark of the *Pol. Arith.* occurs also in an Order in Council dated 21 May, 1680. *State Papers, Dom.*, Charles II. 413.

⁹ See Facsimile.

¹⁰ Fitzmaurice, 262.

are disregarded, and the punctuation of the MS. is noted only where it gives the passage a meaning different from that of the printed version. All Petty's corrections are noted.

Among the remaining MSS. perhaps the most interesting is one endorsed "Pettys Pl. Arithmetic I take to be Corrected by S^r W^m himself having formerly seen a good deal of his Hand Writing," now among the Rawlinson MSS. in the Bodleian Library¹. The MS. is in two hands, that of the second copyist beginning with chapter five. Petty's corrections are few compared with those in the Southwell MS., and most of them are merely formal, such as changing "300,000" to "300 Thousand." The more important variations marked R, are given in the foot notes. A transcript of the Political Arithmetick, presented by Willoughby, is in the Library of Trinity College, Dublin². It contains no corrections by Petty. A transcript in quarto, made for Essex, is, or was, at Ashburnham Place³, and the British Museum has, in addition to the Southwell MS., a comparatively worthless copy, unintelligently abridged⁴. Besides these, a MS. of the Political Arithmetick was presented by Petty to the King⁵ and both Sir Joseph Williamson⁶ and Sir Peter Pett⁷ had MSS. of it.

Manuscript copies of the Political Arithmetick being thus circulated among Petty's friends, soon after its composition, they seem to have urged him to publish it at once. A letter to Southwell⁸ in reply to some such request was once in the possession of Thomas Thorpe, who described it as discussing the printing [reprinting] of the Treatise of Taxes, the Political Arithmetick, and the translation of the 104th psalm, "which Petty here expresses his reluctance to be printed⁹." The unauthorized reprinting of the Treatise of Taxes in 1679¹⁰ apparently convinced Petty that it was safer to have his books printed under supervision, for he subsequently wrote to Aubrey, 12 July, 1681, that he was not forward to print the Political Arithmetick but did wish that what went abroad might be compared with the copy in Southwell's possession, which he had corrected in

¹ Rawlinson MS. D 25.

² MSS. E. 2 : 20. *Fourth Rept Hist. MSS. Com.*, 596 b.

³ *Eighth Rept. Hist. MSS. Com.*, III. 39 a.

⁴ Sloane MS. 2572.

⁵ Wood, *Athenæ Oxon.*, II. 810.

⁶ *Ib.*

⁷ Pett, *Happy future State*, 106, 193.

⁸ Dated 5 Oct., 1678.

⁹ Thorpe, *Cat. lib. MSS. bibl. Southwellianæ*, p. 403.

¹⁰ P. 4.

March¹. In this letter there is no hint of the reason for non-publication which Lord Shelburne advances², and Petty's care to secure a good text indicates that he expected the book to be published soon. Nearly a year after the letter to Aubrey, Petty came to London, where he remained until the summer of 1683, being occupied about the reform of the Irish revenues³. It was probably about this time that he wrote the dedication of the *Political Arithmetick* to the King⁴, and presented his Majesty with a copy of the book in MS. He appears, however, presently to have abandoned the project of publication, and there can be little doubt that the ill-printed edition of the *Political Arithmetick* which was soon anonymously issued under the title of *England's Guide to Industry*⁵, appeared without his consent.

After Petty's death the demand for an authentic edition of the *Political Arithmetick* was renewed, and Lady Petty, who was executrix of her husband's will, asked Southwell's advice in the matter. Sir William himself, so she wrote⁶, would not suffer the book to be printed, wherefore she was very loath to do it upon any account whatsoever, unless it were to prevent a greater evil. She was told, however, that five hundred false copies were in circulation and that the book would be published to disadvantage unless she authorized the printing of it. Southwell's reply is not preserved, but inasmuch as the *Political Arithmetick* was issued in 1690 with a dedication written by Lady Petty's son, it may be inferred that her scruples were at length overcome.

¹ Fitzmaurice, 262.

² "Had not the Doctrins of this Essay offended France, they had long since seen the light.—Dedication of 1690 edition, p. 240.

³ Ibid, 250—253; Birch, IV. 168, 173, 196.

⁴ Note on p. 239.

⁵ Bibliography, 11. Several readings from *England's Guide* (G) are given in the footnotes to the *Political Arithmetick* in order to show how corrupt the text of the *Guide* was.

⁶ Lady Petty to Sir R. Southwell, 18 Feb., 1688, quoted in Thorpe's *Cat. lib. MSS. bibl. Southwellianæ*, p. 409.

T O T H E
K I N G ' S
Most Excellent
M A J E S T Y .

S I R,

W *Hilest every one meditates some fit Offering for Your Majesty, such as may best agree with your happy || Exaltation to this Throne; I presume to offer, what my Father long since writ, to shew the weight and importance of the English Crown.*

It was by him stiled Political Arithmetick², in as much as things of Government, and of no less concern and extent, than the Glory of the Prince, and the happiness and greatness of the People, are by the Ordinary Rules of Arithmetick, brought

¹ R and S have the following original dedication to Charles II. (from S):

To the Kings most Excellent Majestie

May it please your maj^{ty}.

As few dare venture their Discretions wholly to Disparage Arithmetick, So few doe think much practice of it very necessary in matters of State, otherwise then in what concerns the Revenue. I have therefore for the Sake of severall Young Noblemen who are now fitting themselves for your Maj^{ty} Service adventured to shew the vse of comon and easie computations in the ten Political conclusions mentioned in this Treatise, And doe now humbly beg your Maj^{ty} Pardon, for having presumed to practice a Vulgar Art upon Matters of so high a nature, and so much beyond my owne calling and Capacity. But since whatever is firm and high must have low and euen foundations, I hope I have done no incongruous thing, nor what your Maj^{ty} will blame, being the Candid Endeavours of

² Petty appears to have been the inventor of this famous phrase. It occurs in the following passage, quoted because it throws light on Petty's conception of his new science, "My Lord Ogle being now about to carve a significant figure upon

into a sort of Demonstration. He was allowed¹ by all, to be the Inventor of this Method of Instruction; where || the perplexed and intricate ways of the World, are explain'd by a very mean peice of Science; and had not the Doctrins of this Essay offended France, they had long since seen the light, and had found Followers, as well as improvements before this time, to the advantage perhaps of Mankind.

But this has been reserved to the felicity of Your Majesty's Reign, and to the expectation which the Learned have therein; and if while in this, I do some honor to the Memory of a good Father, I || can also pay Service, and some Testimony of my Zeal and Reverence to so great a King, it will be the utmost Ambition of

S I R,

Your Majesty's Most Dutiful

and Most Obedient Subject,

Shelborne². ||

my Lord his Son, by his careful Education of him, I thought it a service to his Lordship, as well as an Expression of my Thanks for his former Endeavours, to call upon him, not only to instruct my Lord his Son in some Mathematicks, but also to store and stock him with variety of Matter, Data and Phænomena, whereupon to exercise the same; since Lines & Numbers without those, are but like Lute-strings without a Lute or Hand. For, my Lord, there is a Political Arithmetick and a Geometrical Justice to be yet further cultivated in the World; the Errors and Defects whereof, neither Wit, Rhetoric, nor Interest can more than palliate, never cure. For, Falsity, Disproportion, and Inconsistence cannot be rectified by any sermocinations, though made all of figurate and measured periods, pronounced in Time and Cadence, through the most advantageous organs; much less by Grandisonous or Euphonical Nonsense, farded with formality; no more than vicious Wines can be remedied with Brandy and Honey, or ill Cookery with enormous proportions of Spice and Sugar: '*Nam Res nolunt male administrari.*'" Epistle to the Duke of Newcastle prefixed to Petty's *Discourse of Duplicate Proportion* (1674). This has been considered the earliest use of the term "*Political Arithmetick.*" S. Bauer, *History of Political Arithmetic*, in Palgrave's *Dict. of Polit. Economy*, I. 56. Petty, however, had devised the phrase at an earlier date. He employed it in a letter to Lord Anglesea, 17 December, 1672 (*Life*, 158), and in his preface (p. 244) he describes the book as "a Specimen of the Political Arithmetick I have long aimed at."

¹ Cf. Davenant, *Works*, I. 128.

² Charles, Sir William Petty's eldest surviving son, born 1673, was created Baron of Shelburne in the peerage of Ireland in 1688 and died in 1696.

P R E F A C E.

FORasmuch as Men, who are in a decaying condition, or who have but an ill opinion of their own Concernments, instead of being (as some think) the more industrious to resist the Evils they apprehend, do contrariwise become the more languid and ineffectual in all their Endeavours, neither caring to attempt or prosecute even the probable means of their relief. Upon this Consideration, as a Member of the Common-Wealth, next to knowing the precise Truth in what condition the common Interest stands, I would in all doubtful Cases think || the best, and consequently not despair, without strong and manifest Reasons, carefully examining whatever tends to lessen my hopes of the publick Welfare.

I have therefore thought fit to examin the following Perswasions, which I find too currant in the World², and too much to have affected the Minds of some, to the prejudice of all, *viz.*

That the Rents of Lands are generally fall'n; that therefore, and for many other Reasons, the whole Kingdom

The fears of many concerning the Welfare of England.

¹ S. R, 'The Preface.'

² On the idea that England's industries were declining during the reign of Charles II. see Roscher, *Engl. Volkswirtschaftslehre*, 74. The formidable list of 'trades lost' in the preface of Child's *New Discourse of Trade*, though not printed until 1693 was written before 1669 and doubtless reflected current opinion.

grows every day poorer and poorer¹; that formerly it abounded with Gold, but now² there is a great scarcity both of Gold and Silver; that there is no Trade nor Employment for the People, and yet that the Land is under-peopled; that Taxes have been many and || great; that *Ireland* and the Plantations in *America* and other Additions to the Crown, are a Burthen to *England*; that *Scotland* is of no Advantage; that Trade in general doth lamentably decay; that the *Hollanders* are at our heels, in the race of Naval Power; the *French*³ grow too fast upon both, and appear so rich and potent, that it is but their Clemency that they do not devour their Neighbors; and finally, that the Church and State of *England*, are in the same danger with the Trade of *England*; with many other dismal Suggestions, which I had rather stifle than repeat⁴.

¹ On rent as a criterion of prosperity see Cunningham, *English Industry*, 11. 191; Patten, *Interpretation of Ricardo in Qu. Jour. of Economics*, VII. 324.

² S, 'but that now.'

³ S, 'Power, That the French.'

⁴ Petty's whole paragraph is almost a summary, as its closing sentence indicates, of *A Treatise Wherein is demonstrated, That the church and state Of England, are in equal danger With the trade Of it. Treatise I.* By Roger Coke. London, 1671. 4°. The book comprises two treatises, with continuous pagination and signatures, but with a second title, at p. 91, *Reasons of the increase of the Dutch Trade. Wherein is demonstrated from what Causes the Dutch Govern and Manage Trade better than the English; whereby they have so far improved their Trade above the English. Treatise II.* Coke declares that the peopling of the American plantations has diminished the valuable trades of England. Before the accession of the plantations England lost £480,000 yearly in woollen manufactures for want of men to do them, and above £1,372,000 in the fishing trade, and "now we have opened a wide gapp, and by all encouragement excited all the growing youth and industry of England, which might preserve the trades we had herein, to betake them to those of the Plantations"—p. 16. Ireland also is a disadvantage to England for similar reasons—pp. 19—20. The Dutch sell more commodities in trade cheaper and with much more gain than the English, so as now they are swelled to be of such a prodigious greatness by sea that it is a question whether they can be controlled by any power in the world—pp. 128—129. Coke has, curiously, little to say of the rivalry of France under Colbert. Sir Roger L'Estrange's *Discourse of the Fishery* (1674) says that the cod, herring and ling taken in his Majesty's seas by the Dutch and other nations are valued *communibus annis* at no less than ten millions of pounds sterling, "which computation has been often published and constantly received for current without contradiction." (*In A small Collection of valuable Tracts relating to the Herring Fishery* (1751), p. 45.) Cf. p. 257, note.

'Tis true, the Expence of foreign Commodities hath of late been too great; much of our Plate, had it remain'd Money, would have bet-||ter served Trade; too many Matters have been regulated by Laws, which Nature, long Custom, and general Consent, ought only to have governed; the Slaughter and Destruction of Men by the late Civil Wars and Plague have been great; the Fire at *London*, and Disaster at *Chatham*¹, have begotten Opinions in the *Vulgus* of the World to our Prejudice; the Nonconformists increase²; the People of *Ireland* think long of their Settlement; the *English* there apprehend themselves to be Aliens, and are forced to seek a Trade with Foreigners, which they might as well maintain with their own Relations in *England*. But notwithstanding all this (the like whereof was always in all Places), the Buildings of *London* grow great and glorious; the *American* Planta-||tions employ four Hundred Sail of Ships; A||tions in the *East-India* Company are near double the principal Money; those who can give good Security, may have Money under the Statute-Interest; Materials for building (even Oaken-Timber) are little the dearer, some cheaper for³ the rebuilding of *London*⁴; the Exchange seems as full of Merchants as formerly; no more Beggars in the Streets, nor executed for Thieves, than heretofore; the Number of Coaches, and Splendor of Equipage exceeding former Times; the publique Theatres very magnificent; the King has a greater Navy, and stronger Guards than before our Calamities; the Clergy rich, and the Cathedrals in

*The real
Prejudices
of Eng-
land.*

*The Im-
provements
of Eng-
land.*

¹ Refers to the presence of the Dutch fleet in the Thames, the attack on Chatham, and the burning of the English ships there 10 June, 1667. Mahan, *Influence of the Sea Power*, 132.

² Among the 'nonconformists' Petty may have included Roman Catholics. In the *Further Observations* he numbers them among the 'dissenters.'

³ Edward Arber, in his ed. of the *Polit. Arith.* inserts an 'all' in brackets.

⁴ Coke admitted that the superior durability of English timber had theretofore offset the advantage which the Dutch enjoyed in being able to build ships for half what the English could. But he held that all the best English timber was at length wasted and destroyed and still more must be in rebuilding the City of London. He could not therefore, understand how, for the future, the English could possibly build as good ships as either Dutch, Dane or French for three times the price. *Treatise II*, p. 115.

repair; much Land has been improved, and the Price of Food so reasonable, as that Men refuse || to have it cheaper, by admitting of *Irish Cattle*¹; And in brief, no Man needs to want that will take moderate pains. That some are poorer than others, ever was and ever will be: And that many are naturally querulous and envious, is an Evil as old as the World.

These general Observations, and that Men eat, and drink, and laugh as they use to do, have encouraged me to try if I could also comfort others, being satisfied my self, that the Interest and Affairs of *England* are in no deplorable Condition.

The Author's Method and Manner of Arguing.

The Method I take to do this, is not yet very usual; for instead of using only comparative and superlative Words, and intellectual Arguments, I have taken the course (as a Specimen of the Political A-||rithmetick I have long aimed at) to express my self in Terms of *Number*, *Weight*, or *Measure*; to use only Arguments of Sense, and to consider only such Causes, as have visible Foundations in Nature; leaving those that depend upon the mutable Minds, Opinions, Appetites, and Passions of particular Men, to the Consideration of others: Really professing my self as unable to speak satisfactorily upon those Grounds (if they may be call'd Grounds), as to foretel the cast of a Dye; to play well at Tennis, Billiards, or Bowles, (without long practice,) by virtue of the most elaborate Conceptions that ever have been written *De Projectilibus & Missilibus*, or of the Angles of Incidence and Reflection. ||

The Nature of his Positions and Suppositions.

Now the Observations or Positions expressed by *Number*, *Weight*, and *Measure*, upon which I bottom the ensuing Discourses, are either true, or not apparently false, and which if they are not already true, certain, and evident, yet may be made so by the Sovereign Power, *Nam id certum est quod*

¹ S, R omit 'so' and 'as that Men refuse to have it cheaper, by admitting of *Irish Cattle*.' Cf. p. 160, 161, note.

*certum reddi potest*¹, and if they are false, not so false as to destroy the Argument they are brought for ; but at worst are sufficient as Suppositions to shew the way to that² Knowledge I aim at. And I have withal for the present confined my self to the Ten principal Conclusions hereafter particularly handled, which if they shall be judged material, and worthy of a better Discussion, I hope all ingenious and candid Persons will rectifie the Errors, Defects, and || Imperfections, which probably may be found in any of the Positions, upon which these Ratiocinations were grounded. Nor would it misbecome Authority it self, to clear the Truth of those Matters which private Endeavours cannot reach to. ||

¹ "Albeit there appears no certainty of years in the lease, yet if by reference to a certainty it may be made certain it sufficeth, *Quia id certum est quod certum reddi potest.*" Coke upon Littleton, 45 b.

² S, 'the,' altered to 'that' by Petty, R, 'y^t.'

THE
Principal Conclusions¹
OF THIS
TREATISE
A R E,

- CHAP. I. *That a small Country, and few People, may by their Situation, Trade, and Policy, be equivalent in Wealth and Strength, to a far greater People, and Territory. And particularly, How conveniences for Shipping, and Water Carriage, do most Eminently, and Fundamentally, conduce thereunto.* Pag. 1 [249]
- Chap. II. *That some kind of Taxes, and Publick Levies, may rather increase than diminish the Common-Wealth.* pag. 35 [268] ||
- Chap. III. *That France cannot, by reason of Natural and Perpetual Impediments, be more powerful at Sea, than the English, or Hollanders.* 51 [278]
- Chap. IV. *That the People, and Territories of the King of England, are Naturally near² as considerable, for Wealth, and Strength, as those of France.* pag. 64 [284]
- Chap. V. *That the Impediments of Englands Greatness, are but contingent and removeable.* pag. 87 [298]
- Chap. VI. *That the Power and Wealth of England, hath increased above this forty years.* pag. 96 [302]
- Chap. VII. *That one tenth part, of the whole Expence, of the King of England's Subjects; is sufficient to maintain one hundred thousand Foot, thirty thousand Horse, and forty thousand Men at Sea, and to defray all other Charges, of the Government: both Ordinary and Extraordinary, if the same were regularly Taxed, and Raised.* pag. 101 [305]

¹ S has not the list of 'principal conclusions,' R has it.

² R omits 'near.'

- Chap. VIII. *That there are spare Hands enough among the King of England's Subjects, to earn two Millions per annum, more than they now do, and there are Employments, ready, || proper, and sufficient, for that purpose.* pag. 104 [307]
- Chap. IX. *That there is Money sufficient to drive the Trade of the Nation.* pag. 110 [310]
- Chap. X. *That the King of England's Subjects, have Stock, competent, and convenient to drive the Trade of the whole Commercial World.* pag. 112 [311]||
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E R R A T A.

PAGE 7. line 25. read *the Rent*. p. 8. l. 21. r. *a part*. p. 20. l. 3. r. *for cheap*. p. 21. l. 14. r. *cold, moist*. p. 26. l. 7. r. *that Church*. p. 32. l. 7. r. *yearly profit*. l. 18. r. *to be the value*. p. 47. l. 4. r. *fifty thousand*. l. 28. r. *sixteen thousand*. p. 49. l. 13. r. *the said half together*. p. 52. l. 6. r. *should bring*. p. 59. l. 24. r. *they coast*. p. 72. l. 8. r. *or above*. p. 91. l. 9. r. *Exotics*. p. 95. l. 13. r. *paying for*.

C H A P. I.

[1]

That a small Country and few People, by its Situation, Trade, and Policy, may be equivalent in Wealth and Strength, to a far greater People and Territory: And particularly that conveniencies for Shipping and Water-Carriage, do most Eminently and Fundamentally conduce thereunto.

THIS first principal Conclusion by reason of its length, I consider in three Parts; whereof the first is, That a small Country and few People, may be equivalent in Wealth and Strength to a far greater People and Territory.

¹ How one Man by art and one Acre of Land by improvement may be equivalent to many.

This part of the first principal Conclusion needs little proof; forasmuch as one Acre of Land, may bear as much Corn, and feed as many Cattle as twenty, by the difference of the Soil; some parcel of Ground is naturally so defensible, as that an Hundred Men being possessed thereof, can resist the Invasion of Five Hundred; and bad Land may be improved and made good; Bog may by draining be made Meadow; Heath-land may (as in *Flanders*) be made to bear Flax and Clover-grass, so as to advance in value from one to an Hundred²; The same Land being built upon, may centuple the Rent which it yielded as Pasture; one Man is more nimble, or strong, and more patient of labor than another; one Man by Art may do as much work, as many without it; *viz.* one Man with a Mill can grind as much Corn, as twenty can pound in a Mortar; one Printer can make as many Copies, as an Hundred Men can write by hand; one Horse can carry upon Wheels, as much as Five

¹ S and R have no side notes.

² This was a favourite idea of Petty's friend, Hartlib. Cf. note 3, p. 250.

upon their Backs; and in a Boat, or upon Ice, as Twenty¹: So that I say again, this first point of this general Position, needs little or no proof. But the second and more material part of this Conclusion is, that this difference in Land and People, arises principally from their Situation, Trade, and Policy. ||

A comparison of Holland and Zealand with France.

- [3] To clear this, I shall compare *Holland* and *Zealand*, with the Kingdom of *France*, viz. *Holland* and *Zealand* do not contain above one Million of *English* Acres, whereas the Kingdom of *France* contains above 80.

Now the Original and Primitive difference holds proportion as Land to Land, for it is hard to say, that when these places were first planted, whether an Acre in *France* was better than the like quantity in *Holland* and *Zealand*; nor is there any reason to suppose, but that therefore upon the first Plantation, the number of Planters was in Proportion to the quantity of Land; wherefore, if the People² are not in the same proportion as the Land, the same must be attributed to the Scituation of the Land, and to the Trade and Policy of the People superstructed thereupon.

The next thing to be shewn is, that *Holland* and *Zealand* at this day, is not only an eightieth part as rich and strong as *France*, but that it hath advanced to one third or thereabouts, which I think will appear upon the Ballance of the following particulars, viz. ||

That the Lands of France, are to the Lands of Holland and Zealand, as 8 to 1 in value.

- [4] As to the Wealth of *France*, a certain Map of that Kingdom, set forth *Anno* 1647. represents it to be fifteen Millions, whereof six did belong to the Church, the Author thereof (as I suppose) meaning the Rents of the Lands only: And the Author of a most Judicious discourse of Husbandry (supposed to be Sir *Richard Weston*³), doth from reason and experience shew, that Lands in the Netherlands, by bearing

¹ A list of 'Experiments to be made relating to Land-Carriage proposed by the learned Sir William Petty, Kt.,' is in *Philosophical Transactions*, no. 161, 20 July, 1684, vol. xiv. pp. 666—667. These experiments, if performed, would yield data concerning traction similar to those which Petty here assumes.

² S, 'now are,' the 'now' inserted by Petty.

³ The relations of Weston's *Discourse of Husbandrie used in Brabant and Flanders*, 1652, to Hartlib's *Discourse*, to Hartlib's *Legacy*, and to the *Directions*

Flax, Turneps, Clover-grass, Madder, &c. will easily yield 10 *l. per Acre*; so as the Territories of *Holland* and *Zealand*, should by his account yield at least Ten Millions *per annum*, yet I do not believe the same to be so much, nor *France* so little as abovesaid, but rather, that one bears to the other as about 7, or 8 to 1.

The People of *Amsterdam*, are one third of those in *Paris* or *London*, which two Cities differ not in People a twentieth part from each other, as hath appeared by the Bills of Burials and Christnings for each¹. But the value of the Buildings in *Amsterdam*, may well be half that of *Paris*, by reason of the Foundations, Grafts, and Bridges, which || in *Amsterdam* are more numerous and chargeable than at *Paris*. Moreover the Habitations of the poorest People in *Holland* and *Zealand* are twice or thrice as good as those of *France*; but the People of the one to the People of the other, being but as thirteen to one, the value of the housing must be as about five to one.

The Buildings of *Amsterdam* are about half in value to those at *Paris*.

The Housing in *France* above five times the value of those in *Holland* and *Zealand*.

The value of the Shipping of *Europe*, being about two Millions of Tuns, I suppose the *English* have Five Hundred Thousand, the *Dutch* Nine Hundred Thousand, the *French* an Hundred Thousand, the *Hamburgers*, and the Subjects of *Denmark*, *Sweden*, and the Town of *Dansick* two Hundred and Fifty Thousand, and *Spain*, *Portugal*, *Italy*, &c. two Hundred and Fifty Thousand; so as the Shipping in our case of *France* to that of *Holland* and *Zealand*, is about one to nine, which reckoned as great and small, new and old, one with another at 8³ *l. per Tun*, makes the worth to be as Eight Hundred Thousand Pounds, to Seven Millions, and Two Hundred Thousand Pounds. The *Hollanders* Capital in the

The Shipping of *Holland* 9 times that of *France*.

The Comparison of *Holl.* and *France* in the *India's*.

left by a Gentleman to his Sons for the Improvement of barren and heathy Land, 1670, are much involved. They appear to be all substantially the same book. Cf. *A biographical Memoir of Hartlib with bibliographical Notices of Works published by him*. By H. Dircks (1865), p. 62—87.

¹ The *Paris* bills began in 1670 (see note on the subject near the end of *Graunt's Observations, post*) and from that time to 1676 the births in the two cities always differed more than a twentieth, and the burials differed by more than a twentieth each year save in 1672.

² S, '9,' altered to '8' by Petty; R, '8.'

[6] *East-India* Company, is worth above Three || Millions; where the *French* as yet have little or nothing.

The ex-
portations
of *France*
and *Hol-
land* is as
5 to 21.

The value of the Goods exported out of *France* into all Parts, are supposed Quadruple to what is sent to *England* alone; and consequently in all about Five Millions¹, but what is exported out of *Holland* into *England* is worth Three Millions; and what is exported thence into all the World besides, is sextuple to the same.

The Re-
venues of
France.

The Monies Yearly raised by the King of *France*, as the same appears by the Book intituled (The State of *France*) Dedicated to the King, Printed Anno 1669. and set forth several times by Authority², is 82000000 of *French* Livres,

¹ This estimate, again alluded to on p. 297, is much less than Fortrey's figures of English imports out of France, quoted on p. 309. The well known "Scheme of the trade at present carried on between England and France," dated 1674, made the total English imports from France £1,136,150, as against total exports to France of only £171,021. Reprinted Somers' *Tracts*, VIII. 30—31, and *Parl. Hist.*, IV. appendix, p. cxvii. When printed in King's *British Merchant*, 29 November, 1674, this estimate was said to have been calculated as exactly as possible, in obedience to the commands of the commissioners for the treaty with France, by sundry London tradesmen. *Merchant*, 1721 ed., vol. I. p. 181. But in vol. II. p. 407 the same figures are said to be taken from a report of Sir George Downing, commissioner of customs, to the Privy Council, dated 9 March, 1675. Whatever their true source, the figures were known at the time when Petty wrote and may have some connection with his estimate of imports at "not above one million two hundred thousand pounds per annum" (p. 297). The *Mercator* alleged that the calculation as printed by the *British Merchant* was disingenuous, the exports being those of 1668, the year after Colbert's great increase of the French duties, while the imports were those of 1674. Taking its figures, apparently, from Davenant's *Report to the Commissioners for Stating the public Accounts* (*Works*, v. 353), the *Mercator* of 26—28 May, 1713 gives its own estimate for 1668—69, imports £541,584, exports £108,699.

² *The present State of France containing the Orders, Dignities and Charges of that Kingdom. Written in French [by Nicolas Besongne] and faithfully Englished.* London. 1671. 12°. I can find no English edition of 1669, but *L'état de la France, ou l'on voit tous les Princes, Ducs & Pairs* was printed at Paris by Jean Rinom in 1669. The English *State* says that the taxes and subsidies amount in the whole to 50,359,208 livres. "It is not to be doubted that during the late disorders there were many insolvents, for w^{ch} reason this Estimât was not of the last year, but of the years before: in the year 1648 his Majesty by his Declaration remitted the fifth part of the said taxes, but since the said declaration has been revoked, and the taxes advanced above a third." P. 457—458. *De l'État présent de la France* [par Paul Hay du Chastelet]. À Cologne [? Amsterdam, see Weller, *Falsche und fingirte Druckorte*, II. 25], 1672, was not set forth by authority.

which is about $6\frac{1}{2}$ Millions of Pounds Sterling, of which summ the Author says, that one fifth part was abated for non-valuers or Insolvencies, so (as I suppose) not above Five Millions were effectually raised : But whereas some say, that the King of *France* raised Eleven Millions as the $\frac{1}{6}$ of the effects of *France* ; I humbly affirm, that all the Land and Sea Forces, all the Buildings and Entertainments, which we have heard by common Fame, to have been || set forth and [7] made in any of these seven last Years, needed not to have cost six Millions Sterling ; wherefore, I suppose he hath not raised more, especially since there were one fifth Insolvencies, when the Tax was at that pitch. But *Holland* and *Zealand*, The Taxes paid by Holl. and Zealand. paying 67 of the 100, paid by all the United Provinces, and the City of *Amsterdam* paying 27 of the said 67 ; It follows that if *Amsterdam* hath paid 4000 *l.* Flemish *per diem*, or about¹ 1400000 *l.* *per annum*, or 800000 *l.* Sterling ; that all *Holland* and *Zealand*, have paid 2100000 *l.* *per annum* : Now the reasons why I think they pay so much, are these, *viz.*

1. The Author of the State of the *Netherlands* saith so².

2. Excise of Victual at *Amsterdam*, seems above half the Original value of the same, *viz.*

Ground Corn pays 20 Stivers the Bushel, or 63 Gilders the Last ; Beer 113 Stivers the Barrel, Housing $\frac{1}{6}$ of Rent³, Fruit $\frac{1}{8}$ of what it cost ; other Commodities $\frac{1}{7}$, $\frac{1}{8}$, $\frac{1}{9}$, $\frac{1}{12}$; Salt *ad libitum*, all weighed Goods pay besides the Premises a vast summ ; now if the expence of the People of *Amsterdam* at a medi-||um, and without Excise were 8 *l.* *per annum*, [8] whereas in *England* 'tis 7 *l.* then if all the several Imposts above named, raise it Five Pound more, there being 160000 Souls in *Amsterdam*, the summ of 800000 *l.* Sterling *per annum* will thereby be raised.

¹ S, 'about' inserted by Petty, R 'about 1460,000 p Ann or above 800 thousand.'

² "It is commonly reported that in the general contribution of the Provinces toward the War, Holland gives 57 in a 100, and Amsterdam alone gives above 27 of the 57 ; from whence may be inferred what are the riches of that Town. The revenue of the said City comes to above 4000 pound a day." *The present state of the United Provinces of the Low-countries....Collected by W[ilhelm] A[lbigony]*. The second edition. London, 1671, p. 360.

³ 1691, 'the rent,' cf. errata on p. 248.

3. Though the expence of each head, should be 13 *l. per annum*; 'tis well known that there be few in *Amsterdam*, who do not earn much more than the said expence.

4. If *Holland* and *Zealand* pay *p. an.* 2100000 *l.* then all the Provinces together, must pay about 3000000 *l.* less than which summ *per annum*, perhaps is not sufficient to have maintained the Naval War with *England*, 72000 Land Forces, besides all other the ordinary Charges of their Government, whereof the Church is there apart¹: To conclude, it seems from the Premisses, that all *France* doth not raise above thrice as much from the publick charge, as *Holland* and *Zealand* alone do.

The Difference of interest between *Hol.* & *France*.

5. Interest of Money in *France*, is 7 *l. per cent.* but in *Holland* scarce half so much. ||

[9] 6. The Countries of *Holland* and *Zealand*; consisting as it were of Islands guarded with the Sea, Shipping, and Marshes, is defensible at one fourth of the charge, that a plain open Country is, and where the feat of War may be both Winter and Summer; whereas in the others, little² can be done but in the Summer only.

The superlucration between *France* and *Holl.*

7. But above all the particulars hitherto considered, that of superlucration ought chiefly to be taken in; for if a Prince have never so many Subjects, and his Country be never so good, yet if either through sloth, or extravagant expences, or Oppression and Injustice, whatever is gained shall be spent as fast as gotten, that State must be accounted poor; wherefore let it be considered, how much or how many times rather, *Holland* and *Zealand* are now above what they were 100 years ago, which we must also do of *France*: Now if *France* hath scarce doubled its Wealth and Power, and that the other have decupled theirs; I shall give the preference to the latter, even although the $\frac{9}{10}$ increased by the one, should [10] not exceed the one half gained by the other, || because one has a store for Nine Years, the other but for one.

To conclude, upon the whole it seems, that though *France* be in People to *Holland* and *Zealand* as 13 to 1, and

¹ 1691, 'a part,' cf. errata.

² S, 'nothing,' altered to 'little' by Petty.

in quantity of good Land, as 80 to one, yet it is not 13 times richer and stronger, much less 80 times, nor much above thrice, which was to be proved.

Having thus dispatched the two first Branches of the first Principal conclusion; it follows, to shew that this difference of Improvement in Wealth and Strength, arises from the Situation, Trade, and Policy of the places respectively; and in particular from Conveniencies for Shipping and Water Carriage.

The causes of the difference between France and Holland

Many Writing on this Subject do so magnifie the *Hollanders*¹ as if they were more, and all other Nations less than Men (as to the matters of Trade and Policy) making them Angels, and others Fools, Brutes, and Sots, as to those particulars; whereas I take the Foundation of their achievements to lie originally in the Situation of the Country, whereby they do things inimitable by others, and have advantages whereof others are incapable. ||

First, The Soil of *Holland* and *Zealand* is low Land, [11] Rich and Fertile; whereby it is able to feed many Men, and so as that Men may live near each other, for their mutual assistance in Trade. I say, that a Thousand Acres, that can feed 1000 Souls, is better than 10000 Acres of no more effect, for the following reasons, viz.

The reasons why rich Land is better than course Land tho of the same Rent, and consequently why *Holl.* is better than *Fran.*

1. Suppose some great Fabrick were in Building by a Thousand Men, shall not much more time be spared if they lived all upon a Thousand Acres, then if they were forced to live upon ten times as large a Scope of Land.

2. The charge of the cure of their Souls, and the Ministry would be far greater in one case than in the other; as also of mutual defence in case of Invasion, and even of Thieves and Robbers: Moreover the charge of the administration of Justice would be much easier, where Witnesses and Parties may be easily Summoned, Attendance less expensive, when Mens Actions would be better known, when wrongs and injuries could not be covered, as in thin peopled places they are. ||

Lastly, those who live in Solitary places, must be their [12]

¹ See *Die Nachahmung der niederländischen Handelsblüthe* in Roscher, *op. cit.* p. 57.

own Soldiers, Divines, Physicians, and Lawyers; and must have their Houses stored with necessary Provisions (like a Ship going upon a long Voyage,) to the great wast, and needless expence of such Provisions. The value of this first convenience to the *Dutch*, I reckon or estimate¹ to be about 100000 *l. per annum*.

The advantages from the level and windmills of *Holl.*

2ly. *Holland* is a Level Country, so as in any part thereof, a Windmill may be set up, and by its being moist and vaporous, there is always wind stirring over it, by which advantage the labor of many thousand Hands is saved, forasmuch as a Mill made by one Man in half a year, will do as much Labor, as four Men for Five Years together. This advantage is greater or less, where employment or ease of Labour is so; but in *Holland* 'tis eminently great, and the worth of this conveniency is near an Hundred and Fifty Thousand Pounds.

The advantages from *Holl.* of Manufacture & Commerce. The Situation of *Holl* & *Zeal.* upon the Mouths of three great Rivers.

[13]

3ly. There is much more to be gained by Manufacture than Husbandry, and by Merchandize than Manufacture; but *Holland* and *Zealand*, being seated at the mouths of three long great Rivers, and passing through Rich Countries, do keep all the Inhabitants upon the sides of those Rivers but as Husbandmen, whilst themselves are the Manufacturers of their Commodities, and do dispence them into all Parts of the World, making returns for the same, at what prices almost they please themselves; and in short, they keep the Keys of Trade of those Countries, through which the said Rivers pass; the value of this third conveniency, I suppose to be² 200000 *l.*

Nearness to navigable Waters.

4ly. In *Holland* and *Zealand*, there is scarce any place of work, or business one Mile distant from a Navigable Water, and the charge of Water carriage is generally but $\frac{1}{15}$ or $\frac{1}{20}$ part of Land carriage; Wherefore if there be as much Trade there as in *France*, then the *Hollanders* can out-sell the *French* $\frac{1}{15}$ of all the expence, of all Travelling Postage and carriage whatsoever, which even in *England* I take to be 300000 *l. p. an.* where the very Postage of Letters, costs the

¹ S, 'or estimat' inserted by Petty, not in R.

² S, R, 'is,' S altered to 'I suppose to be' by Petty.

People perhaps 50000 *l. per annum*, though Farmed at much less, and all other Labour of Horses, and Porters, at least six times as much; The value of || this conveniency I estimate [14] to be above Three Hundred Thousand pounds *per annum*.

5. The defensibleness of the Country, by reason of its Situation in the Sea upon Islands¹, and in the Marshes, Impassible ground Diked and Trenched, especially considering how that place is aimed at for its Wealth; I say the charge of defending that Country, is easier than if it were a plain Champion, at least 200000 *l. per annum*. The defensibleness of Holland.

6. *Holland* is so considerable for keeping Ships in Harbour with small expence of Men, and ground Tackle, that it saves *per annum* 200000 *l.* of what must be spent in *France*. Now if all these natural advantages do amount to above one Million *per annum* Profits, and that the Trade of all *Europe*, nay of the whole World, with which our *Europeans* do Trade, is not above 45 Millions *p. an.* and if $\frac{1}{50}$ of the value be $\frac{1}{4}$ of the Profit, it is plain that the *Hollander* may Command and Govern the whole Trade. Harbouring of Shipping at small expence

7. Those who have their Situation thus towards the Sea, and abound with Fish at home, and having also the command of Shipping, have by consequence the Fishing Trade, whereof that of Herring alone, brings more yearly Profit to the *Hollanders* than the Trade of the *West-Indies* to *Spain*, or of the *East* to themselves, as many have affirmed, being as the same say² *vis & modis* of above three Millions *per annum* Profit. Advantages from Fishing. [15]

8. It is not to be doubted, but those who have the Trade of Shipping and Fishing³, will secure themselves of

¹ S, 'made by y^e sea & Trenches' was inserted by Petty and then stricken out, not in R. Advantages by Naval Provisions.

² S, R, 'themselves, being as some say,' S altered to 'themselves as many have affirmed, being as the same say' by Petty.

³ See John Keymour's *Observations made upon the Dutch Fishing, about the year 1601, demonstrating that there is more Wealth raised out of the Herrings and other Fish in his Majesty's Seas, by the neighbouring Nations in one Year than the King of Spain hath from the Indies in four*, London, 1664, 4°. Also Sir John Burroughs, *The Sovereignty of the British Seas*, London, 1651, 12°, p. 115; Evelyn, *Navigation and Commerce* in McCulloch's *Select Collection of Tracts on Commerce*, 95, and note 4, p. 242.

the Trade of Timber for Ships, Boats, Masts, and Cask ; of Hemp for Cordage, Sails, and Nets ; of Salt, of Iron ; as also of Pitch, Tar, Rosin, Brimstone, Oil, and Tallow, as necessary Appurtenances to Shipping and Fishing.

Fitness for
Universal
Trade.

9 Those who predominate in Shipping, and Fishing, have more occasions than others to frequent all parts of the World, and to observe what is wanting or redundant every where, and what each People can do, and what they desire, and consequently to be the Factors, and Carriers for the whole World of Trade. Upon which ground they bring all Native Commodities to be Manufactured at home, and carry [16] the same back, even to that Country in || which they grew, all which we see.

For, do they not work the Sugars of the *West-Indies*? The Timber and Iron of the *Baltick*? The Hemp of *Russia*? The Lead, Tin, and Wooll of *England*? The Quick-silver and Silk of *Italy*? The Yarns, and Dying Stuffs of *Turkey*, &c. To be short, in all the ancient States, and Empires, those who had the Shipping, had the Wealth, and if 2 *per Cent.* in the price of Commodities, be perhaps 20 *per Cent.* in the gain: it is manifest that they who can in forty five Millions, undersell others by one Million, (upon account of natural¹, and intrinsick advantages only) may easily have the Trade of the World without such Angelical Wits and Judgments, as some attribute to the *Hollanders*.

Having thus done with their Situation, I come now to their Trade.

Artificial
advan-
tages of
Trade.

It is commonly seen, that each Country flourisheth in the Manufacture of its own Native Commodities, *viz. England* for woollen Manufacture, *France* for Paper, *Luic-land*² for Iron Ware, *Portugal* for Confectures, *Italy* for Silks ; upon which Principle it follows, that *Holland* and *Zealand* must [17] flourish most || in the Trade of Shipping, and so become Carriers and Factors of the whole World of Trade. Now the advantages of the Shipping Trade are as followeth, *viz.*

¹ S, R, 'mutual interest and,' S altered to 'natural and' by Petty.

² Luikland or Luykerland, i.e. Liege.

Husbandmen, Seamen, Soldiers, Artizans¹ and Merchants, are the very Pillars of any Common-Wealth²; all the other great Professions, do rise out of the infirmities, and miscarriages of these; now the Seaman is three of these four. For every Seaman of industry and ingenuity, is not only a Navigator, but a Merchant, and also a Soldier; not because he hath often occasion to fight, and handle Arms; but because he is familiarized with hardship and hazards, extending to Life and Limbs; for Training and Drilling is a small part of Soldierly, in respect of this last mentioned Qualification; the one being quickly and presently learned, the other not without many years most painful experience: wherefore to have the occasion of abounding in Seamen, is a vast conveniency.

2. The Husbandman of *England* earns but about 4 s. per Week, but the Seamen have as good as 12 s. in Wages, || Victuals (and as it were housing) with other accommodations, [18] so as a Seaman is in effect three Husbandmen; wherefore there is little Ploughing, and Sowing of Corn in *Holland* and *Zealand*, or breeding of young Cattle: but their Land is improved by building Houses, Ships, Engines, Dikes, Wharfs, Gardens of pleasure, extraordinary Flowers and Fruits; for Dairy and feeding of Cattle, for Rape, Flax, Madder, &c. The Foundations of several advantageous Manufactures.

3. Whereas the Employment of other Men is confined to their own Country, that of Seamen is free to the whole World; so as where Trade may (as they call it) be dead here or there³, now and then, it is certain that some where or other in the World, Trade is always quick enough, and Provisions are always plentiful, the benefit whereof, those who command the Shipping enjoy, and they only.

4. The great and ultimate effect of Trade is not Wealth at large, but particularly abundance of Silver, Gold, and Jewels, which are not perishable, nor so mutable as other

Husbandmen, Seamen, Soldiers, Artizans, and Merchants, are the very Pillars of a Common-Wealth, and a Seaman is three of them.

A Seaman equivalent to three Husbandmen.

Silver, Gold, and Jewels, are Universal Wealth.

¹ S, 'Artizans' inserted by Petty, not in R. Petty neglected to make a corresponding alteration in 'three of these four,' three lines further down.

² Cf. P. de la Court, *Aanwysing* (1669), Engl. transl., p. 111.

³ S omits 'or there,' R has it.

- [19] Commodities¹, || but are Wealth at all times, and all places: Whereas abundance of Wine, Corn, Fowls, Flesh, &c. are Riches but *hic & nunc*, so as the raising of such Commodities, and the following of such Trade, which does store the Country with Gold, Silver, Jewels, &c. is profitable before others. But the Labour of Seamen, and Freight of Ships, is always of the nature of an Exported Commodity, the overplus whereof, above what is Imported, brings home money, &c.

Reasons
why the
Hollanders
Sail for
less
Freight.

5. Those who have the command of the Sea Trade, may Work at easier Freight with more profit, than others at greater: for as Cloth must be cheaper made, when one Cards, another Spins, another Weaves, another Draws, another Dresses, another Presses and Packs; than when all the Operations above-mentioned, were clumsily performed by the same hand; so those who command the Trade of Shipping, can build long slight Ships for carrying Masts, Fir-Timber, Boards, Barks, &c. And short ones for Lead, Iron, Stones &c. One sort of Vessels to Trade at Ports where they need never lie a ground, others where they must jump upon the
- [20] Sand || twice every twelve hours; One sort of Vessels, and way of manning in time of Peace, and² cheap gross Goods, another for War and precious Commodities; One sort of Vessels for the turbulent Sea, another for Inland Waters and Rivers; One sort of Vessels, and Rigging, where haste is requisite for the Maidenhead of a Market, another where $\frac{1}{2}$ or $\frac{1}{4}$ part of the time makes no matter. One sort of Mastings and Rigging for long Voyages, another for Coasting. One sort of Vessels for Fishing, another for Trade. One sort for War for this or that Country, another for Burthen only. Some for Oars, some for Poles, some for Sails, and some for draught by Men or Horses, some for the Northern Navigations amongst Ice, and some for the South against Worms, &c.³ And this I take to be the chief of several Reasons, why the *Hollanders* can go at less Freight than

¹ S, 'nor so mutable as other Comodities' inserted by Petty.

² 1691, 'and for,' cf. errata.

³ On Petty's experiments in shipbuilding and his writings on the subject see Introduction, part III. and Fitzmaurice, 109—115, 256, 266, *et passim*.

their Neighbours, *viz.* because they can afford a particular sort of Vessels for each particular Trade.

I have shewn how Situation hath given them Shipping, and how Shipping hath given them in effect all other || Trade, and how Foreign Traffick must give them as much [21] Manufacture as they can manage themselves, and as for the overplus, make the rest of the World but as Workmen to their Shops. It now remains to shew the effects of their Policy, superstructed upon these natural advantages, and not as some think upon the excess of their Understandings. The Policy of Holland.

I have omitted to mention the *Hollanders* were one hundred years since, a poor and oppressed People, living in a Country naturally cold¹ and unpleasant: and were withal persecuted for their Heterodoxy in Religion

From hence it necessarily follows, that this People must Labour hard, and set all hands to Work: Rich and Poor, Young and Old, must study the Art of Number, Weight, and Measure; must fare hard, provide for Impotents, and for Orphans, out of hope to make profit by their Labours: must punish the Lazy by Labour, and not by crippling them²: I say, all these particulars, said to be the subtil excogitations of the *Hollanders*, seem to me, but what could not almost have been otherwise. ||

Liberty of Conscience, Registry of Conveyances, small [22] Customs, Banks, Lumbards, and Law Merchant, rise all from the same Spring, and tend to the same Sea; as for lowness of Interest, it is also a necessary effect of all the premisses, and not the Fruit of their contrivance.

Wherefore we shall only shew in particular the efficacy of each, and first of Liberty of Conscience; but before I enter upon these, I shall mention a Practice almost forgotten, (whether it referreth to Trade or Policy is not material,) which is, the *Hollanders* undermasting, and sailing such of their Shipping, as carry cheap and gross Goods, and whose Sale doth not depend much upon Season. Under-masting of Ships.

It is to be noted, that of two equal and like Vessels, if

¹ S, R, 1691 insert 'moist,' cf. errata.

² S, ' & not by crippling them ' inserted by Petty.

one spreads one thousand six hundred Yards of like Canvase, and the other two thousand five hundred, their speed is but as four to five, so as one brings home the same Timber in four days, as the other will in five. Now if we consider that although those Ships be but four or five days under Sail, that [23] they are perhaps || thirty upon the Voyage; so as the one is but $\frac{1}{30}$ part longer upon the whole Voyage than the other, though one fifth longer under Sail. Now if Masts, Yards, Rigging, Cables, and Anchors, do all depend upon the quantity and extent of the Sails, and consequently hands also; it follows, that the one Vessel, goes at one third less charge, losing but one thirtieth¹ of the time, and of what depends thereupon.

Liberty of
Conscience,
and
the Reasons
there-
of in *Hol-*
land.

I now come to the first Policy of the *Dutch*, viz. Liberty of Conscience; which I conceive they grant upon these Grounds. (But keeping up always a Force to maintain the Common Peace,) 1. They themselves broke with *Spain*, to avoid the imposition of the Clergy. 2. Dissenters of this kind, are for the most part, thinking, sober, and patient Men, and such as believe that Labour and Industry is their Duty towards God. (How erroneous soever their Opinions² be.) 3. These People believing the Justice of God, and seeing the most Licentious persons, to enjoy most of the World, and its best things, will never venture to be of the same [24] Religion and Profession with Voluptu-||aries, and Men of extreme Wealth and Power, who they think have their Portion in this World.

4. They cannot but know, That no Man can believe what himself pleases, and to force Men to say they believe what they do not, is vain, absurd, and without Honor to God.

5. The *Hollanders* knowing themselves not to be an Infallible Church, and that others had the same Scripture for Guides as themselves, and withal the same Interest to save their Souls, did not think fit to make this matter their business; not more than to take Bonds of the Seamen they employ, not to cast away their own Ships and Lives.

¹ 1691, 'thirteenth.'

² S, 'principles,' altered to 'Opinions,' R, 'principalls,' altered to 'principles.'

6. The *Hollanders* observe that in *France* and *Spain*, (especially the latter) the Churchmen are about one hundred for one, to what they use or need; the principal care of whom is to preserve Uniformity, and this they take to be a superfluous charge.

7. They observe where most indeavours have been used to keep Uniformity, there Heterodoxy hath most abounded.

8. They believe that if $\frac{1}{4}$ of the People were Heterodox, and that if \parallel that whole quarter should by Miracle be re-^[25] moved, that within a small time $\frac{1}{4}$ of the remainder would again become Heterodox some way or other, it being natural for Men to differ in Opinion in matters above Sense and Reason: and for those who have less Wealth, to think they have the more Wit and Understanding, especially of the things of God, which they think chiefly belong to the Poor.

9. They think the case of the Primitive Christians, as it is represented in the *Acts of the Apostles*, looks like that of the present Dissenters, (I mean externally.) Moreover it is to be observed that Trade doth not (as some think) best flourish under Popular Governments, but rather that Trade is most vigorously carried on, in every State and Government, by the Heterodox part of the same, and such as profess Opinions different from what are publickly established: (that is to say) in *India* where the *Mahometan* Religion is Authorized, there the *Banians* are the most considerable Merchants. In the *Turkish* Empire the *Jews*, and Christians. At *Venice*, *Naples*, *Legorn*, *Genoua*, and *Lisbone*, \parallel *Jews*, and Non-Papist^[26] Merchant-Strangers: but to be short, in that part of *Europe*, where the *Roman* Catholick Religion now hath, or lately hath had Establishment; there three quarters of the whole Trade, is in the hands of such as have separated from the¹ Church (that is to say) the Inhabitants of *England*, *Scotland*, and *Ireland*, as also those of the *United Provinces*, with *Denmark*, *Sueden*, and *Norway*, together with the Subjects of the *German* Protestant Princes, and the *Hans* Towns, do at this day possess three quarters of the Trade of the World; and even in *France* it self, the *Hugonots* are proportionably far the greatest Traders; Nor is it to be denied but that in

The Trade of any Country is chiefly managed by the Heterodox party.

¹ Errata, 'that.'

Ireland, where the said *Roman* Religion is not Authorized, there the Professors thereof have a great part of the Trade. From whence it follows that Trade is not fixt to any Species of Religion as such ; but rather as before hath been said to the Hetrodox part of the whole, the truth whereof appears also in all¹ the particular Towns of greatest Trade in *England*; nor do I find reason to believe, that the *Roman* Catholick Seamen in the whole World, || are sufficient to Man effectually a Fleet equal to what the King of *England* now hath ; but the Non-papist Seamen, can do above thrice

All the
Papists
Seamen of
Europe
are scarce
sufficient
to Man
the King
of *Eng-
land's*
Fleet.

[27] as much. Wherefore he whom this latter Party doth affectionately own to be their Head, cannot probably be wronged in his Sea-concernments by the other ; from whence it follows, that for the advancement of Trade, (if that be a sufficient reason) Indulgence must be granted in matters of Opinion ; though licentious actings as even in *Holland*, be restrained by force.

Firm Ti-
tles to
Lands and
Houses.

The second Policy or help to Trade used by the *Hollanders*, is securing the Titles to Lands and Houses ; for although Lands and Houses may be called *Terra Firma & res immobilis*, yet the Title unto them is no more certain, than it pleases the Lawyers and Authority to make them ; wherefore the *Hollanders* do by Registries, and other ways of Assurance make the Title as immovable as the Lands, for there can be no encouragement to Industry, where there is no assurance of what shall be gotten by it ; and where by fraud and corruption, one Man may take away with ease and by [28] a trick, and in a moment || what another has gotten by many Years² extreme labour and pains³.

Of the in-
troducing
Registries
into *Eng-
land*.

There hath been much discourse, about introducing of Registries into *England* ; the Lawyers for the most part object against it, alledging that Titles of Land in *England* are sufficiently secure already ; wherefore omitting the considerations of small and oblique reasons *pro & contra*, it were good that enquiry were made from the Officers of several

¹ Somits 'all.'

² S, 'and in a moment' and 'many years,' inserted by Petty.

³ Petty had lost much land of which he once supposed himself the owner. Fitzmaurice, 137, 138, 151.

Courts, to what summ or value Purchasers have been damnified for this last ten Years, by such fraudulent conveyances as Registries would have prevented; the tenth part whereof at a *Medium*, is the annual loss which the People sustain for want of them, and then computation is to be made of the annual charge of Registering such extraordinary Conveyances, as would secure the Title of Lands; now by comparing these two summs, the Question so much agitated may be determined; though some think that though few are actually damnified, yet that all are hindered by fear and deterred from Dealing¹.

Their third Policy is their Bank, the use whereof is to increase Mony, or rather to || make a small summ equivalent in Trade to a greater, for the effecting whereof these things are to be considered. 1. How much Money will drive the Trade of the Nation. 2. How much current Money there is actually in the Nation. 3. How much Money will serve to make all payments of under 50*l.* or any other more convenient summ throughout the Year. 4. For what summ the keepers of the Bank are unquestionable Security: If all these four particulars be well known, then it may also be known, how much of the ready Money above mentioned may safely and profitably² be lodged in the Bank, and to how much ready current Money the said deposited Money is equivalent. As for example, suppose a Hund. thous. Pounds will drive the Trade of the Nation, & suppose there be but Sixty thousand Pounds of ready Money in the same; suppose also that Twenty thous. Pounds will drive on and answer all Payments made of under 50*l.* In this case Forty of the Sixty being put into the Bank, will be equivalent to Eighty, which eighty and twenty kept out of the Bank do make up an Hundred, (that is to say) enough to drive || the Trade as was proposed; where note that the Bank keepers must be responsible for double the summ intrusted with them, and must have power to levy upon the general, what they happen to loose unto particular Men.

¹ S, 'though some think. from Dealing' inserted by Petty.

² S, 'profitably,' altered by Petty to 'properly, which R has.

Upon which grounds, the Bank may freely make use of the received Forty thousand Pounds, whereby the said summ, with the like summ in Credit makes Eighty thousand Pounds, and with the Twenty reserved an Hundred.

The *Hollanders* are seldom Husband-men or Foot Soldiers.

I might here add many more particulars, but being the same as have already been noted by others, I shall conclude only with adding one observation which I take to be of consequence, *viz.* That the *Hollanders* do rid their hands of two Trades, which are of greatest turmoil and danger, and yet of least profit; the first whereof is that of a common and private Soldier, for such they can hire from *England*, *Scotland*, and *Germany*, to venture their lives for Six pence a day, whilst themselves safely and quietly follow such Trades, whereby the meanest of them gain six times as much, and withal by this entertaining of Strangers for Soldiers; their [31] Coun-||try becomes more and more peopled, forasmuch as the Children of such Strangers, are *Hollanders* and take to Trades, whilst new Strangers are admitted *ad infinitum*; besides these Soldiers at convenient intervals, do at least as much work as is equivalent to what they spend, and consequently by this way of employing of Strangers for Soldiers, they People the Country and save their own Persons from danger and misery, without any real expence, effecting by this method, what others have in vain attempted by Laws for Naturalizing of Strangers¹, as if Men could be charmed to transplant themselves from their own Native, into a Foreign Country merely by words, and for the bare leave of being called by a new Name. In *Ireland* Laws of Naturalization² have had little effect, to bring in Aliens, and 'tis no wonder, since *English* Men will not go thither without

¹ Propositions for the naturalization of aliens were laid before Parliament in 1664, 1667, 1670 and 1672. *Commons' Jour.*, VIII. 555, 557; IX. 22, 29, 33, 175, 250, 267, 274, 275; *Parl. Hist.*, IV. 577. Cf. Child, *New Discourse of Trade*, ch. VII.; Cunningham, *Engl. Industry*, II. 178, 179.

² 14 & 15 Charles II. c. 13, Ireland, provided that Protestant strangers, merchants, traders and artizans, who within seven years should transport their stocks and families into Ireland, there reside and take oath of allegiance, should be adjudged to all intents free and naturalized subjects, with all the rights of natives. Cf. Mountmorres, *Hist. of the Irish Parliament*, I. 426.

they may have the pay of Soldiers, or some other advantage amounting to maintenance.

Having intimated the way by which the *Hollanders* do increase their People, I shall here digress to set down the way of computing the value of every Head || one with another, and that by the instance of People in *England*, viz. Suppose the People of *England* be Six Millions in number, that their expence at 7*l.* *per* Head be forty two Millions: suppose also that the Rent of the Lands be eight Millions, and the profit¹ of all the Personal Estate be Eight Millions more; it must needs follow, that the Labour of the People must have supplied the remaining Twenty Six Millions, the which multiplied by Twenty (the Mass of Mankind being worth Twenty Years purchase as well as Land) makes Five Hundred and Twenty Millions, as the value² of the whole People: which number divided by Six Millions, makes above 80*l.* Sterling, to be valued of each Head of Man, Woman, and Child, and of adult Persons twice as much; from whence we may learn to compute the loss we have sustained by the Plague, by the Slaughter of Men in War, and by the sending them abroad into the Service of Foreign Princes. ³The other Trade of which the *Hollanders* have rid their Hands, is the old Patriarchal Trade of being Cow-keepers, and in a great Measure of that which concerns || Ploughing and Sowing of Corn, having put that Employment [33] upon the *Danes* and *Polanders*, from whom they have their Young Cattle and Corn. Now here we may take notice, that as Trades and curious Arts increase; so the Trade of Husbandry will decrease, or else the Wages of Husbandmen must rise, and consequently the Rents of Lands must fall.

For proof whereof I dare affirm, that if all the Husbandmen of *England*, who now earn but 8*d.* a day or thereabouts, could become Tradesmen and earn 16*d.* a day (which is no great Wages 2*s.* and 2*s.* 6*d.* being usually given) that then

¹ S, 1691, 'yearly profit,' 'yearly' inserted in S by Petty, obscure, R, 'y^e Profit,' cf. errata.

² 1691, 'to be the value,' cf. errata.

³ S, R, 'The other Trade' begins a paragraph.

The Method of computing the value of Men and People. [32]

[33]

it would be the advantage of *England* to throw up their Husbandry, and to make no use of their Lands, but for Grass Horses, Milch Cows, Gardens, and Orchards, &c. which if it be so, and if Trade and Manufacture have increased in *England* (that is to say) if a greater part of the People, apply themselves to those faculties, than there did heretofore, and if the price of Corn be no greater now, than when Husbandmen were more numerous, and Tradesmen fewer;

[34] It follows from that single || reason (though others may be added) that the Rents of Land must fall: As for example, Reasons why Rents do fall. suppose the price of Wheat be 5 s. or 60 pence the Bushel; now if the Rent of the Land whereon it grows, be the third Sheaf; then of the 60 d. 20 d. is for the *Land*, and 40 d. for the *Husbandman*; But if the Husbandmans Wages, should rise one eighth part, or from 8 d. to 9 d. *per Diem*, then the Husbandmans share in the Bushel of Wheat, rises from 40 d. to 45 d. And consequently the Rent of the Land must fall from 20 d. to 15 d. for we suppose the price of the Wheat still remains the same: Especially since we cannot raise it, for if we did attempt it, Corn would be brought in to us, (as into *Holland*) from Foreign Parts, where the State of Husbandry was not changed.

And thus I have done with the first principal Conclusion, that, *A small Territory, and even a few People, may by Situation, Trade, and Policy, be made equivalent to a greater; and that convenience for Shipping, and Water-carriage, do most eminently and fundamentally conduce thereunto.* ||

[35]

C H A P. II.

That some kind of Taxes and Publick Levies, may rather increase than diminish the Wealth of the Kingdom.

What shifting of Money from hand is profitable or not.

I F the Money or other Effects, levyed from the People by way of *Tax*, were destroyed and annihilated; then 'tis clear, that such *Levies* would diminish the Commonwealth: Or if the same were exported out of the Kingdom without

any return at all, then the case would be also the same or worse¹: But if what is levied as aforesaid, be only transferred from one hand to another, then we are only to consider whether the said Money or Commodities, are taken from an improving hand, and given to an ill Husband, or *vice versa*: As for example, suppose that Money by way of *Tax*, be taken from one who spendeth the same in superfluous eating and drinking; and delivered to another || who em- [36] ployeth the same, in improving of *Land*, in *Fishing*, in working of *Mines*, in *Manufecture*, &c. It is manifest, that such *Tax* is an advantage to the State whereof the said different Persons are Members: Nay, if Money be taken from him, who spendeth the same as aforesaid upon *eating* and *drinking*, or any other perishing Commodity; and the same transferr'd to one that bestoweth it on *Cloaths*; I say, that even in this case, the Commonwealth hath some little advantage; because *Cloaths* do not altogether perish so soon as *Meats* and *Drinks*: But if the same be spent in *Furniture of Houses*, the advantage is yet a little more; if in *Building of Houses*, yet more; if in improving of *Lands*; working of *Mines*, *Fishing*, &c. yet more; but most of all, in bringing *Gold* and *Silver* into the Country: Because those things are not only not perishable, but are esteemed for Wealth at all times, and every where: Whereas other Commodities which are perishable, or whose value depends upon the Fashion; or which are contingently scarce and plentiful, are wealth, but *pro hic & nunc*, as shall be² elsewhere said ||.

In the next place if the People of any Country, who have [37] not already a full employment, should be enjoined or Taxed to work upon such Commodities as are Imported from abroad; I say, that such a *Tax*, also doth improve the Commonwealth.

Moreover, if Persons who live by begging, cheating, stealing, gaming, borrowing without intention of restoring; who by those ways do get from the credulous and careless, more than is sufficient for the subsistence of such Persons; I say, that although the State should have no present employment for such Persons, and consequently should be

¹ S, 'or worse' inserted by Petty. ² S, R, 'as hath been.' See p. 259—260.

forced to bear the whole charge of their livelyhood; yet it were more for the publick profit to give all such Persons, a regular and competent allowance by Publick Tax; than to suffer them to spend extravagantly, at the only charge of careless, credulous, and good natured People: And to expose the Commonwealth to the loss of so many able Men, whose lives are taken away, for the crimes which ill Discipline doth occasion. ||

- [38] On the contrary, If the Stocks of laborious and ingenious Men, who are not only beautifying the Country where they live by elegant *Dyet, Apparel, Furniture, Housing, pleasant Gardens, Orchards, and Publick Edifices, &c.* But are also increasing the *Gold, Silver, and Jewels* of the Country by *Trade and Arms*; I say, if the Stock of these Men should be diminished by a Tax, and transferred to such as do nothing at all, but *eat and drink, sing, play, and dance*; nay to such as study the *Metaphysicks*, or other needless *Speculation*; or else employ themselves in any other way, which produce no material thing, or things of real use and value in the Commonwealth: In this case, the Wealth of the Publick will be diminished: Otherwise than as such exercises, are recreations and refreshments of the mind; and which being moderately used, do qualifie and dispose Men to what in it self is more considerable.

- Wherefore upon the whole matter, to know whether a Tax will do good or harm: The State of the People, and their employments, must be well known; (that is to say,) [39] what part of the Peo-||ple are unfit for Labour by their Infancy or Impotency; and also what part are exempt from the same, by reason of their *Wealth, Function, or Dignities*; or by reason of their charge and employments; otherwise than in governing, directing and preserving those, who are appointed to Labour and Arts.

2. In the next place computation must be made, what part of those who are fit for Labour and Arts as aforesaid, are able to perform the work of the Nation in its present State and Measure¹.

¹ S, 'measures.

3. It is to be considered, whether the remainder can make all or any part of those Commodities, which are Imported from abroad; which of them, and how much in particular: The remainder of which sort of People (if any be) may safely and without possible prejudice to the Commonwealth, be employed in Arts and Exercises of pleasure and ornament; the greatest whereof is the Improvement of natural knowledge.

A judgment of what taxes are advantageous.

Having thus in general illustrated this point, which I think needs no other proof but illustration; I come next to intimate that no part of *Europe* hath || paid so much by way [40] of Tax, and publick contribution, as *Holland* and *Zealand* for this last 100 Years; and yet no Country hath in the same time, increased their Wealth¹ comparably to them: And it is manifest they have followed the general considerations above-mentioned; for they Tax *Meats* and *Drinks* most heavily of all; to restrain the excessive expence of those things, which 24 hours doth (as to the use of Man,) wholly annihilate; and they are more favourable to Commodities of greater duration.

Nor do they Tax according to what Men gain, but in extraordinary cases; but always according to what Men spend: And most of all, according to what they spend needlessly, and without prospect of return. Upon which grounds, their Customs upon Goods Imported and Exported, are generally low; as if they intended by them, only to keep an account of their Foreign Trade; and to retaliate upon their Neighbour States, the prejudices done them, by their Prohibitions and Impositions.

It is probable that *Holland* and *England* are grown richer under taxes

It is further to be observed, that since the Year 1636, the Taxes and Publick || Levies made in *England*, *Scotland*, and *Ireland*, have been prodigiously greater than at any time heretofore; and yet the said Kingdoms have increased in their Wealth and Strength, for these last Forty Years, as shall hereafter be shewn². [41]

It is said that the King of *France*, at present doth Levy

The difference of Princes Revenues.

¹ G has a dash in place of 'their Wealth.'

² See ch. vi.

the Fifth Part of his Peoples Wealth; and yet great Ostentation is made of the Present Riches and Strength of that Kingdom. Now¹ great care must be had in distinguishing between the Wealth of the People, and that of an absolute Monarch; who taketh from the People, where, when, and in what proportion he pleaseth. Moreover², the Subjects of two Monarchs may be equally Rich, and yet one Monarch may be double as Rich as the other; *viz.* If one take the tenth part of the Peoples Substance to his own dispose, and the other but the 20th. nay the Monarch of a poorer People, may appear more splendid and glorious, than that of a Richer; which perhaps may be somewhat the case of *France*, as hereafter shall be examined. As an instance and applica-

[42] tion of what hath been || said, I conceive that in *Ireland* wherein are about 1200 Thousand People, and near³ 300 Thousand Smokes⁴ or Hearths⁵; It were more tolerable for the People, and more profitable for the King; that each Head paid 2*s.* worth of Flax, than that each smoke should pay 2*s.* in Silver; And that for the following reasons.

1. *Ireland* being under peopled, and Land, and Cattle

¹ S, 'Although,' altered to 'Now' by Petty.

² S, 'Moreover' inserted by Petty.

³ S, 'about,' altered to 'near' by Petty.

⁴ These estimates, being larger than those given in the *Polit. Anat.*, p. 141, argue the later completion of the *Polit. Arith.* Cf. p. 236.

⁵ The 8 August, 1662 the Irish Commons, after a long debate, unanimously agreed to abolish the court of wards and to substitute a tax of two shillings annually upon all the hearths in Ireland for ever, according to a similar tax in England. Mountmorres, *Hist. of the Irish Parlt.*, II. 126, 127; see 14 & 15 Charles II. c. 17, Ireland. The duty was payable by the occupier at one entire payment on the 10th January each year, and was recoverable by distress and sale of his goods. No persons were exempt except those who lived upon alms and widows who procured certificates from two justices of the peace yearly, in writing, that the houses which they inhabited were of no greater value than 8*s.* a year and that they did not have chattels to the value of 4*£*. Evasions led to the passage of 17 & 18 Charles II. c. 18, Ireland (1665), which imposed fines for the concealment of hearths and provided that houses having no fixed hearth should be charged two hearths. Until 1704 this tax was farmed by counties to the highest bidder. Howard, *A Treatise of the Exchequer and Revenue of Ireland*, I. 89—91. The tax, was beyond question, exceedingly oppressive, and evasions must have been so frequent as to render the returns but an imperfect basis for calculating the population.

That *Ireland* may be more advantageously taxed by a Pole in Flax

being very cheap; there being every where store of Fish and Fowl; the ground yielding excellent Roots (and particularly¹ that bread-like root *Potatoes*) and withal they being able to perform their Husbandry, with such harness and tackling, as each Man can make with his own hands; and living in such Houses as almost every Man can build²; and every House-wife being a Spinner and Dyer of Wool and Yarn, they can live and subsist after their present fashion, without the use of Gold or Silver Money; and can supply themselves with the necessaries above named, without labouring 2 Hours *per diem*: Now it hath been found, that by reason of Insolvencies arising, rather from the uselessness than want of Money among these poor People; that from [43] 300 Thousand Hearths, which should have yielded 30 Thousand Pound *per annum*; not 15 Thousand Pound of Money could be Levied: Whereas it is easily imagined, that four or five People dwelling in that Cottage, which hath but one smoke; could easily have planted a ground-plot of about 40 foot square with Flax; or the 50 part of an Acre; for so much ground will bear eight or ten Shillings worth of that Commodity; and the Rent of so much ground, in few places amounts to a penny *per annum*. Nor is there any skill requisite to this practice, wherewith the Country is not already familiar. Now as for a Market for the Flax; there is Imported into *Holland* it self, over and above what that Country produces; as much Flax, as is there sold for between Eightscore and Two Hundred Thousand Pound; and into *England* and *Ireland* is Imported as much Linnen Cloth

¹ S, inserts 'great plenty of that.'

² The original form of S is here represented by Roman type, Petty's corrections by Italic:

'tackle, as each man can make, and liveing in such Houses as
make wth his own hands
almost every man can build; and euery housewife.'

The interlined correction, which is much crowded, appears to have been read into the line above it, giving the text of 1690, instead of the sense which Petty intended, viz. such Houses as almost every man can make with his own hands. R, 'Tackling as each man can make, & living in such Houses as (almost) every man can build, & every Housewife.'

made of Flax, and there spent, as is worth above $\frac{1}{2}$ a Million of Money. As shall hereafter be shewn¹.

Wherefore having shewn, that Silver Money is useless to [44] the poor People of *Ireland*; that half the Hearth Money could not be raised by reason thereof; that the People are not a fifth part employed; that the People and Land of *Ireland*, are competently qualified for Flax; That one Pennyworth of Land, will produce Ten Shillings² worth of the same; and that there is Market enough and enough, for above an Hundred Thousand Pounds worth; I conceive my Proposition sufficiently proved; at least to set forwards and promote a practice, which both the present Law and Interest of the Country doth require: Especially, since if all the Flax so produced should yield nothing, yet there is nothing lost; the same time having been worse spent before. Upon the same grounds, the like Tax of 2 s. *per* Head, may be raised with the like advantage upon the People of *England*; which will amount to Six Hundred Thousand Pound *per annum*; to be paid in Flax, Manufactured, into all the sorts of *Linnens, Threds, Tapes, and Laces*; which we now receive from *France, Flanders, Holland, and Germany*; the value whereof doth far exceed the summ last mentioned, as hath appeared by the examination of particulars. ||

[45] It is observed by Clothiers, and others, who employ great numbers of poor people, that when Corn is extremely plentiful³, that the Labour of the poor is proportionably dear: And scarce to be had at all (so licentious are they who labour only to eat, or rather to drink.) Wherefore when so many Acres sown with Corn, as do usually produce a sufficient store for the Nation, shall produce perhaps double to what is expected or necessary; it seems not unreasonable

Duties put upon redundant Commodities may be a harmless Tax.

¹ The promise was not kept.

² S, 'about 10 s.'

³ S, 'extream plentiful.'

⁴ The common assumption of economic theory has been precisely the reverse, viz. that wages will be low when food is plentiful. Petty's assertion, however, is confirmed by the observant author (PW. Temple, or J. Cunningham) of *An Essay on Trade and Commerce* (1770), pp. 14—16, and Ricardo admitted that it was true of Ireland even in his time. *Letters to Malthus*, 138. See also Malthus, *Political Economy* (1820), pp. 382—388, Cunningham, *English Industry*, II. 689.

that this common blessing of God, should be applied, to the common good of all people, represented by their Sovereign; much rather than the¹ same should be abused, by the vile and brutish part of mankind, to the prejudice of the Common-Wealth: And consequently, that such surplusage of Corn, should be sent to publick Store-houses; from thence to be disposed of, to the best advantage of the Publick.

Now if the Corn spent in *England*, at five shillings *per* Bushel *Wheat*, and two shillings six pence *Barley*, be worth ten Millions *Communibus annis*; it follows that in years of great plenty, when the said Grains are one third part || cheaper; that a vast advantage might accrue to the Common-^[46] Wealth, which now is spent in over-feeding of the People, in quantity or quality; and so indisposing them to their usual Labour.

The like may be said of *Sugar*, *Tobacco*, and *Pepper*; which custom hath now made necessary to all sorts of people; and which the over-planting of them, hath made unreasonably cheap: I say it is not absurd, that the Publick should be advantaged by this extraordinary plenty.

That an *Excise* should be laid upon *Corrants*² also, is not unreasonable; not only for this, but for other reasons also

The way of the present Militia or Trained-Bands, is a gentle Tax upon the Country; because it is only a few days Labour in the year, of a few Men in respect of the whole; using their own goods, that is their³ own Arms. Now if there be three Millions of Males in *England*, there be above two hundred thousand of them, who are between the age of sixteen and thirty, unmarried persons; and who live by their || Labour and Service; for of so many or thereabouts,^[47] the present Militia consists.

Now if an hundred and five⁴ thousand of these, were Armed, and Trayned, as Foot; and fifty thousand as Horse; (Horse being of special advantage in Islands)⁵ the said Forces at Land, with thirty thousand Men at Sea; would

¹ S, R, 'much less that the.'

² G, 'corn.'

³ S, 'of their.'

⁴ S, R, 1691, 'fifty,' cf. errata?

⁵ S, '(Horse being of speciall advantage in islands)' is inserted by Petty.

by Gods ordinary blessing, defend this Nation, being an Island, against any Force in view: But the charge of Arming, Disciplining, and Rendezvousing all these Men, twice, or thrice a year; would be a very gentle Tax, Levyed by the people themselves, and paid to themselves. Moreover if out of the said number $\frac{1}{3}$ part were selected, of such as are more than ordinarily fit and disposed¹ for War, and to be Exercised, and Rendezvoused fourteen or fifteen times *per annum*; the charge thereof being but a fortnights Pay in the year, would be also a very gentle Tax.

Lastly, If out of this last mentioned number, $\frac{1}{3}$ again should be selected, making about twelve² thousand Foot, [48] and near³ six thousand Horse, to be Exercised, || and Rendezvoused forty days in the year; I say that the charge of all these three Militias, allowing the latter six weeks Pay *per annum*; would not cost above one hundred and twenty thousand pound *per annum*; which I take to be an easie burthen, for so great a benefit.

For supplying the Navy, and Merchants with Seamen.

Forasmuch as the present Navy of *England* requires thirty six thousand Men to Man it; and for that the *English* Trade of Shipping, requires about forty eight thousand Men, to manage it also; it follows, that to perform both well, there ought to be about seventy two thousand Men, (and not eighty four thousand) competently⁴ qualified for these Services: For want whereof we see, that it is a long while, before a Royal Navy can be manned; which till it be, is of no effectual use, but lies at charge. And we see likewise upon these occasions, that Merchants are put to great straights, and inconveniences; and do pay excessive rates for the carrying on their Trade. Now if twenty four thousand able bodied Tradesmen, were by⁵ six thousand of them⁶ *per annum*, brought up and fitted for Sea-Service; and for ||

¹ S, 'and disposed' inserted by Petty.

² S, R, 1691, 'sixteen.' Cf. errata?

³ S, R, omit 'near.'

⁴ S, '& not 84000' inserted by Petty, R, 'about 84000 completely,' altered to 'about 72000 completely,' by Petty.

⁵ G, 'whereby.' The 1683 ed. probably was not printed from S or R, as the words 'were by' are plainly written in both.

⁶ S, 'of them' inserted by Petty, not in R.

their encouragement allowed 20*s. per annum* for every year [49] they had been at Sea, even when they stay at home, not exceeding 6*l.* for those, who have served six years or upward; it follows, that about 72000*l.* at the *medium* of 3*l. per* Man, would Salarie the whole number of twenty four thousand¹; and so, forasmuch as half the Seamen, which mannage the Merchants Trade, are supposed to be always in Harbour, and are about twenty four thousand² Men, together with the said half of the Auxilliaries last mentioned, would upon all³ emergencies, Man out the whole *Royal Navy* with thirty six thousand⁴, and leaving to the Merchants twelve thousand of the abler Auxilliaries, to perform their business in Harbour, till others come home from Sea; and thus thirty six thousand, twenty four thousand, and twelve thousand, make the seventy two thousand above mentioned⁵: I say that more than this sum of 72000*l.* is fruitlesly spent, and over paid by the Merchants, whensoever a great Fleet is to be fitted out. Now these whom I call Auxilliary Seamen, are such as have another Trade besides, wherewith || to maintain themselves, [50] when they are not employed at Sea; and the charge of maintaining them, though 72000*l. per annum*, I take to be little or nothing, for the reasons above mentioned, and consequently an easie Tax to the people, because Leavyed by, and paid to themselves.

As we propounded that *Ireland* should be Taxed with A Herring
Flax, and *England* by *Linnen*, and other *Manufecture* of Tax upon
the same; I conceive that *Scotland* also might be Taxed as Scotland.
much, to be paid in *Herrings*, as *Ireland* in *Flax*: Now the
three Taxes (*viz.*) of *Flax*, *Linnen*, and *Herrings*, and the

¹ S, 'of 24000' inserted by Petty, not in R.

² S, 'men, the said halfe, together with halfe the Auxiliaries,' R, 'men, together with *the said* [Italicized words inserted] halfe the Auxiliaries last mentioned, would upon emergencies man out the whole Royall Navy, leaving to the Merchants 12 Thousand of the abler auxiliaries to performe their business in harbour, till others come back from the Sea. I say that.'

³ S, 'all' inserted by Petty.

⁴ S, 'with 36000' inserted by Petty.

⁵ S, 'And thus 36000, 24000 and twelve make up y^e 72000 above mentioned' inserted by Petty, not in R.

maintainance of the triple *Militia*, and of the *Auxilliary Seamen* above-mentioned, do all five of them together, amount to one Million of mony, the raising whereof is not a Million spent, but gain unto the Common-Wealth, unless it can be made appear, that by reason of all, or any of them, the Exportation of *Woollen Manufactures*, *Lead*, and *Tin*, are lessened; or of such Commodities, as our own *East* and *West India* Trade do produce, forasmuch as I conceive, that the [51] Exporta-||tion of these last mentioned Commodities, is the *Touch-stone* whereby the Wealth of *England* is tryed, and the *Pulse* whereby the Health of the Kingdom may be discerned.

C H A P. III.

That France cannot by reason of natural, and perpetual Impediments, be more powerful at Sea, than the English, or Hollanders¹ now are, or may be.

The qual-
ities of
Ships fit
for the de-
fence of
England.

Power at Sea consists chiefly of *Men*, able to fight at Sea, and that in such Shipping, as is most proper for the Seas wherein they serve; and those are in these Northern Seas, Ships from between three hundred to one thousand three hundred Tuns; and of those such as draw much Water, and have a deep Latch in the Sea, in order to keep a good Wind, and not to fall to Leeward, a matter of vast advantage in Sea Service: Wherefore it is to be examined, 1. Whether the King of *France*, hath Ports in the Northern Seas (where || [52] he hath most occasion for his Fleets of War, in any contests² with *England*) able to receive the Vessels above-mentioned, in all Weathers, both in Winter and Summer Season. For if the King of *France*, would³ bring to Sea an equal number of fighting Men, with the *English* and *Hollanders*, in small floaty Leeward Vessels, he would certainly be of the weaker

¹ S, R, omit 'now are, or may be.' R, 'than England or the Dutch,' altered to 'or the low countries' by Petty.

² S, 'with England' inserted by Petty, not in R.

³ S, 'could,' R, 'would.' 1691, 'would' corrected to 'should' in errata.

side For a Vessel of one thousand Tuns manned with five hundred Men, fighting with five Vessels of two hundred Tuns, each manned with one hundred Men apiece, shall in common reason have the better offensively, and defensively; forasmuch as the great Ship can carry such Ordnance, as can reach the small ones at a far greater distance, than those can reach, or at least hurt the other; and can batter, and sink at a distance, when small ones can scarce peirce.

Moreover it is more difficult for Men out of a small Vessel, to enter a tall Ship, than for Men from a higher place, to leap down into a lower; nor is small shot so effectual upon a tall Ship, as *vice versa*. ||

And as for Vessels drawing much water, and consequently [53] keeping a good Wind, they can take or leave Leeward Vessels, at pleasure, and secure themselves from being boarded by them: Moreover the windward Ship, has a fairer mark at a Leeward Ship, than *vice versa*; and can place her shot upon such parts of the Leeward Vessel, as upon the next Tack will be under water.

Now then the King of *France*, having no Ports able to receive large windward Vessels, between *Dunkirk* and *Ushant*, what other Ships he can bring into those Seas, will not be considerable. As for the wide Ocean, which his Harbours of *Brest*, and *Charente*¹, do look into; it affordeth him no advantage upon an Enemy; there being so great a Latitude of engaging or not, even when the Parties are in sight of each other.

Wherefore, although the King of *France* were immensely rich, and could build what Ships he pleased, both for number, and quality; yet if he have not Ports to receive, and shelter, that sort and size of Shipping, which² is fit for his purpose; the said Riches will in this || case be fruitless, and a mere [54] expence without any return, or profit. Some will say that other Nations cannot build so good Ships as the *English*; I do indeed hope they cannot; but because it seems too possible, that they may sooner or later, by Practice and

¹ S, R, G, 'Brouage' altered to 'Charente' in S by Petty.

² S, R, 'as' altered to 'wh' in R.

Experience; I shall not make use of that Argument, having bound my self to shew, that the impediments of *France*, (as to this purpose) are natural, and perpetual. Ships, and Guns do not fight of themselves, but Men who act and manage them; wherefore it is more material to shew; That the King of *France*, neither hath, nor can have Men sufficient, to Man a Fleet, of equal strength to that of the King of *England*. (*viz.*)

The King of *Englands* Navy, consists of about seventy thousand Tuns of Shipping, which requires thirty six thousand Men to Man it; these Men being supposed to be divided into eight parts, I conceive that one eighth part, must be persons of great Experience, and Reputation, in Sea Service: another eighth part must be such as have used the Sea seven years [55] and upwards; \parallel half of them, or $\frac{3}{4}$ parts more, must be such as have used the Sea above a twelvemonth, *viz.* two, three, four, five, or six years, allowing but one quarter of the whole Complements, to be such as never were at Sea at all, or at most but one Voyage, or upon one Expedition; so that at a *medium* I reckon, that the whole Fleet must be Men of three or four years growth, one with another. *Fournier*¹, a late judicious Writer, makeing it his business to persuade the World, how considerable the King of *France* was, or might be at Sea, in the ninety second and ninety third pages of his *Hydrography*, saith, That there was one place in *Britany*, which had furnished the King with one thousand four hundred Seamen, and that perhaps the whole Sea-Coast of *France*, might have furnished him with fifteen times as many: Now supposing his whole Allegation were true, yet the said number amounts but to twenty one thousand; all which, if the whole Trade of Shipping in *France* were quite and clean abandoned, would not by above a third, Man out a Fleet equivalent, to that of the King of *England*: And if \parallel

¹ *Hydrographie contenant la theorie et la pratique de toutes les parties de la navigation. Composé par le Pere Georges Fournier. A Paris, chez Michel Solv. M.D.C.XLIII, f°. "Les gens de Mer y sont en telle quantité, que durant le siège de la Rochelle, la Roy tira d'un seul Bourg quatorze cents Maletots, Soldats, bien que ce lieu ne soit pas (possible) le quinzième de cette coste en bonté & reputation."* The estimate that the coast could furnish fifteen times as many is omitted from the second edition of *Fournier* (1667), p. 69.

The qualifications of Seamen for defence.

The Number of Seamen in *France*.

the Trade were but barely kept alive, there would not be one [56] third part Men enough, to Man the said Fleet.

But if the Shipping Trade of *France*, be not above a quarter as great as that of *England*, and that one third part of the same, namely the Fishing Trade to the Banks of *Newfoundland*, is not peculiar, nor fixt to the *French*; then I say that if the King of *England* (having power to Press Men) cannot, under two or three months time Man his Fleet; then the King of *France*, with less than a quarter of the same help, can never do it at all; for in *France* (as shall elsewhere be shewn¹) there are not above one hundred and fifty thousand Tun of Trading Vessels, and consequently not above fifteen thousand Seamen, reckoning a Man to every ten Tun. As it has been shewn that the King of *France*, cannot at present Man such a Fleet, as is above described, we come next to shew that he never can, being under natural, and perpetual Impediments: viz. 1. If there be but fifteen thousand Seamen in all *France*, to manage its Trade, it is not to be || supposed, that the said Trade should be extinguished, nor [57] that it should spare above five of the said fifteen thousand towards manning the Fleet which requires thirty five thousand.

Now the deficient thirty thousand must be supplied, one² of these four³ ways, either, first by taking in Landmen, of which sort there must not be above ten thousand, since the Seamen will never be contented, without being the major part, nor do they heartily wish well to Landmen at all, or rejoyce even at those Successes, of which the Landmen can claim any share; thinking it hard that themselves, who are bred to miserable, painful, and dangerous Employments, (and yet profitable to the Commonwealth) should at a time when booty and purchase is to be gotten, be clogged or hindered, by any conjunction with Landmen, or forced to admit those, to an equal share with themselves. 2. The Seamen which we suppose twenty thousand, must be had, that is hired from other Nations, which cannot be without tempting them with so much Wages, as exceeds what is ||

The ways whereby the *French* must increase Seamen.

Why Seamen dislike Landmen.

¹ See p. 251, where the French are assigned 100,000 tons.

² S, 'out.'

³ The fourth way seems to be the general increase of French trade, p. 283.

The danger of
English
Seamen
their serving the
French.

How Men
learn to
be good
Seamen.

[58] given by Merchants, and withal to counterpoise the danger of being hanged by their own Prince, and allowed no Quarter if they are taken; the trouble of conveying themselves away, when Restraints and Prohibitions are upon them; and also the infamy of having been Apostates, to their own Country, and Cause: I say their Wages must be more than double, to what their own Prince gives them, and their assurance must be very great, that they shall not be at long run abused or slighted¹ by those who employed them; (as hating the Traitor, although they love the Treason.) I say moreover, that those who will be thus tempted away, must be of the basest, and lewdest sort of Seamen, and such as have not enough of Honour and Conscience, to qualifie them for any Trust, or gallant Performance. 3. Another way to increase² Seamen, is to put great numbers of Landmen upon Ships of War, in order to their being Seamen; but this course cannot be effectual, not only for the above mentioned Antipathy, [59] between Landmen, and Seamen; || but also, because it is seen, that Men at Sea do not apply themselves to Labour and Practice, without more necessity than happens in over-manned Shipping. For where there are fifty Men in a Vessel, that ten can sufficiently Navigate, the supernumerary forty will improve little: But where there shall be of ten but one or two supernumeraries, there necessity will often call upon every Man to set his hand to the Work, which must be well done at the peril of their own lives. Moreover Seamen shifting Vessels almost every six or twelve months, do sometimes Sail in small Barks, sometimes in midling Ships, and sometimes in great Vessels of Defence; sometimes in Lighters, sometimes in Hoighs, sometimes in Ketches, sometimes in three Masted Ships, sometimes they go to the Southward, sometimes to the Northward, sometimes the³ Coast, sometimes they cross the Ocean; by all which variety of Service, they do in time compleat themselves, in every Part, and Circumstance of their Faculty: Whereas those [60] who go out for a Sum-||mer, in a Man of War, have not that

¹ S, 'or slighted' inserted by Petty.

² G, 'exonerate.'

³ S, 1691, 'they.' See errata?

variety of Practice, nor a direct necessity of doing any thing at all.

Besides it is three or four years at a *medium*, wherein a Seaman must be made; neither can there be less than three Seamen, to make a fourth, of a Landman: Consequently the fifteen thousand Seamen of *France*, can increase but five thousand Seamen in three or four years, and unless their Trade should increase with their Seamen in proportion, the King must be forced to bear the charge of this improvement, out of the Publick Stock, which is intolerable. So as the Question which now remains, is, whether the Shipping Trade of *France* is like to increase? Upon which account it is to be considered, 1. That *France* is sufficiently stored, with all kind of Necessaries within it self; as with *Corn, Cattle, Wine, Salt, Linnen Cloth, Paper, Silk, Fruits, &c.* So as they need little Shipping, to Import more Commodities of Weight, or Bulk; neither is there any thing of Bulk Exported out of *France*, but *Wines, and Salt*; the weight where-||of is under [61] one hundred thousand Tun¹ *per annum*, yielding not employment to above twenty five thousand Tun of Shipping, and these are for the most part *Dutch and English*, who are not only already in Possession of the said Trade, but also are better fitted to maintain it, than the *French* are, or perhaps ever can be: And that for the following Reasons. (*viz.*) 1. Because the *French* cannot Victual so cheap as the *English, and Dutch*, nor Sail with so few Hands. 2. The *French*, for want of good Coasts and Harbours, cannot keep their Ships in Port, under double the Charge that the *English and Hollanders* can. 3. by reason of Paucity, and distance of their Ports, one from another, their Seamen and Tradesmen relating to Shipping, cannot Correspond with, and Assist one another, so easily, cheaply, and advantageously, as in other places. Wherefore if their Shipping Trade, is not likely to increase within themselves, and much less to increase, by their beating out the *English, and Hollanders*, from being the Carriers of the World; it fol-||lows, that their Seamen will not be increased, [62]

Whether the Shipping Trade of *France* is like to increase.

Reasons why it cannot

¹ In margin of S, opposite 'one hundred thousand Tun,' stands 'Qre' in the hand of the copyist.

by the increase of their said Trade: Wherefore, and for that they are not like to be increased, by any of the several ways above specified, and for that their Ports are not fit to receive Ships of Burthen, and Quality, fit for their purpose; and that by reason of the less fitness of their Ports, than that of their Neighbours; I conceive, that what was propounded, hath been competently proved.

The afore-named *Fournier*, in the ninety second and ninety third pages of his *Hydrography*, hath laboured to prove the contrary of all this, unto which I refer the Reader: Not thinking his Arguments of any weight at all, in the present case. Nor indeed doth he make his Comparisons, with the *English* or *Hollanders*, but with the *Spaniards*, who, nor the Grand Seignior, (the latter of whom hath greater advantages, to be powerful at Sea than the King of *France*) could ever attain to any illustrious greatness in Naval Power: Having often attempted, but never succeeded in the same. ||

[63] Nor is it easie to believe, that the King of *England* should for so many years, have continued his Title to the *Sovereignty* of the *Narrow Seas*, against his Neighbours (ambitious enough to have gotten it from him) had not their Impediments been Natural, and Perpetual, and such, as we say, do obstruct the King of *France*. ||

[64]

C H A P. IV.

That the People and Territories of the King of England, are naturally near¹ as considerable for Wealth and Strength, as those of France.

Of comparison between the Territories of *England* and *France*.

THE Author of the State of *England*², among the many useful truths, and observations he hath set down; delivers the Proportion, between the Territories of *England* and *France*, to be as Thirty to Eighty two; the which if it be true, then

¹ In S, 'neer' is inserted and 'naturally' is imperfectly erased.

² *Angliæ Notitia; or the present State of England*. By Edward Chamberlayne, 1672, p. 251, "the area of England is in comparison to France as 30 to 82."

England, Scotland, and Ireland, with the Islands unto them belonging, will, taken all together, be near as big as *France*. Tho I ought to take all advantages for proving the Paradox in hand; yet I had rather grant that *England, Scotland, and Ireland*, with the Islands before mentioned; together with the Planted parts of *Newfoundland, New-England, New-Netherland, Virginia, Mary-Land, Carolina, Jamaica, Burmoudas, Barbadoes*, and all || the rest of the *Carribby Islands*, with [65] what the King hath in *Asia* and *Africa*¹, do not contain so much² *Territory* as *France*, and what Planted Land the King of *France* hath also in *America*. And if any Man will be Heterodox in behalf of the *French Interest*; I would be contented against my knowledge and judgment, to allow the King of *France's Territories*, to be a seventh, sixth, or even a fifth greater, than those of the King of *England*; believing that both Princes have more Land, than they do employ to its utmost use.

And here I beg leave, (among the several matters which I intend for serious,) to interpose a jocular, and perhaps ridiculous digression, and which I indeed desire Men to look upon, rather as a Dream or Resvery, than a rational Proposition; the which is, that if all the *moveables* and People of *Ireland*, and of the Highlands of *Scotland*, were transported into the rest of *Great Britain*; that then the King and his Subjects, would thereby become more *Rich* and *Strong*, both *offensively* and *defensively*, than now they are. ||

A Proposition for quitting *Ireland* & the Highlands of *Scotland*.

'Tis true, I have heard many Wise Men say, when they [66] were bewailing the vast losses of the *English*, in preventing and suppressing Rebellions in *Ireland*, and considering how little profit hath returned, either to the King or Subjects of *England*, for their Five Hundred³ Years doing and suffering in that Country; I say, I have heard Wise Men (in such their Melancholies⁴) wish, that (the People of *Ireland* being saved)

¹ S, 'with what y^e King hath in Asia & Africa' inserted by Petty.

² S, R, 'more territory than France,' altered in S to 'so much territory as France.'

³ S, '400,' altered by Petty to '500,' R, '500.'

⁴ S, 'Melancholy.'

*Island*¹ were sunk under Water: Now it troubles me, that the Distemper of my own mind in this point, carries me to dream, that the benefit of those wishes, may practically be obtained, without sinking that vast Mountainous Island under Water, which I take to be somewhat difficult; For although *Dutch* Engineers may drain its Bogs; yet I know no Artists that could sink its Mountains. If Ingenious and Learned Men (among whom I reckon Sir *Tho. More*, and *Des Cartes*²) have disputed, That we who think our selves awake, are or may be really in a Dream; and since the greatest absurdities of Dreams, are but a Preposterous and Tumultuàry contexture [67] of realities; I will crave the || umbrage of these great Men last named, to say something for this wild conception, with submission to the better judgment of all those that can prove themselves awake.

If there were but one Man living in *England*, then the benefit of the whole Territory, could be but the livelyhood of that one Man: But if another Man were added, the rent or benefit of the same would be double, if two, triple; and so forward until so many Men were Planted in it, as the whole Territory could afford Food unto: For if a Man would know what any Land is worth, the true and natural Question must be, How many Men will it feed? How many Men are there to be fed? But to speak more practically, Land of the same quantity and quality in *England*, is generally worth four or five³ times as much as in *Ireland*; and but one quarter, or third of what it is worth in *Holland*; because *England* is four or five times⁴ better Peopled than *Ireland*, and but a quarter so well as *Holland*. And moreover, where the Rent of Land is advanced by reason of Multitude of People; there the [68] number of Years purchase, for which || the Inheritance may be sold, is also advanced, though perhaps not in the very same Proportion; for 20 s. *per annum* in *Ireland*, may be

¹ S, R, 'that the people of Ireland being saved, that that Island.'

² Descartes' first meditation, *Œuvres publ. par* V. Cousin (1824), I. 237—239. Can Petty have thought that the story of Utopia was narrated in the guise of a dream?

³ S, R, '3 or 4,' altered in S to '4 or 5.'

⁴ S, R, '4 times.'

worth but 8*l.* and in *England* where Titles are very sure, above 20*l.* in *Holland* above 30*l.*¹

I suppose, that in *Ireland* and the High-Lands in *Scotland*, there may be about one Million and Eight hundred thousand People, or about a fifth part of what is in all the three Kingdoms: Wherefore the first Question will be, whether *England*, *Wales*, and the Low-Lands of *Scotland*, cannot afford Food, (that is to say) *Corn*, *Fish*, *Flesh*, and *Fowl*, to a fifth part more People, than are at the present planted upon it, with the same Labour that the said fifth part do now take where they are? For if so, then what is propounded is naturally possible. 2. It is to be enquired, What the *value* of the *immovables* (which upon such removal must be left behind) are worth? For if they be worth less, than the advancement of the Price of Land in *England* will amount unto; then the Proposal is to be considered. 3. If the *Reliſt Lands*, and the *immovables* left behind upon them, may be || sold for [69] Money; or if no other Nation shall dare meddle with them, without paying well for them; and if the Nation who shall be admitted, shall be less able to prejudice and annoy the Transplantees into *England* then before; then I conceive that the whole proposal will be a pleasant and a profitable² Dream indeed³.

As to the first point, whether *England* and the Low-Lands of *Scotland*, can maintain a fifth part more People than they now do (that is to say) Nine Millions of Souls in all? For answer thereunto, I first say, that the said Territories of *England*, and the Low-Land of *Scotland*, contain about Thirty Six Millions of Acres, that is four Acres for every Head, Man, Woman, and Child; but the United Provinces do not allow above one Acre and $\frac{1}{2}$, and *England* it self rescinding *Wales*, hath but Three Acres to every Head, according to the present State of Tillage and Husbandry. Now if we consider that *England* having but three Acres to a Head as aforesaid, doth so abound in Victuals, as that it maketh Laws

¹ S, '30*l.*' 1691, '3*l.*'

² S, 'yea a profitable' inserted by Petty.

³ Petty returns to his pleasant and profitable dream in the *Treatise of Ireland*, 1687.

[70] against the Importation of *Cattle*, || *Flesh*, and *Fish* from abroad; and that the draining of *Fens*, improving of *Forests*, inclosing of *Commons*, Sowing of *St. Foyne* and *Clovergrass*, be grumbled against by *Landlords*¹, as the way to depress the price of *Viſtuals*; then it plainly follows, that less than three Acres improved as it may be, will serve the turn, and consequently that four will suffice abundantly. I could here set down the very number of Acres, that would bear *Bread* and *Drink*, *Corn*, together with *Flesh*, *Butter*, and *Cheese*, sufficient to viſtual Nine Millions of Persons, as they are Viſtually in Ships, and regular Families; but shall only say in general; that Twelve Millions of Acres viz. $\frac{1}{3}$ of 36 Millions, will do it, supposing that *Roots*, *Fruits*, *Fowl*, and *Fish*, and the ordinary profit of *Lead*, *Tin*, *Iron-Mines*, and *Woods*, would piece up any defect, that may be feared.

That the value of all the quitted Lands and immovable goods and charge of transplanta-tion are not worth above 17 Millions.

As to the second, I say, that the Land and Housing in *Ireland*, and the High-Lands of *Scotland*, at the present Market rates, are not worth Thirteen² Millions of Money; nor would the actual charge of making the Transplantation proposed, amount to four² Millions more: || So then the Question will be, whether the benefit expected from this Transplantation, will exceed Seventeen Millions?²

[71] To which I say, that the advantage will probably be near four³ times the last mentioned summ, or about Sixty nine Millions, Three Hundred thousand Pounds⁴. For if the Rent of all *England* and *Wales*, and the Low-Lands of *Scotland*, be about Nine Millions *per annum*; and if the fifth part of the People be superadded, unto the present Inhabitants of those Countries; then the Rent will amount unto Ten Millions 8000*l.* and the number of Years purchase, will

¹ It does not appear that much practical result followed from the recommendation of clover, sainfoin and lucerne until the eighteenth century. Cunningham, *English Industry*, II. 183, Rogers, *Hist. of Agriculture and Prices*, v. 59, cf. however v. 62. Aubrey writes (before 1685), "Memorandum. Great increase of sanfoine now, in most places fitt for itt." *Natural History of Wiltshire*, ed. Britton, ch. X. p. 11.

² S, R, "10 ..2 ..12," altered in S to "13. .4...17."

³ S, '6' altered to '4.'

⁴ S, 'above 72 millions' altered to 'about 69,300,000.'

rise from seventeen and $\frac{1}{2}$, to a Fifth part more, which is twenty one. So as the Land which is now worth but Nine Millions *per annum*, at seventeen $\frac{1}{2}$ Years purchase, making 157 Millions and $\frac{1}{2}$, will then be worth Ten Millions Eight Hundred thousand Pounds, at Twenty one Years purchase; *viz.* Two Hundred Twenty Six Millions, and Eight Hundred thousand Pounds, that is, Sixty nine Millions, and Three Hundred thousand Pounds more than it was before. ||

And if any Prince willing to enlarge his Territories, will [72] give any thing more than Six $\frac{1}{2}$ Millions or¹ half the present value for the said relinquished Land, which are estimated to be worth Thirteen² Millions; then the whole profit, will be above Seventy Five³ Millions, and Eight Hundred 600 *l.* Above four⁴ times the loss, as the same was above computed. But if any Man shall object, that it will be dangerous unto *England*, that *Ireland* should be in the Hands of any other Nation; I answer in short, that that Nation, whoever shall purchase it (being divided by means of the said purchase,) shall not be more able to annoy *England*, than now in its united condition. ⁵Nor is *Ireland* nearer *England*, than *France* and *Flanders*.

That those who purchase *Ireland* shall weaken themselves.

Now if any Man shall desire a more clear explanation, how, and by what means, the Rents of Lands shall rise by this closer cohabitation of People above described? I answer, that the advantage will arise in transplanting about Eighteen Hundred thousand People, from the poor and miserable Trade of Husbandry, to more beneficial Handicrafts: For when the superaddition is made, a ve-||ry little addition of [73] Husbandry to the same Lands will produce a fifth part more of Food, and consequently the additional hands, earning 40 *s.* *per annum* (as they may very well do, nay⁶ to 8 *l.* *per annum*) at some other Trade; the Superlucration will be above Three

¹ S, 'more than the 7 millions for,' altered to 'more than the 6 $\frac{1}{2}$ millions or y^a present value for.' R, 'give 3 millions for.'

² S, R, '10,' altered in S to '13.'

³ S, R, '72,' altered in S to '75'

⁴ S, R, 'or six,' altered in S to 'above 4,' cf. Errata.

⁵ S, 'Nor is...Flanders' added by Petty, not in R.

⁶ S, R, omit 'do, nay.'

Millions and Six Hundred thousand¹ Pounds *per annum*, which at Twenty Years purchase is Seventy² Millions. Moreover, as the inhabitants of Cities and Towns, spend more Commodities, and make greater consumptions, than those who live in wild thin peopled Countries; So when *England* shall be thicker peopled, in the manner before described, the very same People shall then spend more, than when they lived more sordidly and inurbanely, and further asunder, and more out of the sight, observation, and emulation of each other; every Man desiring to put on better Apparel when he appears in Company, than when he has no occasion to be seen.

I further add, that the charge of the *Government, Civil,*
 [74] *Military, and Ecclesiastical,* would be more *cheap, safe, and effectual* in this condition of *closer* || co-habitation than otherwise; as not only reason, but the example of the United Provinces doth³ demonstrate.

That the
 difference
 between
England's
 & *France's*
 Territory
 is not
 material.

But to let this whole digression pass for a *mere Dream*, I suppose 'twill serve to prove, that in case the King of *Englands Territories*, should be a little less than those of the King of *France*, that forasmuch as neither of them are over-peopled, that the difference is not material to the Question in hand; wherefore supposing the King of *France's* advantages, to be little or nothing in this point of *Territory*; we come next to examine and compare, the number of Subjects which each of these Monarchs doth govern.

The Book called the State of *France*, maketh that Kingdom to consist of Twenty Seven thousand⁴ Parishes; and another Book written by a substantial Author, who professedly inquires into the State of the Church and Churchmen of *France*, sets it down as an extraordinary case, that a *Parish* in *France* should have Six Hundred Souls; wherefore I suppose that the said Author (who hath so well examined
 [75] the mat-||ter) is not of opinion that every Parish, one with

¹ S, '3 mill and $\frac{1}{2}$,' altered to '3600000,' R, '3500000' altered to '3600000.'

² R, '70000000' altered to '72000000,' S, '70000000.'

³ S, Petty inserted 'and hath' after 'doth.'

⁴ G, omits 'Thousand.'

another, hath above Five Hundred; by which reckoning the whole People of *France*¹, are about Thirteen Millions and a half; Now the People of *England*, *Scotland*, and *Ireland*, with the Islands adjoining, by computation from the numbers of Parishes; which commonly have more People in Protestant Churches, than in Popish Countries; as also from the *Hearth-money*, *Pole-money*², and *Excise*, do amount to about Nine Millions and $\frac{1}{2}$ ³.

There are in *New-England*, about 16000⁴ Men mustered in Arms; about 24000⁵ able to bear Arms; and consequently about 150000⁶ in all: And I see no reason why in all this and the other Plantations of *Asia*, *Africa*, and *America*, there should not be half a Million⁷ in all. But this last I leave to every Mans conjecture; and consequently, I suppose, that the King of *England* hath about Ten Millions of Subjects, *ubivis Terrarum Orbis*; and the King of *France* about Thirteen and a $\frac{1}{2}$ as aforesaid.

[76]

Although it be very material to know the number of Subjects belonging to each || Prince, yet when the Question is concerning their *Wealth* and *Strength*; It is also material to examin, how many of them do get more than they spend, and how many less.

The King of *France* hath in effect but 13 Millions of Subjects and the K. of *England* 10 Millions, and the King of *France* hath 27000 Church-men and the King of *En-*

In order whereunto it is to be considered, that in the King of *Englands* Dominions, there are not⁸ twenty Thousand Church-men; But in *France*, as the aforementioned Author of theirs doth aver, (who sets down the particular number of each Religious Order) there are about Two Hundred and Seventy thousand, *viz.* Two Hundred and Fifty thousand

gland 20000, the K. of *England* hath 40000 Sea-men, and the K. of *France* 10000.

¹ *The present State of France*, p. 455 seq., contains a list of the Généralities, with the number of parishes in each of them except Amiens and Nantes. The sum of the parishes accounted for is 24,580.

² G, 'Post-money.'

³ S, R, '9 millions,' altered to '9½ millions' in S.

⁴ S, R, G, '50000,' altered to '16000' in S.

⁵ S, R, G, '80000,' altered to '24000' in S.

⁶ S, R, G, 'halfe a million,' altered to '150000' in S.

⁷ S, R, 'in all the rest of the Plantations there should not be halfe a million more,' altered in S to 'in this and all the other Plantations of Asia, Affrica & America there should not be half a million' ('more' stricken out).

⁸ G omits 'not.'

more than we think are necessary, (that is to say) Two Hundred and Fifty Thousand withdrawn out of the World. Now the said number of adult and able bodied Persons, are equivalent to about double the same number, of the promiscuous Mass of Mankind. And the same Author says, that the same Religious Persons, do spend one with another about 18 *d. per diem*, which is triple even to what a labouring Man requires.

Wherefore the said Two Hundred and Fifty thousand Church-men (living as they do) makes the King of *France's* ||
[17] Thirteen Millions and a half, to be less than Thirteen¹: 'Now if Ten Men can defend themselves as well in Islands, as Thirteen³ can upon the Continent; then the said Ten being not concerned to increase their *Territory* by the Invasion of others, are as effectual as the Thirteen⁴ in point of Strength also⁵; wherefore that there are more Superlucrators in the *English*, than the *French* Dominions, we say as followeth.

The multitude of Clergy's do lessen the K. of *France's* People, the multitude of Sea & Naval Men do increase the K. of *England's* Subjects.

There be in *England, Scotland, Ireland*, and the Kings other Territories above Forty Thousand⁶ Seamen; in *France* not above⁷ a quarter so many; but one Seaman earneth as much as three common Husbandmen; wherefore this difference in Seamen, addeth to the account of the King of *England's*

¹ S, R, 'be really no better than 12 or thereabouts,' S, altered to 'be less than 13.'

² S, R, G, have here the following passage, stricken out but still legible in S: 'In the next place it is to be considered, That the Inhabitants of the Inner Parts of France, remote from the Sea cannot be probably Superlucrators; Now if there be 2 Millions in the King of England's dominions, more then in the King of France's who—[a word rendered illegible by Petty's alteration of it to 'earn,' which R and G have] more then they Spend, or if 10 men in England earne more then 12 men in France, then the Subjects of England, are as effective as to the gaining of wealth and Riches as those of France.' The alteration of one word in this passage implies that Petty intended to let it stand and afterwards decided to strike it out. The passage is in Sloane MS. 2572 also.

³ S, R, '12,' S altered to '13.'

⁴ S, R, '12,' S altered to '13.'

⁵ 'also' refers to the (omitted) argument about gaining wealth.

⁶ S, R, 'in England, Scotland and Ireland about 60 thousand,' in S is inserted 'and y^e Kings other Territories' and '60' is altered to above '40.' G, '60 million.'

⁷ S, R, 'about,' S altered to 'not above.'

Subjects, is an advantage equivalent to Sixty Thousand Husbandmen¹.

There are in *England, Scotland, and Ireland*, and all other the King of *England's* Territories² Six Hundred³ thousand Tun of Shipping, worth about four Millions and a $\frac{1}{2}$ ⁴ of Money; and the annual charge of maintaining the Shipping of *England*, by new Buildings and Reparations, is about $\frac{1}{3}$ ⁵ part of the || same summ; which is the Wages of one Hundred and Fifty [78] thousand⁶ Husbandmen, but is not the Wages of above $\frac{1}{3}$ part of so many *Artisans* as are employed, upon Shipping of all sorts; viz. *Shipwrights, Calkers, Joyners, Carvers, Painters, Block-makers, Rope-makers, Mast-makers, Smiths* of several sorts; *Flag-makers, Compass-makers, Brewers, Bakers*, and all other sort of *Victuallers*; all sorts of Tradesmen relating to *Guns*, and *Gunnery Stores*. Wherefore there being four times more of these *Artisans* in *England, &c.* than in *France*; they further add to the account of the King of *England's* Subjects, the equivalent of Eighty Thousand Husbandmen more.

The *Sea-line* of *England, Scotland, and Ireland*, and the adjacent Islands, is about Three thousand Eight hundred Miles; according to which length, and the whole content of Acres, the said Land would be an Oblong, or Parallelogram Figure of Three thousand Eight hundred Miles long, and about Twenty four Miles broad; and consequently, every part of *England, Scotland, and Ireland*, is one with another, but twelve Miles from the Sea: Whereas *France* containing, but about one Thousand || Miles of *Sea line*, is by the like [79] method or computation, about Sixty Five Miles from the Sea side; and considering the paucity of Ports, in comparison of what are in the King of *England's* Dominions, as good as Seventy Miles distant from a Port: Upon which grounds it is clear, that *England* can be supplied, with all gross and bulky commodities of Foreign growth and Manufacture, at

The K. of *England's* Territories are in effect but 12 Miles from Navigable Water, the King of *France's*

¹ S, R, 'Subjects the equivalent of 90000 husbandmen,' in S 'is an advantage' is substituted for 'the' cancelled, and '90000' is altered to '60000.' G, '90,50000.'

² S, 'and all other y^e King of England's Territories' inserted.

³ G omits 'Hundred.'

⁴ S, R, G, ' $\frac{1}{2}$.'

⁵ 1691 ed., ' $\frac{1}{3}$.'

⁶ G omits 'thousand.'

far cheaper rates than *France* can be, viz. at about 4*s.* per cent. cheaper; the Land carriage for the difference of the distance between *England* and *France* from a *Port*, being so much or near thereabouts¹. Now to what advantage this conveniency amounteth, upon the Importation and Exportation of Bulkey Commodities, cannot be less than the Labour of one Million of People, &c. meaning by bulkey Commodities all sorts of *Timber*, *Plank*, and *Staves* for *Cask*; all *Iron*, *Lead*, *Stones*, *Bricks*, and *Tyles* for building; all *Corn*, *Salt*, and *Drinks*; all *Flesh* and *Fish*, and indeed all other Commodities, wherein the gain and loss of 4*s.* per Cent. is considerable; where note

[80] that the like *Wines* are sold in the inner parts of || *France* for four or Five Pound a Tun, which near the Ports yield 7 *l.* Moreover upon this Principal, the decay of *Timber* in *England* is no very formidable thing, as the Rebuilding of *London*, and of the Ships wasted by the *Dutch War* do clearly manifest; Nor can there be any want of *Corn*, or other necessary Provisions in *England*, unless the Weather hath been universally unseasonable for the growth of the same; which seldom or never happens; for the same causes which make Dearth in one place, do often cause plenty in another; wet Weather being propitious to *High-lands*, which drowneth the *Low*.

It is observed that the poor of *France*, have generally less Wages than in *England*; and yet their Viſtuals are generally dearer there; which being so, there may be more superlucration in *England* than in *France*.

The K. of *England's* Subjects spend near as much as the K. of *France's*.
[81] Lastly, I offer it to the consideration of all those, who have travelled through *England* and *France*; Whether the *Plebeians* of *England* (for they constitute the Bulk of any Nation) do not spend a sixth part more than the *Plebeians* of *France*? And if so, it is necessary that || they must first get it; and consequently that Ten Millions of the King of *England's* Subjects, are equivalent to Twelve of the King of *France*; and upon the whole matter, to the Thirteen Millions, at which the *French Nation* was estimated.

¹ G, 'viz. above four shillings per Annum Rent cheaper the Land carriage; for the difference (between *England* and *France*) of the distance from a port being so much or near thereabouts.'

It will here be objected, that the splendor and magnificencies of the King of *France*, appearing greater than those of *England*, that the Wealth of *France* must be proportionably greater, than that of *England*; but that doth not follow, forasmuch as the apparent greatness of the King, doth depend upon the *Quota pars* of the Peoples Wealth which he levyeth from them; for supposing of the People to be equally Rich, if one of the Sovereigns levy a fifth part¹, and another a fifteenth, the one seems actually thrice as Rich as the other, whereas potentially, they are but equal.

The greater splendor of the King of *France*, no certain argument of the greater Wealth of his People.

Having thus discoursed of the *Territory, People, Superlucration*, and *Defencibleness* of both *Dominions*, and in some measure of their Trade, so far as we had occasion to mention *Ships, Shipping*, and nearness to *Ports*; we come next to enlarge a little further, upon the Trade of each.||

Comparison of the foreign Trade of *England* and *France*.

Some have estimated, that there are not above Three [82] hundred Millions of People in the whole World. Whether that be so or no, is not very material to be known; but I have fair grounds to conjecture, and would be glad to know it more certainly, that there are not above Eighty Millions, with whom the *English* and *Dutch* have Commerce; no *Europeans* that I know of, Trading directly nor indirectly, where they do not; so as the whole *Commercial World*, or *World of Trade*, consisteth of about Eighty Millions of Souls, as aforesaid.

And I further estimate, that the value of all Commodities yearly exchanged amongst them, doth not exceed the value of Forty Five Millions: Now the *Wealth* of every Nation, consisting chiefly, in the share which they have in the Foreign Trade with the whole *Commercial World*, rather than in the Domestick Trade, of ordinary *Meat, Drink*, and *Cloaths*, &c. which bringing in little *Gold, Silver, Jewels*, and other *Universal Wealth*; we are to consider, Whether the *Subjects* of the King of *England*, Head for Head, have not a greater share, than those of *France*. ||

To which purpose it hath been considered, that the [83] Manufactures of *Wool*, yearly exported out of *England*, into

¹ R, 'thereof' inserted.

several parts of the World, *viz.* All sorts of *Cloth, Serges, Stuffs, Cottons, Bays, Sayes, Frize, perpetuanus*¹; as also *Stockings, Caps, Rugs, &c.* Exported out of *England, Scotland, and Ireland*, do amount unto Five Millions *per annum*.

The value of *Lcad, Tynn, and Coals*, to be Five hundred thousand pounds.

The value of all *Cloaths, Houshold-stuff, &c.* carried into *America*, Two hundred thousand pounds.

The value of *Silver, and Gold*, taken from the *Spaniards* Sixty thousand pounds.

²The value of *Sugar, Indico, Tobacco, Cotton, and Cacao*, brought from the Southward parts of *America* Six hundred thousand pounds.

²The value of the *Fish, Pipe-staves, Masts, Bever, &c.* brought from *New-England*, and the Northern parts of *America*, Two Hundred Thousand pounds.

The value of the *Wool, Butter, Hides, Tallow, Beef, [84] Herring, Pilchers, || and Salmon*, exported out of *Ireland*, Eight hundred thousand pounds.

The value of the *Coals, Salt, Linnen, Yarn, Herrings, Pilchers, Salmon, Linnen-Cloth, and Yarn*, brought out of *Scotland, and Ireland*, 500000 *l.*

The value of *Salt-peter, Pepper, Callicoes, Diamonds, Drugs, and Silks*, brought out of the *East-Indies*, above what was spent in *England*; Eight hundred thousand pounds.

The value of the *Slaves*, brought out of *Africa*, to serve in our *American Plantations* Twenty thousand pounds; which with the *Freight of English Shipping*, Trading into Foreign parts, being above a Million and a $\frac{1}{2}$, makes in all Ten Millions one Hundred and Eighty thousand pounds.

Which computation is sufficiently justified by the Customs of the Three Kingdoms, whose intrinsick value are thought to be near a Million *per annum, viz.* Six hundred thousand pounds, payable to the King; 100 thousand Pounds, for the charges of Collecting, &c. Two hundred thousand pounds

¹ S, 'Perpetuanas' inserted.

² G omits these two paragraphs giving the value of the exports from America, still it gives the total value 10,180,000 *l.*

smuckled by the Merchants, and one Hundred thousand pounds gained by the Farmers; || according to common [85] Opinion, and Mens Sayings: And this agrees also with that proportion, or part of the whole Trade of the World, which I have estimated the Subjects of the King of *England* to be possessed of, *viz.* of about Ten of Forty Five Millions.

But the value of the *French* Commodities, brought into *England*, (notwithstanding some currant estimates¹), are not above one Million Two hundred thousand pounds *per annum*²; and the value of all they export into all the World besides, not above Three or Four times as much; which computation also agreeth well enough, with the account we have of the Customs of *France*; so as *France* not exporting above $\frac{1}{2}$ the value of what *England* doth; and for that all the Commodities of *France* (except *Wines, Brandy, Paper*, and the first *patterns* and *fashions* for *Cloaths*, and *Furniture* (of which *France* is the Mint) are imitable by the *English*; and having withal more People than *England*; it follows that the People of *England, &c.* have Head for Head, thrice as much Foreign Trade as the People of *France*; and about || Two parts of [86] Nine of the Trade of the whole *Commercial World*; and about Two parts in Seven of all the Shipping: Notwithstanding all which it is not to be denied, that the King and some great Men of *France*, appear more Rich and Splendid, than those of the like Quality in *England*; all which arises rather from the nature of their Government, than from the Intrinsick and Natural causes of Wealth and Power. ||

¹ S, R, G, 'm. Fortries Estimates,' S altered to 'some currant.' For a possible source of Petty's estimate, see note 1, p. 252.

² Fortrey asserted that a 'particular' delivered to the King of France not long before 1663, upon a design he had to have forbidden the trade between France and England, showed that the yearly value of the English imports from France exceeded the exports to France by 2,600,000*l.* *England's Interest*, in Whitworth's *Tracts*, 1. 21.

[87]

CHAP. V.

That the Impediments of Englands greatness, are but contingent and removable.

The dis-union of the Territories of *England* is an impediment of its greatness. The different Legislatures another impediment. The colonies belonging to *England* a diminution to the Empire.

THE first Impediment of *Englands* greatness is, that the Territories thereunto belonging, are too far asunder, and divided by the Sea into many several *Islands* and Countries; and I may say, into so many Kingdoms, and several Governments, (*viz.*) there be Three distinct Legislative Powers in *England, Scotland, and Ireland*; the which instead of uniting together, do often cross one anothers Interest; putting Bars and Impediments upon one anothers Trades, not only as if they were Foreigners to each other, but sometimes as Enemies.

12. The Islands of *Fersey* and *Gernsey*, and the Isle of *Man*, are under Jurisdictions different from those, either of *England, Scotland, or Ireland*. ||

3. The Government of *New-England* (both *Civil* and *Ecclesiastical*) doth so differ from that of his Majesties other Dominions, that 'tis hard to say what may be the consequence of it.

[88]

And the Government of the other Plantations, doth also differ very much from any of the rest; although there be not naturally substantial reasons from the Situation, Trade, and Condition of the People, why there should be such differences.

From all which it comes to pass, that small divided remote Governments, being seldom able to defend themselves, the Burthen of protecting of them all, must lye upon the chief Kingdom *England*; and so all the smaller Kingdoms and Dominions, instead of being Additions are really Diminutions¹; but the same is remedied by making Two such Grand Councils, as may equally represent the whole Empire, one to be chosen by the King, the other by the People². The Wealth of a

¹ In R this entire paragraph is inserted in the margin by Petty.

² S, 'but the same...by the People' inserted by Petty, not in R.

King is Three-fold, one is the Wealth of his Subjects, the second is the *Quota pars* of his Subjects Wealth, given him for the *publick Defence, Honour, and Ornament* || of the *People*, [89] and to manage such undertaking for the Common Good, as no one or a few private Men, are sufficient for.

The third sort are the *Quota*, of the last mention *Quota pars*, which the King may dispose of, as his own personal inclination, and discretion shall direct him ; without account¹. Now it is most manifest, that the afore-mentioned distances, and differencies, of Kingdoms, and Jurisdictions, are great impediments to all the said several sorts of Wealth, as may be seen in the following particulars. First in case of War with Foreign Nations, *England* commonly beareth the whole burthen, and charge, whereby many in *England* are utterly undone.

Secondly, *England* sometimes Prohibiting the Commodities of *Ireland*, and *Scotland*, as of late it did the *Cattle, Flesh, and Fish*, of *Ireland*²; did not only make *Food*, and consequently *Labour*, dearer in *England*, but also hath forced the People of *Ireland*, to fetch those Commodities from *France, Holland*, and other places, which before was sold them from *England*, to || the great prejudice of both Nations. [90]

Thirdly, It occasions an unnecessary trouble, and charge, in Collecting of Customs, upon Commodities passing between the several Nations.

Fourthly, It is a damage to our *Barbadoes*, and other *American* Trades, that the Goods which might pass thence immediately, to several parts of the World, and to be sold at moderate Rates, must first come into *England*, and there pay Duties, and afterwards (if at all) pass into those Countries, whither they might have gone immediatly.

Fifthly, The Islands of *Jersey* and *Gernsey*, are protected at the charge of *England*, nevertheless the Labour, and Industry, of that People (which is very great) redounds most to the profit of the *French*.

¹ S, 'without account' inserted, not in R.

² See *Polit. Anat.*, p. 160, note 5.

Sixthly, In *New-England*, there are vast numbers of able bodied *Englishmen*, employed chiefly in Husbandry, and in the meanest part of it, (which is breeding of Cattle) whereas *Ireland* would have contained all those persons, and at worst would have afforded them Lands on better terms, than they ||
 [91] have them in *America*, if not some other better Trade withal, than now they can have.

Seventhly, The Inhabitants of the other Plantations, although they do indeed Plant Commodities, which will not grow so well in *England*; yet grasping at more Land, than will suffice to produce the said *Exotics* in a sufficient quantity to serve the whole World, they do therein but distract, and confound, the effect of their own Indeavours.

Eighthly, There is no doubt that the same People, far and wide dispersed, must spend more upon their Government, and Protection, than the same living compactly, and when they have no occasion to depend upon the Wind, Weather, and all the Accidents of the Sea.

The different Understanding of Prerogative, and Privileges of Parliament, Law and Equity, Civil and Ecclesiastical; the Supream Legislature of *Ireland*, &c.

A second Impediment to the greatness of *England*, is the different Understanding of several Material Points, viz. Of the Kings Prerogative, Privileges of Parliament, the obscure differences between Law and Equity; as also between Civil and Ecclesiastical Jurisdicti-||ons; Doubts whether the Kingdom of *England*, hath power over the Kingdom of *Ireland*, besides the wonderful Paradox; that *Englishmen*, Lawfully sent to suppress Rebellions in *Ireland*, should after having effected the same, (be as it were) Disfranchised, and lose that Interest in the Legislative Power, which they had in *England*, and pay Customs as Foreigners for all they spend in *Ireland*, whither they were sent, for the Honour and Benefit of *England*.
 [92]

Want of Natural Union for want of mixture and trans-plantation.

The third Impediment is, That *Ireland* being a Conquered Country, and containing not the tenth part as many *Irish* Natives, as there are *English* in both Kingdoms, That natural and firm Union is not made, between the two Peoples, by Transplantations, and proportionable mixture, so as there may be but a tenth part, of the *Irish* in *Ireland*, and the same proportion in *England*; whereby the necessity of

maintaining an Army in *Ireland*, at the expence of a quarter of all the Rents of that Kingdom may be taken away.

The fourth Impediment is, That Taxes in *England* are not Levied upon the *expence*, but upon the whole *E-||state*; not upon *Lands, Stock, and Labour*, but chiefly upon Land alone; and that not by any equal, and indifferent Standard, but the casual predominancy, of *Parties, and Factions*: and moreover that these Taxes are not Levied with the least trouble, and charge, but let out to Farmers, who also let them from one to another without explicit knowledge of what they do; but so as in conclusion, the poor People pay twice as much as the King receives.

The unequal inconvenient method of taxing.
[93]

The fifth Impediment is the inequality of *Shires, Diocesses, Parishes, Church-Livings*, and other Precincts, as also the Representation of the People in Parliament; all which do hinder the Operations of Authority in the same manner, as a Wheel irregularly made, and excentrically hung; neither moves so easily, nor performs its Work so truly, as if the same were duely framed and poised.

Inequality of Shires, Diocesses, Parishes, Members of Parliament, &c.

Sixthly, Whether it be an Impediment, that the power of making War, and raising Mony be not in the same Hand, much may be said; but I leave it to those, who may more pro-||perly meddle with Fundamental Laws.

[94]

None of these Impediments are Natural, but did arise as the irregularity of Buildings do, by being built, part at one time, and part at another; and by the changing of the state of things, from what they were at the respective times, when the Practices we complain of, were first admitted, and perhaps, are but the warpings of time, from the rectitude of the first Institution.

As these Impediments are contingent, so they are also removeable; for may not the Land of superfluous Territories be sold, and the People with their moveables brought away? May not the *English* in the *America* Plantations (who Plant *Tobacco, Sugar, &c.*) compute what Land will serve their turn, and then contract their Habitations to that proportion, both for quantity and quality? as for the People of *New-England*, I can but wish they were Transplanted into *Old England*, or

Ireland (according to Proposals of their own¹, made within this twenty years) although they were allowed more liberty of Conscience, than they allow one another. ||

- [95] May not the three Kingdoms be United into one, and equally represented in Parliament? Might not the several Species of the Kings Subjects, be equally mixt in their Habitations; Might not the Parishes, and other Precincts be better equalized; Might not Jurisdictions, and pretences of Power, be determined and ascertained? Might not the *Taxes* be equally applotted, and directly applied to their ultimate use? Might not Dissenters in Religion be indulged, they paying² a competent Force to keep the Publick Peace? I humbly venture to say, all these things may be done, if it be so thought fit by the Sovereign Power, because the like hath often been done already, at several Places and Times. ||

CHAP. VI.

[96]

That the Power and Wealth of England hath increased this last forty years.

Many Territories have been added to *England* within about forty years, and many improvements made.

IT is not much to be doubted, but that the Territories under the Kings Dominions have increased; Forasmuch as *New-England, Virginia, Barbadoes, and Jamaica, Tangier, and Bumbay*, have since that time, been either added to His Majesties Territories, or improved from a *Desart condition*, to abound with People, Buildings, Shipping, and the Production of many useful Commodities. And as for the Land of *England, Scotland, and Ireland*, as it is not less in quantity,

¹ The proposal seems to have originated with Cromwell, probably in 1650. Certain individuals replied to him under date 31 October, 1650, accepting the proffered transplantation provided their conditions were met. Ellis, *Original Letters*, 2d series, vol. III. p. 360—364. But the following year the General Court of Massachusetts made official answer thankfully declining the proposition. Hutchinson, *Hist. of Mass.*, 2d ed., I. 450—452, 175—176. See also Barry, *Hist. of Mass. in the Colonial Period*, I 343.

² Errata, 'paying for.'

than it was forty years since ; so it is manifest that by reason of the Dreyning of *Fens*, watering of dry Grounds, improving of *Forrests*, and *Commons*, making of *Heathy* and *Barren Grounds*, to bear *Saint-foyne*, and *Clover grass* ; meliorating, and multiplying several sorts of Fruits, || and Garden-Stuffe, [97] making some Rivers Navigable, &c. I say it is manifest, that the Land in its present Condition, is able to bear more Provision, and Commodities, than it was forty years ago.

Secondly, Although the People in *England*, *Scotland*, and *Ireland*, which have extraordinarily perished by the Plague, and Sword, within this last forty years, do amount to about three hundred thousand, above what have dyed in the ordinary way ; yet the ordinary increase by Generation of ten Millions, which doubles in two hundred years, as hath been shewn by the Observators¹ upon the Bills of Mortality², may in forty years (which is a fifth part of the same time) have increased³ $\frac{1}{5}$ part of the whole number, or two Millions. Where note by the way, that the accession of *Negroes* to the *American* Plantations (being all Men of great Labour and little Expence) is not inconsiderable ; besides it is hoped that *New-England*, where few or no Women are Barren, and most have many Children, and where People live long, and healthfully, hath produced an increase || of as many People, as were [98] destroyed in the late Tumults in *Ireland*.

As for *Housing*, the Streets of *London* it self speaks it, I conceive it is double in value in that City, to what it was forty years since ; and for *Housing* in the Country, they have increased, at '*Newcastle*, *Yarmouth*, *Norwich*, *Exeter*, *Portsmouth*, *Cowes*, *Dublin*, *Kingsaile*, *Londonderry*, and *Coleraine* in *Ireland*, far beyond the proportion of what I can learn have been dilapidated in other places. For in *Ireland* where the ruin was greatest, the *Housing* (taking all together) is now more valuable than forty years ago, nor is this to be

The
Housing of
London
doubled
in value.

¹ S, 'Observer,' R, 'observers,' altered to 'Observer.' The variation is significant in the dispute concerning the authorship of the *Observations*. See Introduction. This is the last of Petty's alterations in S.

² The assertion is based, apparently, on chapter VII. of Graunt.

³ R. 'neer' inserted by Petty.

⁴ R, 'Bristol' inserted.

doubted, since *Housing* is now more splendid, than in those days, and the number of Dwellers is increased, by near $\frac{1}{2}$ part; as in the last Paragraph is set forth.

The
Shipping
very much
increased
with the
Reasons
thereof.

As for Shipping, his Majesties Navy is now triple, or quadruple, to what it was forty years since, and before the *Sovereign* was Built¹; the Shipping Trading² to *Newcastle*, which are now about eighty thousand Tuns, could not be then above a quarter of that quantity³. First, Because the [99] City of *London*, || is doubled. 2. Because the use of Coals is also at least doubled, because they were heretofore seldom used in Chambers, as now they are, nor were there so many Bricks burned with them as of late, nor did the Country on both sides the *Thames*, make use of them as now. Besides there are employed in the *Guinny* and *American Trade*, above forty thousand Tun of Shipping *per annum*; which Trade in those days was inconsiderable. The quantity in Wines Imported was not near so much as now; and to be short, the Customs upon Imported, and Exported Commodities, did not then yield a third part of the present value: which shews that not only *Shipping*, but *Trade* it self hath increased, somewhat near that proportion.

Interest
of Mony
abated
near half.

As to Mony, the Interest thereof was within this fifty years, at 10 *l. per Cent.* forty years ago, at 8 *l.* and now at 6 *l.* no thanks to any Laws which have been made to that purpose, forasmuch as those who can give good security, may now have it at less: But the natural fall of Interest, is the effect of the increase of Mony. ||

[100] Moreover if *rented Lands*, and *Houses*, have increased; and if *Trade* hath increased also, it is certain that mony which payeth those *Rents*, and driveth on *Trade*, must have increased also.

¹ In 1636—37. See p. 236. ² S, 'trading shipping,' R, 'shipping trade.'

³ In 1615 the Newcastle coal trade employed some two hundred sail of carvels that served London, besides some two hundred more that served the sea-coast towns throughout England. *The Trades Increase* [with address to the reader signed 'I. R.'] London, printed by Nicholas Okes, 1615, 4°. p. 10. In 1649 the coal trade had so increased "that there was more Coales vented in one yeare. than in seven yeares, forty yeares by-past." [W. Gray.] *Chorographia, or a survey of Newcastle upon Tyne.* London, printed for J. B. 1649, 4°. p. 26.

Lastly, I leave it to the consideration of all Observers, whether the number, and splendor of *Coaches, Equipage, and Houshold Furniture*, hath not increased, since that time; to say nothing of the Postage of Letters, which have increased from one to twenty, which argues the increase of Business, and Negotiation. I might add that his Majesties Revenue is near tripled, and therefore the means to pay, and bear the same, have increased also. ||

Money
and the
Publick
Revenue
increased.

CHAP. VII.

[101]

That one tenth part of the whole Expence, of the King of England's Subjects, is sufficient to maintain ten thousand¹ Foot, forty thousand Horse, and forty thousand Men at Sea; and defray all other Charges of the Government both Ordinary and Extraordinary, if the same were regularly Taxed, and Raised.

TO clear this Point, we are to find out, what is the middle *Expence of each Head* in the *Kings Dominions*, between the highest and the lowest; to which I say it is not probably less than the expence of a Labourer, who earneth about 8 *d.* a day; for the Wages of such a Man is 4 *s.* *per* week without Viſtuals, or 2 *s.* with it; wherefore the value of his Viſtuals is 2 *s.* *per* week, or 5 *l.* 4 *s.* *per annum*: Now the value of Clothes cannot be less than the Wages given to the poorest Maid-||Servant² in the Country, which is 30 *s.* *per annum*, nor can the charge of all other Necessaries, be less than 6 *s.* *per annum* more; wherefore the whole charge is 7 *l.*

An
estimate
of the me-
dium of
Expence
of each
Head in
England.

[102]

It is not likely that this Discourse will fall into the hands of any that live at 7 *l.* *per annum*, and therefore such will wonder at this supposition: But if they consider how much the number of the Poor, and their Children, is greater than that of the Rich; although the personal expence of some

¹ S, '100000.'

² S, 'man Servant,' R, 'maid servant.'

Rich Men, should be twenty times more than that of a Labourer; yet the expence of the Labourer above mentioned, may well enough stand for the Standard of the Expence, of the whole mass of Mankind.

Now if the expence of each Man, one with another, be 7 *l. per annum*, and if the number of the Kings Subjects, be ten Millions, then the tenth part of the whole expence, will be seven Millions: but about five Millions, or a very little more, will amount to one years pay for one hundred thousand Foot, forty thousand Horse, and forty thousand Men at Sea, [103] Winter and Summer; which can rarely be necessary. || And the ordinary charge of the Government, in times of deep and serene Peace, was not 600000 *l. per annum*.

Where a People thrive, there the income is greater than the expence, and consequently the tenth part of the expence is not a tenth part of the income; now for Men to pay a tenth of their expence, in a time of the greatest exegency (for such it must be when so great Forces are requisite) can be no hardship, much less a deplorable condition, for to bear the tenth part, a Man needs spend but a twentieth part less, and labour a twentieth part more, or half an hour *per diem* extraordinary, both which within Common Experience are very tolerable; there being very few in *England*, who do not eat by a twentieth part more than does them good; and what misery were it, in stead of wearing Cloth of 20 *s. per Yard*, to be contented with that of 19 *s.* few Men having skill enough to discern the difference.

Memorandum, That all this while I suppose, that all of these ten Millions of People, are obedient to their Sovereign, [104] and within the reach of his power; || for as things are otherwise, so the Calculation must be varied.

CHAP. VIII.

That there are spare Hands enough among the King of England's Subjects, to earn two Millions per annum more than they now do; and that there are also Employments, ready, proper, and sufficient, for that purpose.

TO prove this Point we must enquire, how much all the People could earn, if they were disposed, or necessitated to labour, and had Work whereupon to employ themselves; and compare that summ, with that of the Total expence above mentioned; deducting the Rents, and Profits of their Land, and Stock, which properly speaking, saveth so much Labour. Now the proceed of the said Lands, and Stock in the Countries, is about three parts of seven, of the whole expence; so as where the expence is seventy Millions, || the [105] Rent of the Land, and the Profit of all the Personal Estate, Interest of mony, &c. must be about thirty Millions; and consequently, the value of the Labour forty Millions, that is 4*l. per Head*.

But it is to be noted, That about a quarter of the Mass¹ of Mankind, are children, Males, and Females, under seven years old, from whom little Labour is to be expected. It is also to be noted, That about another tenth part of the whole People, are such as by reason of their great *Estates, Titles, Dignities, Offices, and Professions*, are exempt from that kind of Labour we now speak of; their business being, or ought to be, to *Govern, Regulate, and Direct*, the *Labours and Actions* of others. So that of ten Millions, there may be about six Millions and an half, which (if need require) might actually Labour: And of these some might earn 3*s. per week*, some 5*s.* and some 7*s.* That is all of them might earn 5*s. per week* at a *Medium* one with another; or at least 10*l. per annum*, (allowing for sickness, and other accidents;) whereby

¹ S, 'the whole stock,' R, 'y^e mass.'

[106] the whole might earn sixty five Millions *per annum*, that || is twenty five more than the expence.

The Author of the State of *England*, says that the *Children of Norwich*, between six and sixteen years old, do earn 1200 *l. per annum*, more than they spend¹. Now forasmuch as the People of *Norwich*, are a three hundredth part of all the People of *England*, as appears by the Accompts of the Hearth mony; and about a five hundredth part, of all the Kings Subjects throughout the World; it follows that all his Majesties Subjects, between six and sixteen years old, might earn five Millions *per annum* more than they spend.

Again, forasmuch as the number of People, above sixteen years old, are double the number, of those between six and sixteen; and that each of the Men can earn double to each of the Children; it is plain that if the Men and Children every where did do as they do in *Norwich*, they might earn twenty five Millions *per ann.* more than they spend: which estimate grounded upon matter of Fact and Experience, agrees with the former. ||

[107] Although as hath been proved, the People of *England* do thrive, and that it is possible they might *Superlucrate* twenty five Millions *per annum*; yet it is manifest that they do not, nor twenty three, which is less by the two Millions herein meant; for if they did *Superlucrate* twenty three Millions, then in about five or six years time, the whole Stock, and Personal Estate of the Nation would be doubled, which I wish were true, but find no manner of reason to believe; wherefore if they can *Superlucrate* twenty five, but do not actually *Superlucrate* twenty three, nor twenty, nor ten, nor perhaps five, I have then proved what was propounded, *viz.* That there are spare Hands among the Kings Subjects, to earn two Millions more than they do.

But to speak a little more particularly concerning this matter: It is to be noted that since the Fire of *London*,

¹ Chamberlayne, *State of England*, Second part, 1671, pp. 150—151. "In the City of Norwich it hath of late years been computed and found, that yearly children from six to ten [not 16] years of age have gained twelve thousand pounds more than what they spend, and that chiefly by knitting fine Jersey stockings."

there was earned in four years by Tradesmen, (relating to Building only) the summ of four Millions; *viz.* one Million *per annum*, without lessening any other sort of Work, Labour, or Manufacture, which was usually done in || any other four [108] years before the said occasion. But if the Tradesmen relating to Building only, and such of them only as wrought in and about *London*, could do one Million worth of Work extraordinary; I think that from thence, and from what hath been said before, all the rest of the spare Hands, might very well double the same, which is as much as was propounded.

Now if there were spare Hands to *Superlucrate* Millions of Millions, they signifie nothing unless there were Employment for them; and may as well follow their Pleasures, and Speculations, as Labour to no purpose; therefore the more material Point is, to prove that there is two Millions worth of Work to be done, which at present the Kings Subjects do neglect.

For the proof of this there needs little more to be done, than to compute 1. How much mony is paid, by the King of *England's* Subjects, to Foreigners for Freights of Shipping. 2. How much the *Hollanders* gain by their Fishing Trade, practised upon our Seas. 3. What the value is of all the Commodities, Imported into, and spent in *England*; which || might by diligence be produced, and Manufactured here. To [109] make short of this matter, upon perusal of the most Authentick Accompts, relating to these several particulars, I affirm that the same amounteth to above five Millions, whereas I propounded but two Millions.

For a further proof whereof Mr. *Samuel Fortry*¹ in his ingenious Discourse of Trade, exhibits the particulars, wherein it appears, that the Goods Imported out of *France* only, amount yearly to two Millions six hundred thousand pounds. And I affirm, That the *Wine, Paper, Corke, Rosen, Capers*, and a few other Commodities, which *England* cannot produce, do not amount to one fifth part of the said summ. From whence it follows, that (if Mr. *Fortry* hath not erred) the two Millions here mentioned, may arise from *France* alone; and consequently five or six Millions, from all the three Heads last above specified. ||

¹ See p. 297, note 2.

CHAP. IX.

[110] *That there is Money sufficient to drive the Trade of the Nation.*

SINCE his Majesties happy *Restauration*, it was thought fit to call in, and new Coin the mony, which was made in the times of *Usurpation*. Now it was observed by the general consent of Cashiers, that the said mony (being by frequent Revolutions well mixed with old) was about a seventh part thereof: and that the said mony being called in, was about 800000 *l.* and consequently the whole five Millions six hundred thousand pound¹. Whereby it is probable that (some allowance being given for hoarded mony) the whole Cash of *England* was then about six Millions, which I conceive is sufficient to drive the Trade of *England*, not doubting but the rest of his Majesties Dominions have the like means to do the same respectively. ||

[111] If there be six Millions of Souls in *England*, and that each spendeth 7*l.* *per annum*, then the whole expence is forty two Millions, or about eight hundred thousand pound *per week*²; and consequently, if every Man did pay his expence weekly, and that the Money could circulate within the compass of a Week, then less than one Million would answer the ends proposed. But forasmuch as the Rents of the Lands in *England* (which are paid half yearly) are eight Millions *per annum*, there must be four Millions to pay them. And forasmuch as the Rent of the Housing of *England*, paid quarterly, are worth about four Millions *per ann.* there needs but one Million to pay the said Rents; wherefore six Millions being enough to make good the three sorts of Circulations

¹ R, 'or 5 millions & a halfe' inserted.

² See *Treatise of Taxes*, p. 56, where the expense of the people of England is estimated at 50 millions, and compare *A moderate Computation of the Expences in Provisions, spent in the...Places within the Bills...observed by a scrutinous Enquiry into most of the Particulars*. By John Seller, sen. London, sold by Richard Baldwin, 1691. Sellers makes the average expenditure £17'1749 per capita.

above mentioned, I conceive what was proposed, is competently proved, at least until something better be held forth to the contrary. ||

CHAP. X.

[112]

That the King of England's Subjects, have Stock competent and convenient, to drive the Trade of the whole Commercial World.

NOW for the further encouragement of Trade, as we have shewn that there is mony enough in *England* to manage the Affairs thereof; so we shall now offer to consideration, Whether there be not a competent, and convenient Stock to drive the Trade of the whole *Commercial World*. To which purpose it is to be remembred, That all the Commodities, yearly Exported out of every part of the last mentioned World, may be bought for forty five Millions; and that the Shipping employed in the same World, are not worth above fifteen Millions more, and consequently, that sixty Millions at most, would drive the whole Trade above mentioned, without any trust at all. || But forasmuch as the growers of Commo- [113] dities, do commonly trust them to such Merchants or Factors, as are worth but such a part of the full value of their Commodities, as may possibly be lost upon the sale of them, whereas gain is rather to be expected; it follows that less than a Stock of sixty Millions, nay less than half of the same summ, is sufficient to drive the Trade above-mentioned: It being well known that any Tradesman of good Reputation worth 500*l.* will be trusted with above 1000*l.* worth of Commodities: Wherefore less than thirty Millions, will suffice for the said purpose; of which summ, the *Coin*, *Shipping*, and *Stock*, already in Trade, do at least make one half.

And it hath been shewn, how by the Policy of a *Bank*, any summ of mony may be made equivalent in Trade, unto

near double of the same; by all which it seems, that even at present much is not wanting, to perform what is propounded. But suppose twenty Millions or more were wanting, it is not improbable, that since the generality of Gentlemen, and some [114] Noblemen, do put their younger Sons to Mer-||chandize, they will see it reasonable, as they increase in the number of Merchants, so to increase the magnitude of Trade, and consequently to increase Stock; which may effectually be done, by inbanking twenty Millions worth of Land, not being above a sixth or seventh of the whole Territory of *England*; (that is to say) by making a *Fond* of such value, to be security for all *Commodities*, bought and sold upon the accompt of that *Universal Trade* here mentioned.

And thus it having appeared, that *England* having in it, as much Land, like *Holland* and *Zealand*, as the said two Provinces do themselves contain, with abundance of other Land, not inconvenient for Trade; and that there are *spare Hands* enough, to earn many Millions of mony, more than they now do, and that there is also Employment to earn several Millions, (even from the Consumption of *England* it self) it follows from thence, and from what hath been said in the last Paragraph, about enlarging of Stock, both of Mony, and Land; that it is not impossible, nay a very feasible matter, [115] for the King of || *England's* Subjects, to gain the *Universal Trade* of the whole *Commercial World*.

Nor is it unseasonable to intimate this matter, forasmuch as the younger Brothers, of the good Families of *England*, cannot otherwise be provided for, so as to live according to their Birth and Breeding: For if the Lands of *England* are worth eight Millions *per annum*, then there be at a *medium* about ten thousand Families, of about 800 *l. per annum*; in each of which, one with another, we may suppose there is a younger Brother, whom less than two or 300 *l. per annum*¹ will not maintain suitable to his Relations: Now I say that neither the Offices at Court, nor Commands in our ordinary Army and Navy, nor Church Preferments; nor the usual Gains by the Profession of the Law, and Physick; nor the

¹ R, 'p an' inserted.

Employments under Noblemen, and Prelates: will, all of them put together, furnish livelyhoods of above 300 *l. per annum*, to three thousand of the said ten thousand younger Brothers: whereof it remains that Trade alone must supply the rest. But if the said seven thousand Gentlemen, be applyed to Trade, without increasing of || Trade; or if we ^[116] hope to increase Trade, without increasing of Stock, which for ought appears is only to be done, by imbanking a due proportion of Lands, and Mony; we must necessarily be disappointed. Where note, that selling of Lands to Foreigners for Gold and Silver, would enlarge the Stock of the Kingdom: Whereas doing the same between one another, doth effect nothing. For he that turneth all his Land into Mony, disposes himself for Trade; and he that parteth with his Mony for Land, doth the contrary; But to sell Land to Foreigners, increaseth both Mony and People, and consequently Trade. Wherefore it is to be thought, that when the Laws denying Strangers to Purchase, and not permitting them to Trade, without paying extraordinary Duties, were made; that then, the publick State of things, and Interest of the Nation, were far different from what they now are.

Having handled these Ten Principal *Conclusions*, I might go on with others, *ad infinitum*; But what hath been already said, I look upon as sufficient, for to shew what I mean by *Political* || *Arithmetick*; and to shew the uses of knowing ^[117] the true State of the *People, Land, Stock, Trade, &c.* 2. That the Kings Subjects are not in so bad a condition, as discontented Men would make them. 3. To shew the great effect of *Unity, industry, and obedience*, in order to the Common Safety, and each Man's particular Happiness¹. ||

F I N I S.

¹ R, Petty adds the incomplete sentence 'other then w^{ch} I have no other,' and then cancels the last word. Cf. the end of the Author's Preface to the *Political Anatomy*, p. 130.