

# REPORT

FROM THE

## COMMITTEE

APPOINTED TO CONSIDER OF

The Methods practised in making FLOUR from  
WHEAT;

*C. C.*

The PRICES thereof;

And how far it may be expedient to put the same  
again under the Regulations of an ASSIZE.

In this REPORT are set forth several EXPERIMENTS and COMPUTATIONS, relative to what Quantity of FLOUR for the different Sorts of BREAD in Use, is equivalent to a Quarter of WHEAT, and the Manner of Dressing the FLOUR, and Making the different Sorts of BREAD for SALE.

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M DCC LXXIV.

Houses of the Oireachtas



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# R E P O R T, &c.

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The Committee appointed to consider of the Methods practised in making Flour from Wheat, the Prices thereof, and how far it may be expedient to put the same again under the Regulations of an Assize; and to report the same, with their Opinions thereupon, to the House; in Obedience to the Order of the House, met on *Friday* the Third of this Month.

**T**HEY first examined the Statute, intituled, "*Affisa Panis et Cervisæ*," made in the Fifty-first Year of the Reign of *Henry* the Third; also the Ordinance for Bakers, made in the Times of *Henry* the Third, *Edward* the First, or *Edward* the Second; they did also examine the Allowances heretofore made to the Bakers, according to the Price of the Wheat, by the Assize of the Fifty-first of *Henry* the Third; by that in the Time of *Edward* the First; by that made in the Twelfth Year of the Reign of *Henry* the Seventh; by that made in the Thirty-fourth Year of the Reign of *Queen Elizabeth*; and lastly, by the Book of Assize, published by Order of Council in the Year 1638, in which, for the first Time, the Assize was calculated by the Pound Avoirdupoise and its Parts, as well as by the Pound Troy.

And Your Committee do find, That the Charge of grinding and dressing the Wheat into Meal and Flour was always included within the Assize, while the Assize of Bread was set according to the Price of the Wheat.



They next examined the Statute, intituled, “ An Act to regulate the Price and Assize of Bread,” made in the Eighth Year of the Reign of Queen *Anne*; and they find therein, that the Magistrates and others authorized to set an Assize on Bread, were directed by Law, for the first Time, in so setting the Assize, to have respect to the Price of the Meal and Flour, as well as to that of the Grain. Although the Assize of the Bread, as set in the Assize Table, is calculated by a Price of the Bushel of Wheat; yet that supposed Price of the Bushel of Wheat is a compounded Price, as collected by having respect to the Meal or Flour, as well as to the Grain, together with the Baker’s Allowance added thereto. From the Time that the Assize of the Bread was set with respect to the Flour, the Miller and Mealman were no longer included within the Charges whereon the Assize of Bread was calculated; they were from thenceforth at Liberty to make what Sorts of Flour they should please, and to affix thereunto what Price they thought proper: Whereas, while the Assize had respect to the Grain only, as from Time immemorial it always had, the Charges of grinding and dressing were included in the Calculation of the several Operations of the making of Bread from the Grain; and those Articles do accordingly stand in the said Calculations.

They find, from the Journals of the House, That at the Time of making this Alteration, there were Petitions presented to the House, by the Bakers of *London*, by those of most of the great Towns and Cities, and almost from every Part of *England*; setting forth, That the setting the Assize in this Manner must be either impracticable, or a great Oppression to the Baker.—Several Inconveniencies did arise in Practice; and Your Committee find, That on the Second Day of *March*, in the Year 1735, the Master and Wardens of the Company of Bakers in the City of *London*, in Behalf of themselves and the rest of  
the



the Bakers within the Bills of Mortality, did present a Petition to the House, in which they set forth and allege, That the Prices of the Wheat, from whence the Magistrate did set the Assize, and the Prices of the Flour which the Baker did use for the making the several Sorts of Bread by the Law directed, did not agree; and that the Allowance which the Assize made them, was not proportioned to their Charges, and the Cost of the Materials whereof their Bread was made.

And Your Committee find, on the 12th Day of the said Month, That the Committee who were appointed to consider of the said Petition did report, " That the Petitioners had fully proved the Allegations of their Petition; and that the most certain and most equal Method of ascertaining the Price and Assize of Bread within the Bills of Mortality, with Justice to the Public, as well as to the Bakers, will be, to fix the same from the Price of such Flour whereof each Sort of Bread is made, making a reasonable Allowance to the Bakers for every Bushel of Flour, proportionable to the ancient and customary Allowance for every Bushel of Wheat." This Resolution was agreed to by the House, and a Bill was ordered to be brought in " for the better regulating and ascertaining the Price and Assize of Bread in the City of *London*, and Parts adjacent." A Bill was according to the Order brought in, but we do not find that the House did proceed therein.

Here Your Committee beg Leave to observe, That although the Remedy, proposed by the Resolution of that Committee, might have relieved the Case of the Baker; yet, while the Miller or Mealman was thus left at Liberty to make what Divisions and Assortments of Flour he should please, and to affix thereunto what Price should to him, from Reasons of his own, seem meet; the Poor were still liable to be ag-  
grieved



grieved by a high Price or Assize of Bread, although the Wheat was cheap; because, if the Miller or the Mealman should affix a high Price upon his Flour, disproportionate to the Price of Wheat, and the Magistrate should, in the setting the Assize, be confined to look to the Price of the Flour only, as the Resolution proposed, the Bread might be rated at a high Price, although the Wheat did not require such.

Your Committee next inquired what the Law, intituled, "An Act for the due making of Bread, and to regulate the Price and Assize thereof, and to punish Persons who shall adulterate Meal Flour or Bread," passed in the Thirty-first Year of the Reign of *George* the Second, did intend. This Law, they find, supposes, That the Whole Flour of the Wheat is so divided into Two Sorts, as that a Wheaten Bread, and an Household Bread only, should be made for common Sale: That the Wheaten Loaves were always to be Three Fourths of the Weight of the Household Loaves of the same Price; and that the Household prized Loaves were always to be Three Fourths of the Price of the Wheaten Loaves of the same Size. This Wheaten Bread was supposed to be somewhat finer than the Wheaten intended by the Eighth of *Queen Anne*, but not so fine as the White Bread intended by that Act.—The Household, also, was thus meant to have been of a better and more nutritious Quality than that of *Queen Anne*; and the Bread was prized and assized accordingly as such. The Price was thus fixed on the Public; but the Act, as to the making the Bread intended, was never carried into Execution. We are not able to discover that the Flour was ever divided by the Miller or Mealman, as the Law supposed when it fixed the Assize; or that any such was ever in the Market, bearing such Proportions, either in its Quality or Price: On the  
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contrary, the Mealman appears to have made it by what Divisions and of what Assortments he pleased, and to have affixed thereunto, without Respect had to any just Rule or Proportion, any Prices he pleased; so that, while the Baker, (especially in *London* and the Parts adjacent) was obliged to make his Bread of such Sorts of Flour as he could purchase, or did afterwards himself mix the several Sorts as he found convenient, the Magistrate, however he might set the Assize, could not possibly know what that Bread was which he so assized or prized.

Your Committee were confirmed in their Opinion on this Head, by inspecting and examining the Registers of the Prices of Wheat and Flour, as kept in the Books of the Meal Weighers of the City of *London*, from *September 1759* (when the Act for regulating the Assize and Price of Bread first came into Operation) to *October 1773*. They directed their Enquiry in order to ascertain the Fact, Whether there were, according to the Intent and Meaning of the said Act, in the Market, for common Use and Consumption, Two Sorts of Flour, suited to the making the Two Sorts of Bread only, as intended by the said Act should be made for Sale; and whether the Prices of such Flour (if any such there were) bore any fixed Proportion, either to the Wheat, the Bread, or to each other, so as to suit the Prices and Assize fixed by that Act.

Your Committee examined *Joseph How*, who has been a Meal Weigher from before that Period; and also *William Marshall*, who has been a Meal Weigher for the last Seven Years, to the Mode of their collecting the Prices of the Wheat, and of the Flour; to the Truth of these Registers; and also to the Sorts of Flour which are usually in the Market; and do find, That as to the Price of the Wheat, they collect it from the Sellers Market Books, and check it by those of the Buyers; and  
return



return the Prices, with the Quantities sold, to the chief Magistrate; which Prices are those registered in the Books of their Office: That as to the Flour, there were in the Year 1759, and have been ever since, Three Sorts always in the Market; viz. Firsts, Seconds, and Thirds; but that the Meal Weighers never take Account of the Price or Sale of any other than the First Sort, which is improperly termed Household, being said to be intended for making the Wheaten Bread; and that this is generally returned and registered at One Price, notwithstanding the Price of Wheat varies very considerably; and this finest Sort is what always has been and is chiefly sold in the Market for the general Consumption.

Your Committee next examined Mr. *Pardo Allet* (a Mealman) and it appeared, That of late they usually make up their Wheat to a Standard of 63 Pounds to a Bushel, by adding such a Quantity over and above the Measure of the Bushel, as the Wheat in Measure is beneath that Weight; yet we find, that the Price of the Flour *per* Sack, has varied from the Price of the Wheat *per* Quarter, through all Proportions, from One to Eleven Shillings Difference.

Your Committee wishing to know whence this Variation did arise, and whether the Mealman did of late use a different Dressing or Assortment—They did not receive any Information on that Head; they were however afterwards informed by the Master of the Bakers Company, who is a Miller, that they now dress the Households through a Twenty Shilling Cloth, and the Residue through a Sixteen Shilling Cloth for Seconds; which Your Committee apprehend to be a coarser Dressing than should be for the Wheaten Bread intended by the Act, especially as it appears from the Report of the Commissioners



missioners of the Victualling Office, dated *June* 10, 1774, hereunto annexed (B), and herein after more particularly referred to, That a Dressing through a One and Twenty Shilling Cloth, as therein described, is the proper Dressing for the Whole Flour, in order to produce the Flour duly suited to the Wheaten Bread. This Miller, the Master of the Bakers Company, further informed Your Committee, That he had, since the passing of the Bread Act of last Session, dressed for the Bakers, as usual, Households, Seconds, and Thirds.

Mr. *Pardo Allet*, also of the Bakers Company, who is a Mealman, informed Your Committee, That he used the Wire Machine now applied to the Dressing of Flour, and that he dressed the Meal through the different Numbers, from N<sup>o</sup> 58 to N<sup>o</sup> 62 for Households, and the Residue for Middlings through the different Numbers, from N<sup>o</sup> 46 to N<sup>o</sup> 56. In order to explain the Nature of this Evidence, we beg Leave to refer to Three Letters inserted in the Appendix (E. 1, 2, 3,) from Mr. *Miln* of *Manchester*, the Patentee Maker of Wire Machines for dressing Flour, to Mr. *Pelham*, Secretary of the Victualling Office, dated *January* the First, *February* the Second, and *May* the Fourth, 1774: Also to the Manufacturers Memorandum of several Bolting Cloths which are most commonly used, described by their Denominations, and by the Number of Threads which are in the Warp, and in the Shoot or Woof, in an Inch Square; which is also inserted in the Appendix (F). Reference had to those, will inform the House what the Sorts of Dressing are which the Evidence above describes, and will confirm (whatever Names the several Sorts of Flour at different Times be called by) the Evidence which we received from the Meal Weighers, That the same Assortments of the Flour, viz. Households, Seconds, and Thirds, are now in the Market as have been heretofore, but that the  
Sort



Sort which is principally and in the main Quantity sold there, is the Households; which the Mode of Dressing above described provides for accordingly in the greatest Quantity.

Your Committee, in order to give the more certain Information to the House, as to the Variations of the Difference between the Prices of the Flour *per* Sack of 280 Pounds, and the Prices of the Wheat *per* Quarter, have extracted from the Meal Weighers' Books, and stated the relative Proportions of these Prices between the Flour and the Wheat of the same Time, as they were found to stand in different Periods, from *September 1759* to *October 1773*; and they have annexed the same to this Report (D).

The Difference of Price between the Price of the Sack of Flour and the Price of the Quarter of Wheat, as they stood at the same Time, appears to have varied from One Shilling to Eleven Shillings. When it appears that the Miller and Mealman's Charges, for grinding and dressing, have been always at or nearly the same Rate *per* Quarter; and that the Household Flour has always been supposed to be of (or nearly so) the same Fineness, being intended for the same Sort of Bread; Your Committee are unable to account for these Deviations of Proportion by any just Rule of Charge and Profit.

Upon the Whole of this Point, Your Committee are not able to find that any such Division was ever made of the Whole Flour into Two Sorts only, so as specially suited to make the Two Sorts of Bread only, namely, Wheaten and Household, as the Act of the Thirty-first of *George* the Second requires: nor that there were in the Market any Sorts, which, either in Proportion of Quality, Quantity, or Price, answered this intended Supply of such Two Sorts of Bread; nor that any Quantity of the Whole Flour of the Wheat, such as is directed by the "Act for  
" the better regulating the Assize and the due mak-  
" ing



"ing of Bread," the Standard Wheaten Bread should be made of, has been in the Market; nor can they find that Mr. *Jonathan Rogers*, Master of the Bakers Company, who is a Miller, and does not follow the Baking Trade, (although at the Commencement of the said Act the Company did, as he informed Your Committee, by Advertisement, recommend it to the Trade to comply with the Act, if they could get the Flour) did ever dress any Standard Wheaten Flour, except Two Sacks for a Trial, for Mr. *Wyat*, One of the Wardens of the Company: Nor that Mr. *Pardo Allet*, also a considerable Member of the said Bakers Company, who is a Mealman, did ever dress more than Three Sacks, which he informed us he dressed for the Baker who took his Shop. On the contrary, Your Committee find, That the Mealmen go on to dress and prize their Flour, without any Respect had to the Bread directed to be made either by the Act of the Thirty-first of *George* the Second, or to that of the Thirteenth of His present Majesty; by which Modes much the greatest Portion of the Whole Flour is constantly thrown into that Assortment which is called Households, the Rest and Residue being Middlings only, such as is chiefly used for Biscuit Stuff, as Mr. *Pardo Allet* informed Your Committee; and which Households are prized at a Rate which Half only of the Whole Flour should have borne; while the small Residue is again divided into further Assortments, still more remote from answering the Regulations of the Laws, as they direct the several Sorts of Bread to be made.

In order precisely to state this Matter to the House, Your Committee next examined the Reports of the Commissioners of the Victualling Office, made to the Commissioners of the Admiralty, and dated *May* 30th, *June* 10th and 11th, 1774, and which were referred to this Your Committee. These Reports state the Issue of sundry Experiments made by that Board



Board, as to the Practicability and proper Mode of dressing the Flour of Wheat, conformable to what the Laws for the due making of Bread require, and as to the Produce of such Flour from Wheats of various Sorts — The Facts are so clearly demonstrated by those Experiments, and the Accounts are so distinctly drawn up, that Your Committee cannot better point their Information to the House, than by directing it in a Reference to the Reports themselves (A, B, C).

Your Committee however beg Leave to observe, That the Proportion of the Average Quantity of the Whole Flour in Weight, produced (when dressed through a Bolting Cloth as therein described, or through a Wire Machine as therein also described) to the Average Weight of all Sorts together of Wheats, from 51 *lb. p r* Bushel, to 61 *lb. per* Bushel, is nearly Three Fourth Parts of the Average Weight of the Bushel: That the Proportion of the Weight of the Flour to the Weight of the Wheat, in Wheats under 57 *lb. per* Bushel, is less than Three Fourths; but that in Wheats above that Weight of 57 *lb. per* Bushel, the Proportion in Flour is Four Fifths and upwards.

Your Committee next examined *Henry Pelham, Esq;* (Secretary to the Victualling Office) as to the Truth and Exactness of the Accounts annexed to the said Report, and instituted on the Experiments made; he acquainted Your Committee, that he had examined the same, and that he found them right: He was then desired to give the Committee such Observations as he had made relative to the Making of Flour and Bread; in Answer to which he referred to sundry Experiments instituted by him, and made under his Direction, which are hereunto annexed (G): He also delivered in a Paper of Observations and States of Accounts on this Subject, as what would give to the Committee the best Information that he was able to lay before them; this was accordingly read, and is hereunto annexed (H).

Your



Your Committee beg Leave to observe, from the Accounts stated and referred to in the said Reports and Papers, That although the Baker cannot afford to make, and has therefore never made, the real Wheaten and Household Bread, as intended to be made by the Act of the 31st of *George* the Second, while he is obliged to buy his Flour of the Mealman, under the Assortment and at the Prices which the Trade in general make and charge; nor the Standard Wheaten Bread as intended by the Act of the 13th of His present Majesty: Yet that if the Baker either buys his own Wheat, or that the Grinding and Dressing are such, and the Price so charged as those Acts suppose (which with full and ample Allowance to the Miller, Mealman, and Baker they can be) the Baker is very fully enabled to make such several Sorts of Bread as the Law requires, and to sell them at such Price as the Law directs, with a considerable Profit over and above the Allowance which the Law and the Magistrate make him, according to the present Setting of the Assize on Bread—Secondly, That while the Mealman can obtain £. 1. 4s. 8d. on the Grinding and Dressing of a Load or Five Quarters of Wheat, according to the general present Mode of the Trade, he will never dress or prize his Flour otherwise: While the Baker, buying his Flour of those Assortments, and at those Prices, is to lose on the Household Bread of the 31st of *George* the Second, Twenty Shillings and One Penny of the due Profit which he ought to have on Sixty Peck Loaves of the same; and while in like Manner (if he is to buy his Flour as before) he is to lose on the Standard Wheaten Bread of the 13th of His present Majesty, One Pound and a Penny Farthing on One Hundred and Twenty Peck Loaves, he never will or can make either the one or the other.

Thirdly,



Thirdly, That until the Mealman is obliged to dress the Flour into such Sorts as are suited to the Sorts of Bread which the Law intends should be made; that is to say, into the Whole Flour, as it is described in the Act for the better regulating the Assize, &c. passed last Sessions, for the Standard Wheaten Bread; or by so dividing the Whole Flour into Two Sorts only, as shall be suited to the Wheaten and Household Bread, as directed by the Act of the 31st of *George* the Second; and until such Whole Flour, and such Sorts of Flour, are sold at Prices proportioned to the Price of Wheat on one Hand, and to the Price of Bread on the other; all Regulations respecting Bread must be nugatory; all Assize on Bread impracticable, or otherwise oppressive to the Farmer on one Hand, or to the Baker on the other; and in the End a Grievance to the poor Labourer, Mechanic, and Manufacturer.

Lastly, It appears to Your Committee, from the Reports of the Commissioners of the Victualling Office, that the Flour may easily, and by less Labour than is used in the Modes ordinarily practised, be so divided; and that the Whole Flour may be made the Standard for the Regulations of an Assize of Flour, in Proportion to the Value of the Wheat; and that the Sorts arising from the Division of this Whole Flour into Two equal Moieties, may be assized in Proportion thereto, by setting the Price of the Household (that is to say, that Flour which is intended for the Household Bread) One Eighth less than the Standard Wheaten, and the Wheaten Flour One Eighth more than the Standard Wheaten, and the Household Flour One Fourth less than the Wheaten Flour; so as the Wheaten and Household Flour together shall make up the Price of the Standard Wheaten, or Whole Flour; which Regulations will precisely suit the Proportions that the Law hath prescribed to the Assize of the several Sorts of Bread.

Your



Your Committee next examined *Thomas Farrer*, Esquire, as to the Truth of sundry Experiments, and of Accounts instituted thereon, which had been communicated by him, respecting the Quantity of Flour, and of Bread, produced from different Sorts of Wheat; and he acquainted the Committee, That the Experiments had been made by his Direction, and under his own Inspection; and that the Accounts were right: These Experiments and Accounts are also annexed to this Report (I).

One of the Members of this Committee laid before your Committee, a Narrative of the Proceedings respecting the carrying the Bread Act of last Sessions into Execution in the County of *Devon*, and in the City of *Exeter*; also, of sundry Experiments made at that Time by himself, with Two other Justices, and others, respecting the making of Flour and Bread, as more particularly relating to the Operation of the Provisions of the said Act, with his Observations thereupon; which we have, for the further and fuller Information of the House, annexed to this Report (K), and to which we beg Leave to refer.

Doctor *Charles Irwin* having been desired to analyse Flour and Bread taken from different Parts in *London*, in order to ascertain, as far as the same could be done, whether there were any Adulterations of the Flour, or any undue Mixtures, to be found in the common Bread of *London*, and what such were; as also what were the Defects; as to him, from the Institution of his Experiments, should appear; he attended Your Committee, and delivered in an Account of the Process of such Experiments, as he had made, and his Reasoning thereupon. As it appears to Your Committee, that it is of Consequence to the Public, not only that they should be apprised of any Defects which may appear, but also that any Prejudices as to the Existence of supposed Frauds,  
if



if such on Experiments should be found not to exist, should be removed, we have annexed this the Doctor's Account (L), and beg Leave to refer to it on this Head.

Finally, Your Committee came to the following Resolutions; *viz.*

*Resolved,*

That it appears to this Committee, That until the Statute, intituled, "*Affisa Panis et Cervisæ*," made in the Fifty-first Year of the Reign of Henry the Third, was repealed, by an Act, intituled, "An Act to regulate the Price and Affize of Bread," passed in the Eighth Year of the Reign of Queen Anne, the Charge of the Grinding and Dressing the Corn into Meal and Flour was included in the Affize which was set upon Bread from the Price of Wheat.

*Resolved,*

That it appears to this Committee, That the setting any Affize on Bread, and the fixing a Rate upon the Labour, Pains, Livelihood, and Profit of the Baker, so long as the Miller or Mealman is at Liberty to make what Sorts of Flour he shall please, and to affix thereunto what Prices he shall in like Manner please, for his Labour, Pains, Livelihood, and Profit, is either impracticable, or must be injurious to the Baker, or a great Burthen to the poor Labourer, Mechanic, and Manufacturer.

*Resolved,*

That it appears to this Committee, That the Evils arising from there being no Restraint, either with respect to the Sorts of Flour that are made, or to the Prices at which they are sold, may be remedied by setting, such an Affize upon Flour as shall be found just and reasonable, with respect to the Average Market Price of Wheat.

*Resolved,*



*Resolved,*

That it appears to this Committee, That the Whole Flour of Wheat is in general, as it hath always proved to be, in Weight nearly Three Fourth Parts of the Weight of the middling Grain.

*Resolved,*

That it appears to this Committee, That, according to the ancient Custom of the Land, every Twentieth Grain, or Five *per Centum* of the Weight of the Wheat, is full and sufficient Toll for the Miller's Labour, Pains, Livelihood, and Profit.

*Resolved,*

That it appears to this Committee, That every Miller, if the Law does not at present oblige him so to do, should, under certain Restrictions, be obliged to grind and dress all such Wheat as shall be brought to his Mill by any Person requiring the same.

*Resolved,*

That it appears to this Committee, That Forty-two Pounds Avoirdupoise of the Whole Flour, when sold at the Mill, is equal in Value to the middling Price of a *Winchester* Bushel of middling Wheat at the same Time.

*Resolved,*

That it appears to this Committee, That the Magistrate, Magistrates, and others, who is and are by the Laws now in being authorized and impowered to set the Assize and fix the Price on Bread, should be authorized and impowered in like Manner to set the Assize and fix the Price of Flour.

*Resolved,*

That it appears to this Committee, That when the Magistrates, who are by the Laws now in being authorized so to do, shall have prohibited any Bread purporting to be of a superior Quality, or sold at an higher Price than the Standard Wheaten Bread, from being made for Sale, they be impowered in



like Manner to prohibit, if they think proper, any Flour purporting to be of a superior Quality, and sold at an higher Price, than the Whole Flour of Wheat, from being made for Sale, or sold, except for the Purposes of making such small Bread as may then be allowed (by Licence under the Hand and Seal of such Magistrate) or for the Purposes of Pastry and Confectionary.

*Resolved,*

That it appears to this Committee, That the said Magistrates shall, in order to enforce the Regulations made respecting the Standard Wheaten Bread, be empowered to order, if they think proper, that no Miller or Mealman shall use, during the Continuance of such their Order, any Bolting Cloth finer than herein described; that is to say, A Cloth Six Feet in Length, and Six Feet Seven Inches in Breadth at the Head, and Six Feet Broad at the Tail, composed of Woollen Yarn, and weighing One Pound when new, having Thirty-two Threads to an Inch in the Warp, and Twenty-eight Threads to an Inch in the Shute, and what is at present known and commonly called a Thirteen Shilling Cloth: Nor any finer Wire Sieve, or Machine, than that which consists of Forty-two Wires to an Inch both Ways, and the Weight of Six Inches square of which is One Ounce and One Dram.



## A P P E N D I X.

## A.

Victualling-Office, 30th May, 1774.

S I R,

**I**N your Letter of the 8th of *March* last, you were pleased to transmit us a Letter from Mr. *Cooper*, one of the Secretaries of the Treasury, to the Right Honourable the Lords Commissioners of the Admiralty, inclosing a Memorandum from Gov. *Pownal*, requesting that some Experiments might be made at this Office relating to the Dressing of Meal, and signifying the Desire of the Right Honourable the Lords Commissioners of his Majesty's Treasury, that Experiments might be made accordingly: And the Directions of the Right Honourable the Lords Commissioners of the Admiralty having been signified to us by your said Letter, to cause Experiments to be made agreeable to the Governor's Request, and to report to their Lordships the Result thereof;

We pray Leave to acquaint you, for the Information of their Lordships, that the Governor's Request consists of the following Heads; *viz.*

1<sup>st</sup>, To ascertain, when the Whole Meal of Wheat is intended to be so dressed, as that the *Whole Flour* may be separated from the Bran, or Hull, by whatever Names they may be called, what that Bolting Cloth is, which will best and nearest perform that Operation.

2<sup>dly</sup>, To ascertain, when the said Whole Flour of the Wheat is intended to be so divided, as that One Half only, containing the finest Parts, may be separated, leaving behind the other Half, con-



taining the coarser Parts, what Bolting Cloth will best and nearest perform that Operation.

3dly, That Two Wire Machines might be ordered to be made ; which would perform the said Operations.

4thly, That in ascertaining the Bolting Cloths, the Weight of them be marked, when new, either by the Yard square, or the Price of given Dimensions, and what Number of Threads are contained in an Inch square, both in Warp and Shute.

5thly, That the Wire of which the Bolting Machines shall be made, be described, and how many Wires there are both Ways, in an Inch square, as fixed and numbered by the Maker.

6thly, That in making the said Experiments of separating the Whole Flour from the Hull, the Enquiry be instituted on Wheats of all Weights separately, both of new and old Wheats, and upon such a Mixture jointly, as might form an Average for the Whole ; marking the Weight of the Wheat, the Waste in grinding and dressing, and the Weight of the Whole Flour ; and the Weight of the Bran and the Hull, and the Weight of the Whole Flour, from a Bushel of Wheat of all the Sorts separately, and of the Whole jointly.

In order to comply therewith, we ordered Seven Parcels of Five Quarters of Wheat each, of the Growth of the last Year, and of the following Weights, to be bought ; viz.

	Pounds.
Five Quarters of	52 per Bushel.
Five Quarters of	53 per Ditto.
Five Quarters of	55 per Ditto.
Five Quarters of	57 per Ditto.
Five Quarters of	59 per Ditto.
Five Quarters of	61 per Ditto.
Five Quarters of	62 per Ditto.

In



In Pursuance of which, our Officers purchased Seven Parcels of Wheat of Five Quarters each, of the Growth of the last Year, as near the above Weights as they could meet with; *viz.*

	Pounds	oz.	dr.	
Five Quarters of 51	14	9	$\frac{2}{4}\frac{4}{0}$	<i>per</i> Bushel.
Five Quarters of 53	3	0	—	<i>per</i> Ditto.
Five Quarters of 55	0	6	$\frac{1}{4}\frac{6}{0}$	<i>per</i> Ditto.
Five Quarters of 56	15	12	$\frac{3}{4}\frac{2}{0}$	<i>per</i> Ditto.
Five Quarters of 59	0	8	—	<i>per</i> Ditto.
Five Quarters of 60	10	4	$\frac{3}{4}\frac{2}{0}$	<i>per</i> Ditto.
Five Quarters of 61	9	14	$\frac{1}{4}\frac{6}{0}$	<i>per</i> Ditto.

And the Account (N<sup>o</sup> 1) enclosed, shews the Waste in grinding of each Parcel; also the Weight of the Flour of the Whole Wheat produced therefrom, dressed through a Thirteen Shilling Bolting Cloth; also of the Bran, and how much the said Flour turns out from a Bushel of Wheat from each Parcel; also the Weight of Bran from Ditto: And how much the said Flour and Bran comes out from a Bushel of Wheat, upon an Average of the Seven Parcels. And we are to observe, that there doth not appear to us to be any Bolting Cloth that will, at One Dressing, clear the Bran and Pollard so thoroughly from the Flour, but what some very small Portion of the finest Part of the Pollard will remain therein, unless the Bolting Cloth be so fine as to give Room for a great deal of the Flour to pass off with the Bran. But we apprehend that a Thirteen Shilling Cloth will, at One Dressing, clear the Meal from the Bran and Pollard so nearly, as to produce what may be very well deemed the Whole Flour of the Wheat, or Standard Wheaten Flour.

Governor *Pownal* having, since his Memorandum before mentioned, signified his Desire that Experiments on Three or Four Parcels of such Wheat as is most common in Market for Bread, might be made



made through a Fourteen Shilling Cloth, we made Enquiry concerning those Sorts, and ordered our Officers to buy,

	Pounds.
Five Quarters of Wheat of 58	<i>per</i> Bushel.
Five Quarters of Ditto of 59	<i>per</i> Ditto.
Five Quarters of Ditto of 60	<i>per</i> Ditto.
Five Quarters of Ditto of 61	<i>per</i> Ditto.

And to cause Half the Meal that should be produced therefrom to be dressed through a Fourteen Shilling Cloth, and the other Half through a Thirteen Shilling Cloth. In Pursuance of which they purchased the following Parcels, being as near the Weights directed as could be met with; *viz.*

	Pounds	oz.	dr.	
Five Quarters of 58	1	9	$\frac{24}{40}$	<i>per</i> Bushel.
Five Quarters of 58	15	14	$\frac{16}{40}$	<i>per</i> Ditto.
Five Quarters of 59	13	9	$\frac{24}{40}$	<i>per</i> Ditto.
Five Quarters of 61	0	0	—	<i>per</i> Ditto.

And having dressed Half the Meal arising therefrom, through a Fourteen Shilling Cloth, and the other Half through a Thirteen Shilling Cloth, the Account enclosed (N<sup>o</sup> 2) shews the Weight of Flour and Bran produced at One Dressing through a Fourteen Shilling Cloth; and the Account (N<sup>o</sup> 3) the Weight of Flour and Bran, produced at one Dressing through the Thirteen Shilling Cloth: So that by comparing those Accounts, the different Produce arising from dressing with the said Cloths, will appear in the clearest Manner.

And with respect to the Description of the said Cloths, they are each of them Six Feet in Length, and Six Feet Seven Inches in Breadth at the Head, and Six Feet broad at the Tail, and are composed of Woollen Yarn, and weigh One Pound each when new. And the Thirteen Shilling Cloth consists of  
Thirty-



Thirty-two Threads to an Inch in the Warp, and of Twenty-eight to an Inch in the Shute. And the Fourteen Shilling Cloth consists of Forty Threads to an Inch in the Warp, and Thirty-six to an Inch in the Shute.

And with regard to that Part of the Governor's Memorandum which desires that it may be ascertained what Sort of Bolting Cloth will, at One Operation, separate the finest Half of the Flour from the coarser Half; we beg Leave to observe, that we do not believe, from the Trials which have been made, that any One Sort of Bolting Cloth will perform that Operation: But we have Room to think that the End may be obtained by dressing through Two different Cloths; and our Officers are under Orders to try how far this may succeed, and we shall very shortly make a Report thereof to their Lordships.

We bespoke, and have very lately received Two Wire Machines for dressing of Flour, from the Patentee at *Manchester*; One of which is intended to try whether the Whole Flour of the Wheat can be separated at One Operation, and the other to ascertain, whether at One Operation, the finer Half of the Flour can be separated from the coarser Half; and we have ordered them to be forthwith set up at His Majesty's Mills, and Trials to be made how they will answer: which we shall report to their Lordships as soon as possible.

We beg Leave, lastly, to observe, That Governor *Pownal*, in his Memorandum, desired that the Experiments mentioned therein might be made both from new and old Wheats; but as we were informed, upon Enquiry, that there was then very little, if any, Difference between the Wheats of the Growth of the last Year, and those which were older, and that it would be very difficult to meet with the latter of the different Weights that were judged



judged expedient to be made Trial of, we thought it the most certain Way to make Use of the Wheats of the Growth of the last Year for the several Experiments, and gave Directions therein accordingly; but if the Governor should think it material to have any older Wheats made Trial of, we shall endeavour to procure such as he may point out for that Purpose. We herewith return Mr. *Cooper's* Letter, and Governor *Pownal's* Memorandum which accompanied the same; and are,

S I R,

Your most humble Servants,

*Jas Wallace, Robt Pett, Jonas Hanway,  
Thos Colby, A. Chorley.*

*Philip Stephens, Esquire,  
Secretary of the Admiralty.*



# N<sup>o</sup>. 1.

An ACCOUNT, shewing the Weight of the WHOLE FLOUR of the Wheat, without any Division, produced from Seven different Parcels of that Grain, of the respective Weights *per* Bushel against each Parcel exprested, by dressing through a Thirteen Shilling Bolting Cloth only: Also, the Weight of Bran arising from each Parcel of Wheat; and how the Weight of the said WHOLE FLOUR, and Bran, from a Bushel of Wheat, comes out from each Parcel respectively: Also, the Average Weight of the Whole Flour, and Bran, from a Bushel of Wheat, taking all the Seven Parcels of Wheat together; *viz.*

W H E A T.				M E A L.		Lofs on grind- ing.		The whole Flour of the Wheat, dressed thro' a Thirteen Shilling Cloth.		Lofs on dres- sing.		BRAN.		Weight of Flour produced from a Bushel of Wheat of each Parcel.		Weight of Bran produced from a Bushel of Wheat of each Parcel.		Average Weight of the whole Flour, from a Bushel of Wheat, on the whole of the 7 Parcels.		Average Weight of Bran, from a Bushel of Wheat, on the whole of the 7 Parcels.		
Measure.	Weight per Bushel.	Weight of the Whole.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	oz.	dr.	lb.	oz.	dr.	lb.	oz.	dr.
5	14 $\frac{9}{40}$	2,076 $\frac{1}{2}$	2,046 $\frac{1}{2}$	30	1,375 $\frac{3}{4}$	22 $\frac{1}{4}$	648 $\frac{1}{2}$	34	6	16	3	6										
5	3 —	2,127 $\frac{1}{2}$	2,109 $\frac{1}{2}$	18	1,545 $\frac{1}{2}$	16 $\frac{1}{4}$	547 $\frac{3}{4}$	38	10	13	11	1										
5	6 $\frac{16}{40}$	2,201	2,174 $\frac{1}{4}$	26 $\frac{3}{4}$	1,588 $\frac{1}{2}$	21 $\frac{1}{4}$	564 $\frac{3}{4}$	39	11	14	1	14										
5	15 $\frac{12}{40}$	2,279 $\frac{1}{2}$	2,254 $\frac{1}{4}$	25 $\frac{1}{4}$	1,744 $\frac{3}{4}$	15	494 $\frac{1}{2}$	43	9	12	5	12										
5	8 —	2,361 $\frac{1}{4}$	2,337 $\frac{1}{4}$	24	1,841 $\frac{1}{4}$	8 $\frac{1}{4}$	487 $\frac{3}{4}$	46	—	12	3	1										
5	10 $\frac{4}{40}$	2,425 $\frac{1}{4}$	2,402 $\frac{1}{2}$	23 $\frac{1}{4}$	2,010 $\frac{1}{2}$	7 $\frac{1}{2}$	384 $\frac{1}{2}$	50	4	9	9	12										
5	9 $\frac{14}{40}$	2,464 $\frac{3}{4}$	2,437	27 $\frac{3}{4}$	2,036 $\frac{3}{4}$	8 $\frac{1}{2}$	391 $\frac{1}{4}$	50	14	9	12	11										
																	43	5	13	12	9	—



N<sup>o</sup>. 2.

An ACCOUNT, shewing the WHOLE FLOUR of the Wheat, without any Division, produced from Four Parcels of the said Grain, of the respective Weights *per* Bushel against each Parcel expressed, by dressing through a Fourteen Shilling Bolting Cloth only: Also, the Weight of Bran arising from each Parcel; and how the Weight of the said WHOLE FLOUR, and Bran, from a Bushel of Wheat, comes out from each Parcel respectively: Also, the Average Weight of the said Flour, and Bran, from a Bushel of Wheat, taking all the said Four Parcels of Wheat together.

W H E A T.				MEAL.		Loss in grinding.	The whole Flour of the Wheat, dressed thro' a Fourteen Shilling Cloth.	Loss on dressing.	BRAN.	Weight of Flour from a Bushel of Wheat from each Parcel.	Weight of Bran from a Bushel of Wheat from each Parcel.	Average Weight of Flour from a Bushel of Wheat, on the Whole of the Four Parcels.		Average Weight of Bran from a Bushel of Wheat, on the Whole of the Four Parcels.		
Measure.	Weight per Bushel.	Weight of the Whole.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	oz.	dr.	lb.	oz.	dr.
2	4	58	1,162	1,149	13	914	3½	23½	45	11	3	11	9	—	—	—
2	4	58	1,179¾	1,167½	12¼	934¾	—½	23¼	46	11	12	11	9	—	—	—
2	4	59	1,197	1,185½	11½	948½	5½	232	47	6	12	11	9	5	11	6
2	4	61	1,220	1,208¾	11¾	989¾	4¾	214½	49	7	9	10	11	—	—	—



No. 3.

An ACCOUNT shewing the WHOLE FLOUR of the Wheat, without any Division, produced from Four Parcels of the said Grain, of the respective Weights *per* Bushel against each Parcel exprest, by dressing thro' a Thirteen Shilling Bolting Cloth only: Also, the Weight of Bran arising from each Parcel; and how the Weight of the said WHOLE FLOUR, and Bran, from a Bushel of Wheat, comes out from each Parcel respectively: Also, the Average Weight of the said Flour, and Bran, from a Bushel of Wheat, taking all the said Four Parcels of Wheat together.

W H E A T.				M E A L.		L o s s in grind- ing.		The whole Flour of the Wheat, dressed thro' a Thirteen Shilling Cloth.		L o s s on dress- ing.		B R A N.		Weight of Flour from a Bushel of Wheat from each Parcel.		Weight of Bran from a Bushel of Wheat from each Parcel.		Average Weight of Flour from a Bushel of Wheat on the Whole of the Four Parcels.		Average Weight of Bran from a Bushel of Wheat on the Whole of the Four Parcels.						
Measure.	Weight per Bushel.	Weight of the Whole.	Qrs	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	oz.	dr.	oz.	dr.
2	4	58 1 9 <sup>2</sup> / <sub>4</sub>	2	4	58	1	9 <sup>2</sup> / <sub>4</sub>	1,149	1,162	13	928	3 <sup>3</sup> / <sub>4</sub>	217 <sup>1</sup> / <sub>2</sub>	46	6	6	10	14	—	—	—	—	—	—	—	—
2	4	58 15 14 <sup>1</sup> / <sub>4</sub>	2	4	58	15	14 <sup>1</sup> / <sub>4</sub>	1,167 <sup>1</sup> / <sub>2</sub>	1,179 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	948	2	217 <sup>3</sup> / <sub>4</sub>	47	6	6	10	14	3	—	—	—	—	—	—	—
2	4	59 13 9 <sup>2</sup> / <sub>4</sub>	2	4	59	13	9 <sup>2</sup> / <sub>4</sub>	1,185 <sup>1</sup> / <sub>2</sub>	1,179	11 <sup>1</sup> / <sub>2</sub>	961	2 <sup>1</sup> / <sub>4</sub>	222 <sup>1</sup> / <sub>4</sub>	48	12	—	—	—	—	—	—	—	—	—	—	—
2	4	61 —	2	4	61	—	—	1,208 <sup>1</sup> / <sub>2</sub>	1,220	11 <sup>3</sup> / <sub>4</sub>	1,015 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	188 <sup>1</sup> / <sub>4</sub>	50	12	3	9	6	9	—	—	—	—	—	—	—



## B.

Copy of a Letter from the Commissioners for victualling His Majesty's Navy, to *Philip Stephens*, Esquire, Secretary of the Admiralty, dated 10th *June*, 1774.

**I**N our Letter of the 30th of last Month, we acquainted you, for the Information of the Right Honourable the Lords Commissioners of the Admiralty, that we did not believe, from the Trials which had been then made, that any One Sort of Bolting Cloth would, at One Operation, separate the finest Half of the Flour from the coarser Half; but that we had Room to think the End might be obtained by dressing through Two different Cloths. And from the Trials that have been made since, it appears, that a Thirteen Shilling Cloth and a Twenty one Shilling Cloth, by being made Use of in the Manner described in the inclosed Account (N<sup>o</sup>. 1) will come as near the Matter as can be reasonably expected.

We further acquainted you, that we had received Two Wire Bolting Machines from *Manchester*, for dressing of Flour; One of them calculated to take out the Whole Flour of the Wheat at One Operation; and the other for separating, at One Operation, the finer Half of the Flour from the coarser Half; And Trial having been since made of the said Machines, it appears by the enclosed Account (N<sup>o</sup>. 2) that the Machine which was marked (A), and calculated to separate the Whole Flour of the Wheat at One Operation, produces Flour, in Quantity and Quality as nearly equal as can be reasonably expected, to the Flour dressed through a Thirteen Shilling Cloth; and therefore we apprehend will answer the Purpose intended. The Description of the Wire Work of this Machine, is upon the said Account, (N<sup>o</sup>. 2).

But



But with respect to the other Machine, which was designed to separate, at one Operation, the finer Half of the Flour from the coarser Half; we find upon Trial, that it will not answer that End, without undergoing some Alteration.

N<sup>o</sup>. 1.

An ACCOUNT, shewing what Bolting Cloths will, on dressing of Flour, divide the same into the finer Half for Wheaten Bread, and the coarser Half for Household Bread; so far as Experiments have been made; viz.

Flour from 5 Qrs. of Wheat, weighing 59 lb. 12 oz. and 6 dr. $\frac{1}{4}$ lb., dressed thro' a 13 Shilling Cloth, amounted to			Flour, 1,956 Pounds 8 Ounces, which was dressed thro' a 13 Shilling Cloth; being dressed again thro' a 21 Shilling Cloth, with a Partition placed in the Bolting Mill, at 3 Feet 7 Inches on a Medium from the Head of the said Mill, produced,								
			In the Upper Division.			In the Lower Division.					
			Finest Flour.			Coarser Flour.					
			Pounds.	oz.	dr.	Pounds.	oz.	dr.	Pounds.	oz.	dr.
1,956			8	—	—	959	—	—	992	—	—

N. B. The above Dressings divide the whole Flour of the Wheat, Half into the finer Sort, and Half into the coarser Sort, within 33 Pounds, out of 1,956 Pounds 8 Ounces.

N<sup>o</sup>. 2. An



N<sup>o</sup>. 2:

An ACCOUNT, shewing the Produce of Flour, from 5 Quarters of Wheat, of 59 Pounds 10 Ounces 6 Drams  $\frac{16}{48}$  *per* Bushel, dressed at One Operation through the Wire Bolting Machine (marked A) which is described at the Foot hereof; *viz.*

Wheat weighing 59 lb 10 oz 6 dr. $\frac{16}{48}$ <i>per</i> Bushel.	Total Weight of the Wheat.	Weight of the Meal.	Weight of the Flour.	Weight of the Bran.	Weight of Flour from a Bushel of Wheat.			Weight of Bran from a Bushel of Wheat.		
Quarters.	Pounds.	Pounds.	Pounds.	Pounds.	lb.	oz.	dr.	lb.	oz.	dr.
5	2,386	2,355 $\frac{3}{4}$	1,934 $\frac{1}{2}$	410	18	5	12	10	4	—

N. B. The Wire Work of the above Machine consists of 42 Wires to an Inch both Ways, and the Weight of Six inches square of the said Wire Work is One Ounce and One Dram.



## C.

Copy of a Letter from the Commissioners for victualling His Majesty's Navy, to *Philip Stephens*, Esquire, Secretary of the Admiralty, dated 11th *June*, 1774.

**I**N addition to our Letter of Yesterday's Date, relating to the Experiments of dressing of Flour, we pray Leave to acquaint you, for the Information of the Right Honourable the Lords Commissioners of the Admiralty, that a Twenty-one Shilling Bolt-ing Cloth is Six Feet in Length, and Six Feet Seven Inches in Breadth at the Head, and Six Feet broad at the Tail; and is composed of Woollen Yarn; and weighs One Pound when new; and consists of Sixty-four Threads to an Inch in the Warp, and of Fifty-two Threads to an Inch in the Shute.

## D.

The Average Price of Wheat at the Corn Exchange, per Quarter, with the Price of Flour.

1759.

£. s. d.

<b>F</b> ROM September 3d,	
to September 10th	1 8 1½ per Quarter
New Wheaten Flour sold	
for	1 8 0 per Sack
Old D°	1 7 0
From September 10th to	
September 17th	1 8 0 per Quarter
Wheaten Flour sold for	1 7 0 per Sack
From September 17th to	
September 24th	1 7 4½ per Quarter
Wheaten Flour sold for	1 6 0 per Sack

1773. From



1773.

£. s. d.

From 4th October to 6th

October

2 10 7 $\frac{1}{4}$  per Quarter

Flour (New)

2 7 0 per Sack

D<sup>o</sup> (Old)

2 8 0

From 6th October to 11th

October

2 7 7 $\frac{1}{4}$  per Quarter

Flour (New)

2 7 0 per Sack

D<sup>o</sup> (Old)

2 8 0

From 11th October to 13th

October

2 9 1 $\frac{1}{4}$  per Quarter

Flour (New) £. 2 6 0 and 2 7 0 per Sack

D<sup>o</sup> (Old)

2 8 0

The Report sets forth a long Account of the Average Price of Wheat and Flour, in the like Manner, from 1759 to and for 1773, and generally the Quarter of Wheat exceeds the Sack of Flour by 2 or 3 Shillings, very seldom under.

E. N<sup>o</sup> 1.

Copy of a Letter from Mr. Milne of Manchester.

Manchester, 1st January, 1774.

S I R,

A Few Days ago I sent directed to you ; viz.

		s.	£.	s.	d.
2 Divisions of finest	} N <sup>o</sup> 60, at 15 per		1	10	0
Wire Work,					
2 Ditto —		N <sup>o</sup> 58, at 15 per	1	10	0
2 Ditto —		N <sup>o</sup> 54, at 15 per	1	10	0
2 Ditto —		N <sup>o</sup> 48, at 10 per	1	0	0
2 Ditto —		N <sup>o</sup> 42, at 7 per	0	14	0
2 Ditto —		N <sup>o</sup> 35, at 7 per	0	14	0
2 Ditto —		N <sup>o</sup> 30, at 5 per	0	10	0
2 Ditto —		N <sup>o</sup> 24, at 2 6d. per	0	5	0
2 Ditto —		N <sup>o</sup> 12, at 2 6d. per	0	5	0

7 18 0

A Di-



A Division is in Length, juſt right to reach round a Machine, and in Breadth ſufficient to reach between one Wood Circle and another; but we generally make the Wire Work 2 Diviſions broad. Our common Flour Machines (of which I think we make Twenty Times as many as any other Sort) are intended to dreſs Fine Flour, 2ds, and 3ds, and divided the Pollard at One Operation: They are about 6 Feet long, and have 15 Diviſions of Wire Work in them, which are of the following Sorts; *viz.*

4 of the Top Diviſions, are	N <sup>o</sup> 54.
4 next —	N <sup>o</sup> 58, or 60.
3 D <sup>o</sup> —	N <sup>o</sup> 30, or 35.
2 D <sup>o</sup> for fine Pollard	N <sup>o</sup> 24.
2 D <sup>o</sup> for coarſe Pollard	N <sup>o</sup> 12.

And theſe Machines for dreſſing Biſket Stuff, are compoſed of Wire Work as follows:

4 Diviſions at Top	—	N <sup>o</sup> 35.
7 Ditto	— —	N <sup>o</sup> 42.
4 Ditto	— —	N <sup>o</sup> 24.

You have both of theſe Sorts of Machines in Uſe at your Mills at *Redhouſe* and *Rotherbithe*, on which Account I thought it would be beſt to ſend you perfect Diviſions as above; and when you have tried the neceſſary Experiments with them, they will do to repair thoſe Machines with. You deſire to know how many Wires there are in an Inch long and an Inch broad in every Sort of Wire Work: With regard to that, every Number deſcribes itſelf; for Inſtance, N<sup>o</sup> 60, hath 60 Wires in an Inch, both Length and Breadth; and ſo of all the reſt.

If you want any further Inſtructions, you may freely command,

S I R,

Your moſt obedient Servant,

*J<sup>n</sup>o Milne.*

Copy.

*Hen. Pelham.*

C

E. N<sup>o</sup> 2.



E. N<sup>o</sup> 2,

Copy of a Letter from Mr. *Milne*, of *Manchester*,  
to Mr. *Pelham* of the Victualling Office, dated  
the 2d of *February*, 1774.

S I R,

Y O U R Favour of the 27th lies before me, by which I observe you have received the Wire Work, &c. You desire to know what N<sup>o</sup> of Wire Work is proper, to take out of any given Quantity of Flour, about Half of the finest Sort, for Wheat-en Bread, the other Half to make Household Bread. I think 4 Divisions (N<sup>o</sup> 54) at the top of a Machine, will take out, in a general Way, about Half the Quantity of Flour for fine; yet I think it would be well to have 2 Divisions (N<sup>o</sup> 58) below these, because some Meal dresses better than others, and when it has been ground Ten Days or a Fort-night, it dresses better than when it is newly ground; and to dress the other Half of the Flour at the same Operation for Household Bread, the Wire Work should be N<sup>o</sup> 42; but by Means of a moveable Partition, under the Machine, (which I always recommend, see the Plan of the Machine) you may take Two of the first Divisions, or Three or Four, or what you please, and consequently have exactly what Quantity or Quality you will. The greatest Part of the Machines which I make for fine Flour, for all Parts of *England*, *Ireland*, &c. are of N<sup>o</sup> 54 and 58: and N<sup>o</sup> 60 is quite fine enough for *Hertfordshire* Whites. I think I mentioned before, that the Number of Wires in Length and Breadth, are always equal to the N<sup>o</sup> called. If you please, I will make any Machines in any particular Manner you choose;  
and



and if you want any other Directions, in any Respect whatsoever, you may freely command,

S I R,  
Your most obedient,  
humble Servant,  
*J<sup>n</sup>. Milne.*

*P. S.* If you let Mr. *Cooper* have the Wire Work, it will be very right.

Copy.

*Hen. Pelham.*

E. N<sup>o</sup> 3.

*Manchester, the 4<sup>th</sup> May, 1774.*

The honourable Commissioners

Bought of *Milne, Robinson and Place,*

	£.	s.	d.
2 Flour Machines and Packing Cases,			
at £. 13 each	—	26	0 0

Gentlemen,

**T**O your Order we have sent as above, which believe will answer the Purpose you desire them.—The Machine you desire, to dress at One Operation all the Flour, free from Bran and Pollard, is made of One Sort of Wire Work (N<sup>o</sup> 42); that is, there are 42 Wires in an Inch, and the Holes both in Length and Breadth are geometrical Squares; and the Weight of Six Inches square of this Wire Work is One Ounce and One Dram. The other Machine you desire, to dress Two Sorts of Flour, is composed of Wire Work as follows; viz. 6 Divisions (N<sup>o</sup> 54) and 9 Divisions (N<sup>o</sup> 42); the Weight of Six Inches square of the finest (N<sup>o</sup> 54) is just One Ounce, and the Holes are geometrical Squares; the other (N<sup>o</sup> 42) you have an Account of the Weight, &c. above, it being the same Fineness of Wire Work



the other Machine is composed of. This last Machine will, we believe, dress One Half of the Flour fine, and clear the other from the Bran and Pollard.

In order that you may distinguish one Machine from the other, that Machine which is composed of one Sort of Wire Work is marked (A), and the other. (B)

Extract.

*Hen. Pelham.*

F.

## MEMORANDUM.

**A** Description of the several Bolting Cloths most commonly used, from an Account of Mr. *William Mathers*, Bolting Cloth Weaver, at *Queen-bithe*, viz.

21 s.	Cloth	64	Threads to the	Inch, in the Warp.
		52	Ditto	Ditto, in the Shute.
18 s.	—	52	Ditto	Ditto, in the Warp.
		44	Ditto	Ditto, in the Shute.
16 s.	—	44	Ditto	Ditto, in the Warp.
		40	Ditto	Ditto, in the Shute.
14 s.	—	40	Ditto	Ditto, in the Warp.
		36	Ditto	Ditto, in the Shute.
13 s.	—	32	Ditto	Ditto, in the Warp.
		28	Ditto	Ditto, in the Shute.
8 s.	—	17	Ditto	Ditto, in the Warp.
		16	Ditto	Ditto, in the Shute.

*Henry Pelham.*

G. EXPE-



G.

EXPERIMENTS on the Produce of Wheat  
in Flour, Bran, &c.

1773, Nov. 25.

				lb.
<b>O</b> NE Quarter of new Wheat, of $59\frac{1}{4}$ lb.				
per Bushel	-	-	-	474
Produced Meal	-	-	-	468
Waste in Grinding	-	-	-	6

Meal as above	-	-	-	468
Dressed through a Thirteen Shilling Cloth, produced				lb.
Flour	-			374
Bran	-			92
Waste in Dressing				$1\frac{1}{2}$

This Flour therefore comes out at the Rate of  
46 lb. 12 oz. per Bushel.

				lb.
Two Quarters of new Wheat, at $57\frac{3}{4}$ per				
Bushel	-	-	-	924
Produced Meal	-	-	-	$909\frac{1}{2}$
Waste in Grinding	-	-	-	$14\frac{1}{2}$

Meal as above	-	-	-	$909\frac{1}{2}$
Dressed through a Thirteen Shilling Cloth, produced				lb.
Flour	-			708
Bran	-			196
Waste in Dressing				$5\frac{1}{2}$

This



This Flour comes out at the Rate of 44 lb. 4 oz.  
per Bushel.

1773, Nov. 29.

	lb.
One Quarter of new Wheat, at 60 lb. per Bushel	480
Produced Meal	476
Waste in Grinding	4
	<hr/>
Meal as above	476

Dressed through a Thirteen Shilling Cloth, produced lb.

Flour	383
Bran	92
Waste in Dressing	1

The above comes out at 47 lb. 14 oz. per Bushel.

**A B S T R A C T** of Four Quarters of Wheat ground, and then dressed through a Thirteen Shilling Cloth.

	lb.
From One Quarter, of 59 lb. per Bushel	374½
Two Quarters, of 57¾ lb. Ditto	708
One Quarter, of 60 lb. Ditto	383

1465½

Which is at the Rate of 45 lb. 12 oz. 12 dr. per Bushel, at an Average.

A B-



# ABSTRACT of the Bran produced from the above Wheat.

From One Quarter of Wheat, at 59 lb. <i>per</i>	lb.
Bushel	92
Two Quarters at $57\frac{1}{4}$ lb. Ditto	196
One Quarter at 60 lb. Ditto	92
	<hr/>
	380

Which is at the Rate of 11 lb. 11 oz. 14 dr. *per*  
Bushel, at an Average.

The  $1465\frac{1}{2}$  lb. of Flour produced as above, upon  
being dressed again together through,

	lb.	Prices of the Cloths.
Produced Households	1003	- 21 s.
Seconds	$144\frac{1}{2}$	- 18
Thirds	70	- 16
Middlings	212	- 13
Pollard	30	
	<hr/>	
	$1459\frac{1}{2}$	
Waste in Dressing	6	
	<hr/>	
	$1465\frac{1}{2}$	
	<hr/>	

The above Sorts of Flour taken all together, and  
including the Pollard, produced at the Rate of 45 lb.  
9 oz. 4 dr. *per* Bushel of Wheat.

And without the Pollard, at the Rate of 44 lb  
12 oz. 10 dr. *per* Bushel.

	Pounds.
Wheat, One Quarter, of 61 lb. <i>per</i> Bushel	488
Produced Meal	$483\frac{1}{2}$
	<hr/>
Loss in Grinding	$4\frac{1}{2}$
	<hr/>
	Meal



Meal from the above Quarter of Wheat	Pounds.
Which, being dressed through a Fourteen Shilling Cloth, produced,	483 $\frac{1}{2}$
Flour - - -	388
Bran - - -	93 $\frac{1}{2}$
	<hr/>
	481 $\frac{1}{2}$
Loss in Dressing - - -	<hr/>
	2 $\frac{1}{2}$

388 lb. of Flour come out at the Rate of 48 lb. 8 oz. from a Bushel of Wheat.

N. B. Last Year's Wheat.

Wheat, One Quarter, of 57 lb. <i>per</i> Bushel	Pounds.
Produced Meal - - -	456
	452 $\frac{3}{4}$
	<hr/>
Loss in Grinding - - -	3 $\frac{1}{4}$

Meal from the above Quarter of Wheat	Pounds.
Which, being dressed through a Fourteen Shilling Cloth, produced,	452 $\frac{3}{4}$
Flour - - -	353 $\frac{3}{4}$
Bran - - -	96 $\frac{3}{4}$
	<hr/>
	450 $\frac{1}{2}$
Loss in Dressing - - -	<hr/>
	2 $\frac{1}{4}$

353 $\frac{3}{4}$  lb. of Flour come out at the Rate of 44 lb. 3 oz. 8 dr. from a Bushel of Wheat.

N. B. Last Year's Wheat.

A B-



ABSTRACT of the Quantity of Flour produced from the Two Quarters of Wheat before-mentioned, dressed through a Fourteen Shilling Cloth.

	Pounds.
From One Quarter of Wheat, of 61 lb. per Bushel - - -	388
One Quarter of Ditto, of 57 lb. per Ditto - - -	353 $\frac{3}{4}$
Total - - -	<u>741<math>\frac{3}{4}</math></u>

The above Flour comes out at the Rate of 46 lb. 5 oz. from a Bushel of Wheat.

The Bran from the above Wheat was

	Pounds.
From the Quarter of 61 lb. to the Bushel -	93 $\frac{1}{2}$
From the Quarter of 57 lb. to Ditto -	96 $\frac{3}{4}$
Total - - -	<u>190<math>\frac{1}{4}</math></u>

Which is at the Rate of 11 lb. 14 oz. of Bran from a Bushel of Wheat.

The 741 $\frac{3}{4}$  lb. of Flour, which were produced from dressing through a Fourteen Shilling Cloth, upon being dressed again, produced the following Particulars; viz.

House-



	lb.	Prices of Cloths.
Households, or finest Flour	500 $\frac{1}{2}$	21 s.
Seconds - - -	118	18
Thirds - - -	35	16
Middlings - - -	64	14
Pollard - - -	17 $\frac{3}{4}$	
<hr/>		
Lofs in Dressing - -	735 $\frac{1}{4}$ 6 $\frac{1}{2}$	
<hr/>		
	741 $\frac{3}{4}$	
<hr/>		

The above Sorts of Flour, including the Pollard, come out at 45 lb. 15 oz. 8 dr. from a Bushel of Wheat.

And exclusive of Pollard, at 44 lb. 13 oz. 8 dr. from Ditto.

#### *Memorandum.*

The foregoing Account of Experiments of the Dressing of Flour, was sent by me to Governor *Pownall*, and is a true Copy of the Account which I have of those Experiments.

*Hen. Pelham.*

H.

#### OBSERVATIONS relating to BREAD and FLOUR.

**I**T would be needless to go about to prove, that Bread is one of the most important Articles amongst our Provisions; it being well known, that it constitutes a very considerable Part of the Aliment even



even of the greatest and most opulent People in this Kingdom, and that the poorer Sort of our Fellow Subjects do, at all Times, derive the greatest Part of their Subsistence from it.

Our Lawgivers were so well apprised of this, that from the most early Times, they took Care to ascertain and make known to the People, by Means of the Tables of Assize, the Quantity of Bread they had a Right to expect from the Bakers, according to the governing Market Prices of Wheat: And they also very humanely ordained, that Bread of different Prices should be made from this Grain, in order that the Poor might be able to procure a sufficient Quantity of it, for the Support of themselves and their Families, at a less Price than the rich.

And whoever considers this Matter with Attention, must soon perceive, that there is nothing which more nearly concerns the Generality of the People, than to be so far acquainted with what concerns the Article of Bread, as to be enabled to judge whether they are supplied therewith agreeable to the Directions of the Legislature. It is in this Persuasion that I venture to submit to the Committee the following Facts, States, and Observations, as my Information, in the best Form in which I can lay it before them. As the Laws relating to it are but few, I shall go back to the First Act for setting an Assize on Bread, that appears in the printed Collection of our Statutes, which was in the Fifty-first Year of *Henry the III.* and in the Year of Our Lord 1266.

By this Act, many Sorts of Bread from Wheat were allowed to be made and sold; but the great Length of Time which has intervened, renders it more difficult than could be wished, to explain all the Particulars relating to them: I shall therefore confine myself to the Three following Sorts; *viz.*  
Wastell



Wastell Bread, Bread of the Whole Wheat, and Bread Treet.

The First of them, that is to say, the Wastell Bread, which was the finest of the Three, was to weigh half as much as the Bread Treet, which was the coarsest ; and the Bread of the Whole Wheat, which was the Middle Sort, was to weigh Three-fourths of the Bread Treet. And, by the Affize Table in the said Act, when Wheat was at Twelve Pence *per* Quarter, the following Quantities of the Three Sorts of Bread before-mentioned were to be sold for One Farthing ; *viz.*

		To weigh.		
		£.	s.	d.
Wastell Bread,	of a Farthing,	6	16	0
Bread of the Whole Wheat,	of ditto	10	7	0
Bread Treet,	of ditto	13	12	0

And the Act expressly says, “ That then a Baker, “ in every Quarter of Wheat, (as is proved by the “ King’s Bakers) may gain Four Pence and the “ Bran, and Two Loaves for Advantage.” So that, admitting these Two Loaves to be Farthing Loaves, which is the only Sort mentioned in the Act, the Bread produced from a Quarter of Wheat at that Time (computing from the Bread of the Whole Wheat) was 517 Pounds 6 Ounces Troy ; which is equal to 426 Pounds 1 Ounce 12 Drums Avoirdupois, and comes out at the Rate of 53 Pounds 4 Ounces of Bread from a Bushel of Wheat.

It appears further, that the Affize of Bread was directed by this Act to be set from the Middle Price of Wheat : And as it informs us, that the Bakers would gain the Bran, and takes Notice of their Bul-tel (or Bolting) among their Charges, it is evident that they dressed their own Flour, and, except the Grinding, were the sole Manufacturers of Wheat into Bread.

This



This Statute continued in Force for the long Term of Five Hundred Years and upwards, or till the Year 1709, which was in the Eighth Year of the Reign of Queen *Anne*; when it was repealed, and a new one made for regulating the Assize and Price of Bread; the Preamble whereof sets forth, "That the before-mentioned Act of *Henry* the Third was expressed in Terms so obscure and impracticable in those Times, that many Doubts and Difficulties did daily arise in the Construction thereof; whereby little or no Observance had in many Places been made, either of the due Assize, or reasonable Price of Bread; and that covetous and evil-minded People, taking Advantage of the same, had, for their own Gain and Lucre, deceived and oppressed her Majesty's Subjects, and more especially the poorer Sort of People."

By this Act of the Eighth of Queen *Anne*, only Three Sorts of Bread were retained and allowed to be made and sold; viz. White, Wheaten, and Household; which were to weigh in Proportion to each other as follows; viz. the White, which was the finest, was to weigh Half as much as the Household, which was the coarsest; and the Wheaten, which was the Middle Sort, was to weigh Three Fourths as much as the Household: Which said Proportions correspond exactly with those which the Wastell Bread, and Bread Treet, and the Bread of the Whole Wheat, under the Act of the 51st of *Henry* the Third, were to bear to each other.

And the Magistrates, upon the setting the Assize under this Act of Queen *Anne*, were empowered to make a reasonable Allowance to the Bakers, for their Charges, Pains, and Livelihoods; and the Assize Table was so formed, as that the Quantity of Bread which a Bushel of Wheat was calculated to produce, would yield the Bakers the Market Price of the Bushel



Bushel of Wheat, and likewise the Sum allowed by the Magistrates for their Charges, Pains, and Livelihoods.

This will appear very plain, by stating the Assize of Bread to be set at *London*, under the said Act, from Wheat and Baking, at Six Shillings *per* Bushel; *viz.*

The Baker — — Dr	Per Contra — — Cr
s. d.	s. d.
To Wheat One Bushel	By 2 Twelve Penny Loaves of White Bread, of 5 lb. 12 oz 8 dr. each
To Bakers Allowance on ditto, from the Magistrates	By 2 Twelve Penny Loaves of Wheaten Bread, of 8 lb. 11 oz. 1 dr. each
	By 2 Twelve Penny Loaves of Household Bread, at 11 lb. 9 oz. 6 dr. each
6 0	6 0

And the said State will also prove, that the Weight of Bread which the Bakers were required to deliver to the Public, from a Bushel of Wheat, under the said Act, was 52 lb. 2 oz. *viz.*

Two



	lb.	oz.	dr.
Two Shillings worth of White Bread	11	4	9
Two Shillings worth of Wheaten D <sup>o</sup>	17	6	2
Two Shillings worth of Household D <sup>o</sup>	23	2	12
	<hr/>		
	52	2	2
	<hr/>		

And any other Article of Wheat and Baking, in the Affize Table, will, upon Examination, bring out the like Proof.

But this Act had one capital Defect in it; which was, that it did not require the Affize of Bread to be set from the Middle Price of Wheat; which seems the more extraordinary, as it was expressly enjoined by the Statute of the 5<sup>th</sup> of *Henry the Third*, which immediately preceded it: And the Want of such a Restriction, left the Magistrates at Liberty to set the Affize of Bread from the highest Price of Wheat; and it has been publicly asserted, that they actually set the Affize in that Manner.

However, with this Defect in it, the Act continued in Force till the Year 1757, which was in the Thirty-first Year of the Reign of King *George the Second*; when (with other Acts, continuing or amending the same) it was repealed, and a new one made for the regulating the Affize of Bread. The Preamble of which doth not point out any particular Faults in the aforesaid Act of *Queen Anne*, but only observes in general, "That it was expedient to reduce into One Act, the several Laws then in force relating to the due Making, and to the Affize of Bread; and to make some Alterations and Amendments therein." And to the Intent therefore, that from and after the 29<sup>th</sup> of *September*, 1758, a plain and constant Rule and Method might be duly observed and kept, It was Enacted, That only Two Sorts of Bread should be made for Sale; viz. Wheaten, and Household, otherwise



otherwise Brown Bread; and that the Household should always be sold One Fourth less than the Wheaten.

This will appear by consulting the Assize Table in any one Article of the Price of the Bushel of Wheat and Baking; by which it will also be seen, that the Quantity or Weight of Bread required to be delivered to the Public, by the Bakers, from a Bushel of Wheat, *Winchester* Measure, by this Act, is 52 Pounds 2 Ounces, calculating One Half thereof to be Wheat-en, and the other Half Household.

For Instance: When the Price of Wheat and Baking is 7 Shillings, One Peck and a Half of Wheaten, and One Peck and a Half of Household Bread under this Article, which together will weigh 52 Pounds 2 Ounces will pay the Baker the Price of the Bushel of Wheat, and the 18 Pence *per* Bushel for the Magistrates Allowance (at *London*) for his Labour, Charges, Livelihood, and Profit; *viz.*

	Weight.		Price.	
	lb.	oz.	s.	d.
One Peck Loaf of Wheaten Bread	17	6	2	8
One Half Peck Loaf of Ditto	8	11	1	4
One Peck Loaf of Household Bread	17	6	2	—
One Half Peck Loaf of Ditto	8	11	1	—
	<hr/>		<hr/>	
	52	2	7	—
	<hr/>		<hr/>	

And the same will appear, as far as Fractions will allow, if the Assized Bread, under the said Article of Wheat and Baking, be examined; *viz.*

#### W H E A T E N B R E A D.

	lb.	oz.	dr.	lb.	oz.	dr.
One 18 Penny Loaf	9	12	7	22	2	15
One 12 Penny Loaf	6	8	4			
One 12 Penny Ditto	6	8	4			

H O U S E -



## HOUSEHOLD BREAD.

	lb.	oz.	dr.		lb.	oz.	dr.
One 18 Penny Loaf	13	—	9	}	30	6	11
One 12 Penny Ditto	8	11	1				
One 12 Penny Ditto	8	11	1				
—					<hr/>		
Pence 84 or Seven Shillings					53	3	10
—					<hr/>		

And the Assize of Bread under this Act is ordered to be set from the Middle Price of Wheat, and the Magistrates are empowered, as they were under the 8th of Queen *Anne*, upon setting the Assize, to add such a Sum to the Price of the Bushel of Wheat, as they shall deem sufficient for the Bakers Charges, Labour, Pains, Livelihood, and Profit.

In the Year 1768, it was contended, that this Statute of the 31st of *George* the Second was less beneficial to the People than that of the 8th of Queen *Anne*, and a Committee of the honourable the House of Commons were appointed to enquire into the Laws relating to the Assize of Bread; but no Alterations were made in them, in Consequence of the Deliberations of this Committee.

The Dearness of Corn in the Year 1772, occasioned His Majesty, out of His paternal Goodness and Compassion, to signify to both Houses of Parliament, That he was persuaded, their Attention would not be wanting, as far as human Wisdom would admit, to alleviate the Distress of the Poor; and that they could not gratify him more, than by calling upon Him for his Concurrence, in whatever might contribute to the Welfare and Happiness of His People. In consequence of which, a Committee of the honourable the House of Commons was again appointed, to examine into the Laws relating to the Assize of Bread: And upon their Report, an Act was passed in that Session, by which a Middle Sort of Bread (similar to the Wheaten Bread under the

D

Act



Act of the 8th of *Queen Anne*) was resumed, under the Name of Standard Wheaten Bread, which was to be made of the Flour of Wheat, that, without any Mixture or Division, was to be the whole Produce of the Grain, the Bran or Hull excepted, and to weigh Three Fourth Parts of the Wheat from which it should be made; and the said Bread was to be sold at One Eighth Part less than the Wheaten Bread in the aforefaid Act of the 31st of *George* the Second, or one Eighth more than the Household Bread in that Act. And the Weight of Standard Wheaten Bread, which is required to be delivered to the Public from a Bushel of Wheat, is Fifty-two Pounds Two Ounces.

Upon a Review of the several Acts before mentioned, the Weight of Bread, which the Bakers were by them respectively required to deliver to the Public, from a Bushel of Wheat, appears to be as follows; *viz.*

Under what Act.	Weight of Bread, Avoirdupoize, from a Bushel of Wheat.		
	lb.	oz.	dr.
51st <i>Henry</i> III.	51	2	2
8th <i>Queen Anne</i>	52	2	0
31st <i>George</i> II.	52	2	0
13th of His present Majesty	52	2	0

From whence it may be observed, that the Bakers were not required, by the Act of *Henry* the Third, to deliver so much Bread from a Bushel of Wheat, as they have been obliged to do by the Acts that have been made since. Yet it is plain (as is humbly apprehended) that a Bushel of Wheat, at the Time of making the said Act of *Henry* the Third, did



did produce more Bread than Fifty-two Pounds Two Ounces, which is the Quantity the subsequent Acts have required to be delivered to the Public. And perhaps, the Persons who framed the Acts of the Eighth of *Queen Anne*, and the Thirty-first of *George* the Second, by not requiring more than Fifty-two Pounds Two Ounces of Bread from a Bushel of Wheat, might have some View to the Two Loaves for Advantage, which (together with the Bran) the Act of the 51st of *Henry* the Third expressly says they would gain upon every Quarter of Wheat, more than by the Assize Table they were obliged to deliver to the Public.

But whether this Surmise be well founded or not, is not very material; for it is very certain, that the Flour from a Bushel of Wheat will, on an Average, produce more Bread than Fifty-two Pounds Two Ounces. It is not intended, however, to draw any Inference from thence to the Prejudice of the Bakers. The Laws have always considered them as the sole Agents to the Public for the manufacturing of Wheat into Bread, and at the same Time taken all imaginable Care that they should not suffer, but, on the contrary, should be at all Times, sufficiently paid for working for the Community. For if Wheat be ever so dear, they are sure to be paid the Market Price of it, in the Price of the Bread. And in that Price they also receive the Magistrates Allowance, which not only includes a Reimbursement of the Charges of grinding and dressing the Wheat into Flour, but of all other Charges of manufacturing it into Bread, and a Consideration likewise for their Pains, Labour, Livelihood and Profit. And as the Assize of Bread is liable to be altered, whenever the Price rises or falls Three Pence in a Bushel; this Circumstance renders it needless for them to employ large Capitals, and secures them from being injured from the Fluctuation of Markets, unless they will lay in large



Stocks of Wheat upon Speculation, which this Variation of the Assize is evidently calculated to prevent, and render unnecessary.

In order to render this Matter the more plain, I have endeavoured, by the State or Account marked (a), in the Appendix, to shew how the Case would stand with the Baker at *London*, if he were to buy his Wheat, and bolt it into Flour, and bake and sell Wheaten and Household Bread, under the Act of the Thirty-first of *George* the Second, at the present Assize of Bread at *London*, which is set from Wheat and Baking, at Six Shillings and Six Pence *per* Bushel.

And by another Account, marked (b) in the Appendix, I have endeavoured to shew the like with respect to Standard Wheaten Bread, under the Act of the Thirteenth of His present Majesty.

And it is humbly apprehended that it will appear from the said Accounts, that if the Bakers were to carry on their Business according to the Tenor and Design of the Laws; that is, by purchasing of Wheat, and dressing it into Flour, which was the Method in many People's Memory; they might furnish the Public with good and genuine Bread, of the respective Sorts required by the said Acts, and be paid what the Legislature designs they should receive for their Pains, Labour, Livelihood, and Profit.

But the Millers (who, till within these late Years, had no other Part, from Time immemorial, in the manufacturing of Wheat into Bread, than the grinding the Wheat into Meal for the Bakers) are now for the most Part become Purchasers of Wheat, and Dressers of it into Flour, for Sale, upon their own Accounts; and as they are not bound, by Law, to dress Flour of such Sorts as are proper for making the respective Kinds of Bread required by the Statutes



tutes now in Force, nor obliged to sell the Flour which they do dress, in Proportion to the Market Price of Wheat; the Bakers, who are obliged to buy their Flour of the Mealman, cannot purchase the same so as to enable them to bake and sell any of the Sorts of Bread, required to be made by the said Statutes (except the Wheaten Bread under the 31<sup>st</sup> of *George* the Second) and to receive the Magistrates Allowance, over and above the Prices which they must give for their Flour.

The Account marked (c) in the Appendix, it is apprehended, will make this very clear, with respect to the Act of the Thirty-first of *George* the Second. And it is presumed, that the Account marked (d) in Ditto, will do the same with Regard to the Statute of the Thirteenth of His present Majesty.

And as the Mealman's Profit is a Point which it greatly concerns the Community to form an Idea of, the Account marked (e) in the Appendix, calculated from the present Market Prices of Flour, and Average Price of Wheat, according to the present Assize of Bread, is humbly apprehended to be a very near Estimate thereof.

When the several Particulars before mentioned are considered, it is presumed that the Public can be no longer at a Loss to know, why so little Household Bread was made under the Act of the Thirty-first of *George* the Second: Or why the Expectations of the Legislature have not been answered, with regard to a Supply of Standard Wheaten Bread, under the Act of the Thirteenth of His present Majesty.

For the Millers, contrary to the ancient Usage and Custom of the Realm, having stepped in between the Growers of Corn and the Bakers, and being under no Restraint, by Law, to sell the same at such Prices as to correspond with the Market Price of Wheat, the Profits arising to them in this Business must unavoidably occasion an Increase of Expence upon



upon Bread ; which must fall upon the Community, in one Shape or other. And the Way in which this Encroachment on the Bakers Trade has hitherto operated, has been by depriving the People of the Advantage of being furnished with the Proportion of Household Bread intended by the Legislature.

And it will doubtless be a Matter of great Surprise to the Generality of the People, when they come to find what an immense Sum this Loss has amounted to : For if one Fourth Part of the Proportion of Household Bread should be supposed to have been made, during the Continuance of the Act of the Thirty-first of *George* the Second ; yet, under this Supposition, the Cities of *London* and *Westminster* will be found upon a moderate Computation, to have suffered (together) the annual Loss, upon an Average of One Hundred and Thirty-five Thousand Pounds ; and the People of the other Parts of *England* and *Wales*, who are computed to eat Bread made of Wheat, the yearly Loss of Four Hundred Twenty-one Thousand Eight hundred and Seventy-five Pounds : So that, within the Space of Sixteen Years, which is the Time the said Act has been in Force, the Injury which hath arisen to the Community by its not being complied with, appears, by the State marked (f) in the Appendix, to amount in the whole to Eight Millions Nine Hundred and Ten Pounds. And what makes it infinitely more to be regretted, is, that this enormous Sum has, for the most Part, been forced out of the Pockets of the working and industrious Poor, by obliging them to purchase Wheaten Bread, through the Want of Household or *brown* Bread having been made to supply them, as was intended by the Legislature.

In order to prevent so capital an Evil for the future, it is humbly apprehended, that if the Bakers are to continue under the Necessity of buying their Flour from the Mealmen, the latter should be obliged by



by Law to dress Flour under the same Denominations as the respective Sorts of Bread, directed to be made by the Statutes now in Force, and no other; and be also obliged to sell the several Sorts of Flour at certain fixed Prices, to be governed by, and calculated from the Market Price of Wheat, in order to enable the Bakers that buy their Flour, to make and sell the respective Sorts of Bread, according to the Prices set from *Wheat* in the Assize Table.

It is likewise apprehended, that the Law should describe what Sort of Flour each Sort of Bread should be made of; and also in what Manner each Sort of Flour should be dressed: By which Means, the Public would know the Quality of the Bread they ought to have for their Money, and be enabled to procure Redress, if imposed upon therein, as they can do at present if defrauded in Weight, by the Help of the Assize Table.

To explain this more fully, it is necessary to observe, that the following are the Sorts of Flour that have hitherto been generally dressed from Wheat, by the Mealmen; *viz.*

Households.

Seconds.

Thirds.

Middlings.

Which said Sorts of Flour are dressed through the different Sorts of Bolting Cloths following; *viz.*

*Dressed through*

The Households	—	a 21 Shilling Cloth.
Seconds	—	an 18 Shilling Cloth.
Thirds	—	a 16 Shilling Cloth.
Middlings	—	a 13 Shilling Cloth.

But as the Acts of Parliament now in Force, require the under-mentioned Sorts of Bread to be made; *viz.* Wheaten Bread, Standard Wheaten Bread, and Household, or *brown* Bread; it is humbly apprehended, that no Flour should be allowed to be fold,



fold, but under the proper Denominations for making those Sorts of Bread : That is to say :

	<i>For making</i>
Best Wheaten Flour	— Wheaten Bread.
Standard Wheaten Flour	— Standard Wheaten Bread.
Household Flour	— Househ. or <i>brown</i> Bread.

And that their respective Qualities, and Manner of Dressing, should be ascertained and described, as shall be found right by Experiments : And that the Nature and Texture of the Bolting Cloths through which it may be found proper the said Sorts of Flour should be dressed, should be particularly and clearly described.

And as many People have, of late, come into the Method of dressing of Flour through Bolting Machines made of Wire, instead of Cloths, it will be necessary also to ascertain the different Degrees of Fineness the Wire-work of such Machines must be of, to dress Flour of the Denominations before mentioned.

It is also apprehended, that all Millers should be obliged to grind Wheat for the Bakers, when required, at the accustomed Toll, or Price ; and likewise for all private Persons ; as it might, among other Advantages, revive a Custom of the utmost Consequence to the industrious labouring People employed in Agriculture ; who formerly used to be supplied with Wheat from the Farmers for whom they worked, which being ground at the Mill, they afterwards dressed into Flour, through Sieves at Home, and baked it into Bread there ; by which Means it came to them at a much cheaper Rate than buying it of the Bakers ; or by purchasing Flour of Mealmen, or Bakers, to bake into Bread themselves.

*Hen. Pelham.*



## THE APPENDIX.

(a).

An ACCOUNT, shewing on what Terms a Baker at *London* (buying his Wheat) may make and sell Wheaten and Household or *brown* Bread, under the Act of the 31<sup>st</sup> *Geo.* the 2<sup>d</sup>, according to the present Assize of Bread set at *London*, from Wheat and Baking, at 6 *s.* and 6 *d.* per Bushel.

*N. B.* The Magistrates Allowance at *London* to the Baker, is 18 *d.* on a Bushel of Wheat; so that when they set the Assize of Bread from Wheat and Baking at 6 *s.* and 6 *d.* per Bushel, they must deem the Average Market Price of Wheat to be 5 *s.* per Bushel, or 40 *s.* per Quarter: On which Principle the Account will stand as follows; viz.

The Baker	Dr.	Per Contra	Cr.
	£. s. d.		£. s. d.
To 5 Quarters of Wheat, at 40 <i>s.</i> per Quarter -	10 0 0	By 60 peck Loaves of Wheaten Bread, at 2 <i>s.</i> 6 <i>d.</i> each -	7 10 0
To the Magistrates Allowance to the Baker for grinding and dressing, and all other Charges, and for his Pains, Livelihood, and Profit, at 18 Pence per Bushel, or 12 <i>s.</i> per Quarter of Wheat -	3 0 0	By 60 peck Loaves of Household Bread, at 1 <i>s.</i> 10 <i>d.</i> each -	5 10 0
	<u>£. 13 0 0</u>		<u>£. 13 0 0</u>

Memorandum.



*Memorandum.* The above 120 Peck Loaves are all that the Law requires the Baker to deliver, under the Act of 31st Geo. the 2d, from 5 Quarters or 40 Bushels of Wheat; and they pay him for his Wheat, and the Magistrates Allowance of 12 Shillings *per* Quarter for grinding and dressing, &c. and for his Pains, Livelihood, and Profit.

To this Allowance of 12 Shillings *per* Quarter, must be added the Value of the Bran and Pollard, which at this Time is at least 3s. 11d. *per* Quarter.

Besides this, it must be observed, that 42 Pounds of Flour will make the whole Quantity of Bread required to be delivered to the Public from a Bushel of Wheat: So that whatever Quantity of Flour the Wheat may yield above 42 Pounds from a Bushel, the Surplus must be considered as an additional Profit to the Baker, as it enables him to make a proportionable Quantity of Bread from a Bushel of Wheat, more than the Law requires of him.

If only Two Pounds and a Quarter of Flour extraordinary were to be obtained from a Bushel of Wheat, the Value thereof in Bread at this Time would be something above 2s. on a Quarter of Wheat, after deducting Six-pence for every Peck of Bread for the Magistrates Allowance to the Baker



(b).

An ACCOUNT shewing on what Terms a Baker at *London* (buying his Wheat) may make and sell Standard Wheaten Bread, under the Act of the 13th of his present Majesty, according to the present Assize of Bread at *London*, set from Wheat and Baking at 6s. 6d. per Bushel.

*N. B.* The Magistrates Allowance at *London* to the Baker, is 1s. 6d. per Bushel; so that when they set the Assize of Bread from Wheat and Baking at 6s. 6d. per Bushel, they must deem the Average Market Price of Wheat to be 5s. per Bushel, or 40s. per Quarter: On which Principle the Account will stand as follows; viz.

The Baker ——— Dr.	Per Contra ——— Cr.
£. s. d.	£. s. d.
To 5 Quarters of Wheat, at 40s. per Quarter - 10 0 0	By 120 Peck Loaves of Stan- dard Wheaten Bread, at 2s. 2d. each, being $\frac{1}{8}$ th less than the Wheaten Bread under the Act of the 31st Geo. the 2d, according to the present Assize - - 13 0 0
To the Magi- strates Allow- ance to the Ba- ker for grind- ing, dressing, and all other Charges, and for his Pains, Livelihood, and Profit, at 18d. per Bushel, or 12s. per Quar- ter of Wheat - 3 0 0	
£. 13 0 0	£. 13 0 0

Memorandum.



*Memorandum.* The above 120 Peck Loaves are all that the Baker is required to deliver, under the Act of the 13th of his present Majesty; and they pay him for his Wheat, and the Magistrates Allowance of 12 Shillings *per* Quarter for grinding and dressing, and for his Pains, Livelihood, and Profit.

To this Allowance of 12 Shillings *per* Quarter, must be added the Value of the Bran and Pollard, which at this Time is at least 3s. 11d. *per* Quarter.

Besides this, it is to be observed, that 42 Pounds of Flour will make the whole Quantity of Bread required to be delivered to the Public from a Bushel of Wheat: So that whatever Quantity of Flour the Wheat may yield above 42 Pounds from a Bushel, the Surplus must be considered as an additional Profit to the Baker, by enabling him to make a proportionable Quantity of Bread from a Bushel of Wheat, more than the Law requires of him.

And if only Two Pounds and a Quarter of Flour extraordinary were to be obtained from a Bushel of Wheat, the Value thereof in Bread at this Time would be something above Two Shillings on a Quarter of Wheat, after deducting 6d. for every Peck of Bread for the Magistrates Allowance to the Baker.



(c).

An ACCOUNT, shewing on what Terms a Baker at *London* (if he is obliged to purchase his Flour) can bake and sell Wheaten and Household Bread, under the Act of the Thirty-first of *George II.* at the present Market Prices of Flour, and Affize of Bread, set from Wheat and Baking at Six Shillings and Sixpence *per Bushel*; *viz.*

The Baker Dr.	Per Contra	Cr.
To make 60 Loaves of Wheaten Bread.		
<i>£. s. d.</i>		<i>£. s. d.</i>
To 60 Peck Loaves of Wheaten Bread, at 2 s. 6 d. each, according to the above Affize —	By 840 lb. of Households, or finest Flour, at 40 s. <i>per Sack</i>	6 0 0
7 10 0	By the Baker's Profit —	1 10 0
<u>£. 7 10 0</u>		<u>£. 7 10 0</u>
To make 60 Loaves of Household Bread.		
<i>£. s. d.</i>	lb.	<i>£. s. d.</i> <i>£. s. d.</i>
To 60 Peck Loaves of Household Bread, at 1 s. 10 d. each, according to the above Affize —	By 240 of Households, at 40 s. <i>per Sack</i> —	1 14 3 $\frac{1}{4}$
5 10 0	215 of Seconds, at 37 s. <i>per Sack</i> —	1 8 4 $\frac{3}{4}$
	96 of Thirds, at 34 s. <i>per Sack</i> —	11 7 $\frac{1}{2}$
	289 of Middlings, at 25 s. <i>per Sack</i> —	1 5 9 $\frac{1}{2}$
	840	
	By the Baker's Profit —	0 9 11
<u>£. 5 10 0</u>		<u>£. 5 10 0</u>

N. B. In the Prices of the above 120 Loaves, are included the Magistrates Allowance of Twelve Shillings *per Quarter* on Wheat, or Ten Shillings *per Sack* on Flour.

Memorandum.



*Memorandum.* It appears by the foregoing Account, that the Baker can purchase Flour at the present Market Price, to make Wheaten Bread, and receive the Price set thereon by the Assize, besides the Magistrates Allowance for his Charges, Pains, Livelihood and Profit :

But that he cannot buy Flour to enable him to make Household Bread, so as to receive One Third even of the Magistrates Allowance, over and above the Price he must give for the Flour.

*N: B.* £. 5. 0 s. 2 d.  $\frac{1}{2}$ . for 840 Pounds of Flour for Household Bread, is at the Rate of 33 s. 4 d.  $\frac{3}{4}$ . per Sack of 280 Pounds.

(d). An



(d).

An ACCOUNT, shewing on what Terms a Baker at *London* (who is obliged to buy his Flour can bake and sell Standard Wheaten Bread, under the Act of the Thirteenth of his present Majesty, at the present Market Prices of Flour, and Aflize of Bread, at *London*, set from Wheat and Baking at Six Shillings and Six-pence *per* Buſhel.

The Baker — D<sup>r</sup>.

*Per Contra.*

C<sup>r</sup>.

£. s. d.

£. s. d.

To 120 Peck Loaves  
of Stand. Wheat-  
en Bread, at 2 s.  
2d. each, accord-  
ing to the above  
Aflize — 13 0 0

By 1,680 Pounds, or 6 Sacks of 280 Pounds each, of Flour (being the Proportion to make 120 Peck Loaves of Bread, at the Rate of 14 Pounds of Flour to a Peck Loaf) of the several Sorts, Quantities, and Prices, described in the afore-  
going Account, marked (c); *viz.*

Pounds *per* Sack. £. s. d.

Households,

1080 at 40 s. 7 14 3  $\frac{1}{4}$

11 0 1  $\frac{1}{4}$

Seconds,

215 at 37 s. 1 8 4  $\frac{1}{4}$

Thirds,

96 at 34 s. 0 11 7  $\frac{1}{4}$

Middlings,

289 at 25 s. 1 5 9  $\frac{1}{2}$

Which being thrown together, compute the Whole Flour of the Wheat, and amount to

By the Baker's Profit

1 19 10  $\frac{1}{2}$

£. 13 0 0

£. 13 0 0



*Memorandum.* 120 Peck Loaves of Bread are all that the Baker is required by Law to deliver from Five Quarters of Wheat, or 1,680 Pounds of Flour. But it is plain, from the foregoing Account, that the Baker cannot buy 1,680 Pounds of the Whole Flour of the Wheat, or Standard Wheaten Flour, at the present Market Prices, on such Terms as to receive the Magistrates Allowance for Baking, over and above the Price he must give for the Flour: For, instead of £. 3. he will receive only £. 1. 19s. 10d.  $\frac{3}{4}$ .

(e.) A COM-



(e.)

**A COMPUTATION** of the Mealman's Profit, at the present Market Prices of Flour at *London*, and the Average Market Price of Wheat, according to the present Affize of Bread.

*N. B.* The Magistrates Allowance at *London* to the Baker, is One Shilling and Six-pence on a Bushel of Wheat; and as the present Affize of Bread is set from Wheat, and Baking as Six Shillings and Six-pence *per* Bushel, they must deem the Average Price of Wheat to be 5*s.* *per* Bushel, or 40*s.* *per* Quarter: On which Principle the Account will stand as follows: *viz.*

The Mealman — Dr.	Per Contra.	Cr.
£. s. d.	lb .	£. s. d.
To 5 Qrs. of Wheat, at 40 <i>s.</i> <i>per</i> Quarter - 10 — —	By 1080 of Households, or finest Flour, at 40 <i>s.</i> <i>per</i> Sack - -	7 14 3 $\frac{1}{4}$
To grinding and dressing the said Wheat, at 3 <i>s.</i> <i>per</i> Quarter - — 15 —	By 215 of Seconds, at 37 <i>s.</i> <i>per</i> D <sup>o</sup> . - - -	1 8 4 $\frac{3}{4}$
To Mealman's Profit - - 1 4 8	By 96 of Thirds, at 34 <i>s.</i> <i>per</i> D <sup>o</sup> . - - -	11 7 $\frac{1}{2}$
	By 289 of Middlings, at 25 <i>s.</i> <i>per</i> D <sup>o</sup> . - - -	1 5 9 $\frac{1}{2}$
	1680	
	By the Bran and Pollard from Five Quarters of Wheat, at 3 <i>s.</i> 11 <i>d.</i> <i>per</i> Quarter - - -	19 7
£. 11 19 8		£. 11 19 8
	E	<i>N. B.</i> The



*N. B.* The before-mentioned Computation is made upon the Supposition, that the Produce of Flour is only 336 Pounds from a Quarter of Wheat, or 42 Pounds from a Bushel; which last Quantity is the Proportion to make Three Pecks of Bread; which is all that the Acts of the 31st *George* the Second, and the 13th of his present Majesty, require to be delivered from a Bushel of Wheat.

But it must be observed, that Wheat in general will yield more than 42 Pounds of Flour from a Bushel; and whatever the Surplus may be, must be considered as an additional Profit to the Mealman.

And if only Two Pounds and a Quarter of Flour extraordinary were to be obtained from a Bushel of Wheat, the Value thereof at this Time would be Two Shillings. and Four-pence Farthing upon a Quarter of Wheat.

(f).

A COMPUTATION of the Loss, which hath arisen to the Community, by the Proportion of Household Bread not having been made, that was intended by the Act of the 31st of *George* II.

BY the said Act, the Flour from the Wheat, is calculated to be made Half into Wheaten, and Half into Household Bread; the latter to be sold One Fourth cheaper than the former.

The Cities of *London* and *Westminster* are computed to consist of 600,000 People; and every Person is calculated to consume One Quarter of Wheat in a Year, in Bread: So that the yearly Consumption of Wheat in the said Cities has been estimated at 600,000 Quarters.

By the Assize Table in the said Act, One Bushel of Wheat is computed to produce Three Peck Loaves of



of Bread : Consequently, a Quarter of Wheat is deemed to make Twenty-four Peck Loaves of Bread.

Therefore, 600,000 Quarters of Wheat should produce 7,200,000 Peck Loaves of Wheaten, and 7,200,000 Peck Loaves of Household Bread : And as the Assize hath not been lower, upon an Average, during the Continuance of the said Act, than 1 s. and 11 d. for the Peck Loaf Wheaten, and 1 s. 5 d. for the Peck Loaf Household, the Public, from 600,000 Quarters of Wheat, ought to have been supplied yearly with

	N <sup>o</sup> .	s. d.	£.
Peck Loaves, Wheaten	7,200,000	at 1 11 each	690,000
Peck Loaves, Household	7,200,000	at 1 5 each	510,000
	<u>14,400,000</u>		<u>£. 1,200,000</u>

It is, however, generally acknowledged, that the People have been supplied with but very little Household Bread under that Act : But if it should, for Argument Sake, be supposed, that One Fourth Part of the Proportion thereof (*viz.* 1,800,000 Peck Loaves) hath been made yearly ; yet, under this Supposition, the Inhabitants of the said Cities, by being obliged to purchase 5,400,000 Peck Loaves of Wheaten Bread, instead of being furnished with the remaining Three Parts of 7,200,000 Peck Loaves of Household Bread, will be found to have suffered an annual Loss of £. 135,000, as *per* the following Account ; *viz.*



A COMPUTATION of the Expence of  
Bread for One Year, for the Cities of *London* and  
*Westminster*.

Peck Loaves		s. d.	£.
To 7,200,000	of Wheaten Bread	at 1 11	690,000
To 5,400,000	{ of Ditto, purchased for want of the due Quantity of Household Bread, being made.	at Ditto	517,500
To 1,800,000	{ of Househ. Bread, supposed to be made.	at 1 5	127,500
<hr/>			
14,400,000			£. 1,335,000

The said Cities, from 600,000 Quarters  
of Wheat, ought to have been furnished  
with 7,200,000 Peck Loaves Wheaten,  
and with Ditto Number Household;  
which, at the above Prices, would have  
come to ————— 1,200,000

Loss to these Cities, by not being furnish-  
ed with the due Proportion of Household  
Bread ————— 135,000

The rest of the People of *England* and *Wales*,  
who are computed to use Bread made of Wheat,  
are calculated to be in Number 3,750,000; and,  
supposing them to be circumstanced like those in  
*London* and *Westminster*, their Loss, by not being  
supplied with Household Bread, stated in the same  
Manner as for those Cities, must have amounted to  
£. 843,750 per Annum.

But



But as some Farmers, and other Persons in the Country, may probably have their own Wheat ground, and dreis the Flour at Home, and bake their own Bread, some Abatement of Course ought to be made on that Account : And, in order not to exaggerate Matters, let it be supposed that Half the said 3,750,000 People buy their own Wheat, and bake their own Bread ; which will reduce the Loss from £.843,750 to the yearly Sum of 421,875 ; and in such Case the Total computed Loss to the Community, by not being supplied with Household Bread, according to the Intention of the aforesaid Act of the 31 George the Second, will stand as follows ; viz,

	£.
Loss to the Cities of <i>London</i> and <i>Westminster</i> , for 16 Years, at £. 135,000 per Annum — — —	2,160,000
Loss to the People of the other Parts of <i>England</i> and <i>Wales</i> , for 16 Years, at £. 421,875 per Annum.	6,750,000
Total	<u>£. 8,910,000</u>

## I.

EXPERIMENTS made by T. Farrer,  
Esquire, *Layton Stone, Essex.*

Three Quarters Wheat, which, according to the present Method of dressing for Wheaten Bread, produce 60 Peck Loaves.

1773.		£.	s.
23d March.	3 Qrs. Wheat cost 55s. per Qr.	8	5
	Charges to the Mill, 1s. per Qr.	0	3
	Grinding and Dressing, 3s per Qr.	0	9

£. 8 17  
The



The above 3 Quarters produced	C.	qrs.	lb.	
	10	1	8	Flour.
		2	14	Bran.
By Grinding and Dressing	0	1	20	Waste.

Weight of the Wheat,	—	13	0	14
being at $6\frac{1}{4}$ Pounds <i>per</i> Bushel.				
				Peck Loaves.

Now the above 10 C. 1qr. 8lb. }  
 Household Flour, at 14 Pounds to } 82 8 Pounds:  
 the Peck Loaf, render — }

So that in 3 Quarters of Wheat there is gained,  
 in Aid of the Consumption of Bread, 22 Peck Loaves  
 and 8 Pounds

Three Quarters of Wheat, which, according to  
 the present Method of dressing for Wheaten Bread,  
 render 60 Peck Loaves.

1772.  
 30th March. 3 Qrs. Wheat cost 50s. *per* Qr. £. s.  
 Charges to the Mill, Dressing, 7 10  
 and Grinding 0 12  
 £. 8 2

The above Wheat produced	C.	qrs.	lb.	
	9	3	10	Flour.
		2	14	Bran.
	0	1	20	Waste.

Weight of the Wheat,	—	12	2	16
being at 59 lb. <i>per</i> Bushel.				

Peck  
Loaves.

Now the above 9 C. 3 qrs. 10 lb. }  
 Household Flour, at 14 Pounds to } 78 10 Pounds.  
 the Peck Loaf, render — }

So that in 3 Quarters of Wheat, at 59 Pounds *per*  
 Bushel, there is gained, in Aid of the Consumption  
 of Bread, 18 Peck Loaves and 10 Pounds.

Queen



Queen *Anne's* Wheaten Bread, produced at the honourable House of Commons, by *Thomas Farrer*, 15 November, 1772.

Made from Two Bushels of Meal, weighing Pounds. 112

Which produced,

Flour	_____	89 Pounds.
Bran	_____	21 Pounds.
Waste	_____	2 Pounds.
	_____	112

Peck  
Loaves.

The 112 Pounds, *Q. Anne's* Wheaten Bread, render, at 14 Pounds the } 6 5 Pounds.  
Peck \_\_\_\_\_

According to the present Mode of Dressing the Wheaten Bread, they would render no more than 5 Peck Loaves :

So that there is gained, in Aid of the Consumption of Bread, in Two Bushels *Queen Anne's* Wheaten Flour, which is the true Household Flour, 1 Peck Loaf 5 Pounds.

K.

NARRATIVE of the Proceedings and Experiments by *Sir George Young*, Baronet.

IN Pursuance of the Act of Parliament, passed the Last Session, empowering Justices of the Peace, and other proper Magistrates, to prohibit, for a limited Time, any *Bread* to be made of a finer Quality than that which was, in the Act, called *Standard Wheaten* ; the Justices of the Peace for the County of *Devon*, and the Magistrates of the County of the City of *Exeter*, resolved to issue a Prohibition



tion in Pursuance of the said Act; and, at the last *Michaelmas* Quarter Sessions, gave the necessary Orders accordingly; which Orders have been carried into Execution, and enforced from Time to Time, ever since.

The extensive County of *Devon*, though universally a Corn Country, and for the most Part of it well cultivated, being entirely an enclosed Country, except in the Neighbourhood of the Forests or Mountains of *Ex-Moor* and *Dartmoor*, is, notwithstanding, ill supplied with Flour; the Number of Meal Men, Flour Men, and Flour Mills, being but few, for particular Reasons; so that a great Part of the Corn grown within the County, is exported to the Counties from whence they are supplied with Flour; chiefly *Hampshire* and the *Isle of Wight*. The Sorts of Flour supplied from thence, at the Time of the Magistrates issuing the above Orders of Sessions, were what is called, *Firsts*, *Seconds*, and *Thirds*, with some *Middlings*. Upon issuing those Orders, the Bakers and others, throughout the County, directed their Correspondents to send them only the Flour proper for making the *Standard Wheaten* Bread, except such Flour as was still wanted for *Penny* and *Twopenny Loaves*, which were still allowed: These Directions were complied with, and in Consequence of them, the Flour sent was of the Sort called *Firsts*, and what was called by the Name of *Parliament Flour*, which turns out to be a Sort nearly corresponding to *Seconds*, though something inferior, but much superior to *Thirds*.

Thus the County was supplied with proper Flour, in Obedience to the Order of Sessions. Another Consequence soon followed: The Millers and Flour Men within the County changed their Bolting Cloths. At the Time of making the Order, the Bolting Cloths, at the several Flour Mills, were chiefly of  
the



the Sorts which were sold at *Exeter* for 16 s. 18 s. 20 s. 21 s. 22 s. and as far as 24 s; the general Run was about 21 s. Immediately upon the Orders being issued, these Cloths were changed for 14 s. Cloths, which were found to be the Cloths that would the nearest give the Flour which should weigh Three Fourths of the Bushel of Wheat without any Mixture, or other Division: The other Cloths were laid aside, and have continued so ever since. The Cloths thus adopted, instead of the former, were likewise found to contain by the Warp and Woof about 30 Threads by 32 in an Inch square. With these Cloths, the Millers and Flour Men, in general, dressed the Flour ready for the Use of the Bakers, in Compliance with the order of Session; but in some Parts it was not regarded.

At *Christmas* 1773, the Magistrates of the County of *Devon*, and of the County of the City of *Exeter*, renewed their former Order; at which Time the following Experiment was made at *Escott*, in Presence of Three Justices of the Peace, a Miller, who kept a Flour Mill, a Baker and a Farmer; and it was intended to try what Sort of Bread would be made, in pursuance of the Act of Parliament, and what Quantity of Flour might be produced from a Bushel of Wheat, dressed in a proper Cloth pursuant to the Order of Session.

A Bushel of Wheat was taken from some Tithe Corn grown in the Neighbourhood, and collected in Kind; which, being the mixed Produce of several Sorts of Land, was chosen as the fair Test of the Produce of the Crop: The Bushel of Corn, being Eight Gallons, weighed 59 Pounds 8 Ounces, (*Troy*). After being weighed, it was sent to the Mill to be ground; and, in order to have the full Weight, the Miller was paid in Money for his Toll. *N. B.* The usual Price for grinding a Bushel of Wheat there, was



was 4 *d.*; but, in order to encourage the Miller to do Justice he had 6 *d.* given him. The Corn thus ground, was returned back with little or no Waste, that could be perceived, at least none to any Amount: It was then dressed through a 14 *s.* Cloth or Sieve; and the Produce in Flour, exclusive of the coarse Pollard and Bran, was exactly 44 Pounds 10 Ounces, being Three Fourths of the Weight of the Bushel of Wheat, or very near it.

This 44 Pounds 10 Ounces of Flour was then made up into Dough, mixing with it Water, Salt, and Yeast; and the Dough was baked into Four Loaves, as nearly equal in Weight as possible; and the Whole Flour, thus being made into Dough, being suffered to ferment, and rise, by the Ingredients mixed with it, was found to weigh, before baking, nearly 70 Pounds; after baking, the Dough thus formed into Bread, was decreased in its Weight again, so that the Four Loaves of Bread weighed exactly the same Weight as the whole Bushel of Corn before it was ground.

*N. B.* In making the Dough, a Quart of good Yeast was used, and a proper Quantity of Salt and Water. It is likewise observable, that the better the Quality of the Corn or Flour, the more Water must be used to make the Dough.

The Bread produced by this Experiment was an exceeding good, white, pleasant, and nutritious Bread; and what is remarkable, kept longer and better than the common Sort of Bread bought of the Baker.

After this, the coarse Flour and Pollard, or Bran, weighing 14 Pounds 10 Ounces, was, out of Curiosity, dressed again, and reduced to something more than 9 Pounds, leaving nothing but the plain Bran: This coarse Flour being likewise made into Dough, and baked, produced a Loaf of Bread, weighing about 13 Pounds 8 Ounces; and the Bread produced  
by



by this Experiment was a very good brown Bread, though coarse.

N. B. The Miller said, That the Bran which remained, was worth about 4 *d.* at the Country Market.

From these Experiments it certainly appeared, That the Standard Wheaten Bread, made of Flour dressed through a 14 Shilling Cloth, is an exceeding good, wholesome, and nutritious Bread; much superior to what is commonly used by the poorer Classes of People in most Towns and Cities, and even than in the City of *London*, and far beyond what is used by the poor People in the Country.

It likewise appeared, That the Standard Wheaten Bread cannot be ascertained, without the Concurrence of the Miller and Flourman, as well as the Baker.

It likewise appeared, and was proved, by the Experience of the Gentlemen present, and confessed by the Miller who attended the Experiments, That a greater Proportion of the real Produce of a Bushel of Corn was rendered applicable to the Purpose of Food, than any other Way; and the Miller, in particular, said, That he had not had Ocasion to buy so much Corn, by one Half, since the Order of Session, which had then continued from *Michaelmas* to *Christmas*, to supply the same Number of Customers, as he did before.

It likewise appeared, That the Baker, or even any poor Person, might, by the Assistance of a Sieve made of a Fourteen Shilling Cloth, obtain a Flour fit to make the *Standard Wheaten Bread*, if they could but oblige, or prevail on the Miller to grind the Corn; there being no Difficulty in the Process. Indeed it likewise appeared, upon Enquiry That the Generality of the poorer Sort of People, in that Part of the Kingdom, did, when they could, get their Corn ground at the Grist Mills, and then dress-  
ed



ed the Whole through a Cloth, or Sieve, which did not divide, or separate, above Eight Pounds of coarse Pollard and Bran from the Bushel, and thus made a good Brown Bread; and if the Use of Hand-Mills were established, this would be more practised in the Country.

It likewise appeared, That any given Quantity of Flour did, in general, gain One Fourth of its Weight upon being made into Bread: So that a Flour weighing Three Fourths of a Bushel of Corn, will bake into exactly the Weight of the whole Bushel; and Flour which weighs little more than Half the Bushel of Corn, will make into Bread which will weigh Three Fourths of the Bushel: Supposing, therefore, the Bushel of Corn to weigh (as it may fairly be stated to do) about Sixty Pounds, Forty-five Pounds Weight of Flour will make just Sixty Pounds Weight of Bread; and about Thirty-four Pounds Weight of Flour will make just Forty-five Pounds Weight of Bread; and so in Proportion for any greater or less Quantity, supposing the Bread to be made of *Standard Flour*, that is, of Flour being the whole Produce of the Corn. Thus too it appears, that if a Bushel of Corn weighs Sixty Pounds, and the Price is Forty Shillings *per Quarter*, that is exactly One Penny *per Pound*; and, if *Standard Wheaten Bread* were then sold for One Penny *per Pound*, likewise, Forty-five Pounds Weight of Flour, made into Bread, would exactly produce the Value of the Bushel, or Quarter, of Corn, with a very considerable Profit to the Miller and Baker.

Upon the Whole, the Proceedings of the County of *Devon* and City of *Exeter*, followed since by other Counties, prove clearly, That in Times of Scarcity or Dearness, of Corn, it may be extremely proper for the Magistrates to enforce the Use of the *Standard Wheaten Bread*; and that they should be

*requir-*



*required* in such Cases to enforce it : But this cannot be enforced, without putting the Miller, Mealman, and Flourman, under proper Regulations ; who, for want of it, have stood between the Bounty of Heaven and the poor Consumer ; nor is there the least Doubt, but the loss to the People, thereby, in Food and Treasure, has been exceedingly great. The experiments as above related, tend likewise to show, that the Flour may be ascertained, and the Bread made, with very great Ease and Advantage to private Families, and with very sufficient Profit and Encouragement both to Miller and Baker ; but that it is unjust to the Baker to leave him, as he is at present, at the Mercy of the Miller, by a partial Regulation ; and that the Provisions of the late Act of Parliament cannot completely benefit the Consumer, without extending them to the Miller, Mealman, and Flourman, as well as to the Baker.

---

L.

## EXPERIMENTS and OBSERVATIONS on Flour and Bread, delivered to the Committee by Dr. *Irving*.

**T**O grind Wheat into Flour with the greatest Advantage, the Mill-Stones should make about Sixty Revolutions in a Minute : If faster, the Stones acquire too much Heat, and give a burnt Taste to the Meal : If slower, a Part of it adheres firmly to the Bran or Husk, and cannot be separated in the Bolting.

Flour, when kept some Time, evaporates a Part of its Moisture, becomes less adhesive and clammy, loses somewhat of its agreeable Taste, and imbibes a greater Portion of Water in the making of it into Dough :



Dough: The Bread of it appears smoother in the Cutting, whiter in the Grain, dries sooner, and becomes more crumbly, than the Bread of new Flour. These Reasons induce the Baker to prefer old Flour to new in the making of Bread.

The Yeast of Porter does not raise Bread so perfectly as that produced from Small Beer; besides, it is very bitter to the Taste: The Baker, therefore, in *London*, instead of using a sufficient Quantity of Yeast for the leavening of his Bread, mixes only a small Portion of it with Flour and Water, made to the Consistence of a Syrup, called *Spunge*; which, when fermented, is added to the Flour; and being worked up together into Dough, the whole Mass is suffered to ferment.

This Method, however, of leavening the Dough, is by no Means so good as that in which Yeast only is used; as it gives the Bread a sour Taste, frequently perceptible in that of *London*. I find by Experiment, that Three Pounds and Half of Flour, kept a Year in a dry Place, requires Two Pounds of Water to make it into Dough, and loses in the baking into Bread Ten Ounces; but from the variable Age, Dryness and Quality of the Flour, with the indeterminate Degree of Kneading and Baking, it is impossible to ascertain the exact Proportion of Water in all Cases; nor is any uniform Proportion ever observed by the Bakers.

Flour made from heated or damaged Corn does not thoroughly mix with Water, so as to form a perfect Dough, unless a small Portion of Alum be added. In this Case, the Baker is induced to use it; as he may be likewise when the Water with which he makes the Dough is very muddy; Alum having the Property of purifying it. I find, however, by the Experiment of dissolving the Salt from Bread by Water, and adding to the Solution an Alkali, (which would discover the Earth of Alum by Precipitation)



tation) that the Bakers in *London* very seldom use Alum; but substitute hard Pump Water, with an extraordinary Quantity of common Salt; which, in some Measure, answer their Purpose, in the working of damaged Flour.

Flour or Bread, freed of its Salt, being burnt in a Crucible, leaves behind only a very small Portion of Earth; but if Chalk, Lime, Whiting, Bone Ash, or any calcareous Substance, be mixed with either, these foreign Ingredients will remain unconsumed in the Crucible, and the Quantity may be perfectly ascertained.

The Mixture of these Ingredients with Flour or Bread may also be discovered, by adding Spirit of Salt well diluted with Water; and their Quantity known by Precipitation with a fixt Alkali. The following Experiments were made with a View of ascertaining these Facts.

#### EXPERIMENT 1st.

One Pound of fine Flour burnt in a Crucible, left behind Twenty-eight Grains of Earth; of which Nineteen were sandy Matter; the Remainder soluble in an Acid.

#### EXPERIMENT 2d.

One Pound of Bread of a Quartern Loaf, freed of its Salt by Water, and treated in the same Manner, gave Forty-three Grains; of which Twenty-nine were sandy Matter; the rest soluble by an Acid.

#### EXPERIMENT 3d.

One Pound of Bread added to Spirit of Salt, sufficiently diluted with distilled Water, gave scarce any Precipitation of Earth, by adding a fixt Alkali.  
From



From these and other Chemical Trials, several Times repeated, with Flour and Bread procured in many Parts of *London* and *Westminster*, the Result was nearly the same ; except that coarse Flour and Bread contained a few Grains more of earthy Matter. It evidently appears, therefore that no Frauds were practised in the above Samples.

The Defects of the *London* Bread seem to be owing to the following Causes :

1st. The Use of old Flour in Preference to new ; which gives the Bread a less savoury Taste.

2d. The employing *Spunge* instead of Yeast ; which generally gives a sour unpalatable Taste to the Bread.

3d. Not kneading it sufficiently, but, in Place of that Labour, using too great a Quantity of Water ; which makes the Bread heavy and unpleasant.

*Charles Irving.*

T H E E N D.



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THE  
C A S E  
OF THE  
BAKER, the MEALMAN, and the  
poor LABOURER,  
S T A T E D.

---

**H**E that labours has a Right to eat ; but if the Price of Bread does not bear that Proportion to the Price of Labour, that the Labourer's Wages can purchase enough to support him and his Family, he must (if we can suppose that he ought or that he will) starve. When Matters are come to that Pass, either the Wages of the Labourer must be raised so as to enable him to purchase Bread, or the Price of Bread must be lowered so as to come within the Reach of his Wages to purchase it. Whenever this Proportion is observed, or not observed, Things  
F may



may be said to be cheap or dear, whatever nominal Rates they are priced at. When Wheat was but Ten-pence a Bushel, it was much dearer than it is now, because at that Time the Price of Labour was but One Penny a Day, as settled by Law. A Man must at that Time labour Ten Days to earn a Bushel of Wheat; whereas now, was Wheat Fifty-six Shillings a Quarter, or Seven Shillings the Bushel, which is called very dear, he need but labour Six Days, at Fourteen Pence a Day, to earn the same Quantity of Wheat; the People therefore must not be misled by Names, as to their Ideas of dear and cheap. If the honest and industrious cannot live on the Wages of their Labour, Things are too dear, and the Case must be remedied. If the honest and industrious can live on their Wages, Things are not dear, whatever Rates and Names the Prices of Things are called by. The Wisdom of our old Laws, in general, settled the Proportion betwixt the Price of Labour and the Price of Bread from Season to Season, according to the Plenty and Dearth of Bread Corn. The Laws of this Assize in particular settled the Weights, the Measure, and the Price of Bread, (allowing the Miller and the Baker, who are equally intitled to the Price of their Labour, their due Profits), according to the Price of the Bread Corn. This was done by accurate Experiments, weighing the Wheat of different Sorts, examining, by repeated Trials, what Weight of Flour could be produced from a Quarter of middling Wheat, and then what Weight of Bread, adding the Water, Salt, and Yeast, could be made from this Flour. In order to set the Price on this Bread, the Price of the Wheat, the Expence of, and the Waste in grinding and dressing the Flour, and the Baker's Charge in making and baking, were added, and the Price, or rather the



the Affize, of the Bread was fixed accordingly. The Price of Labour was regulated by this Proportion, that the honest and industrious might live by their Labour. The Price of Wheat is not now out of Proportion to the Price of Labour. How comes it then that the poor and industrious Labourer is distressed for Bread? This Matter ought to be explained, and must be remedied. Where does the Fault lie? Has the Baker exorbitant and disproportionate Profits?

Those who have examined their Charges, Labour, Pains, and Livelihood, can declare, and do bear Testimony, that they have not. They have so little, *if they duly conform to the Law*, that had they less, they could not live by their Labour, and must leave off Trade. Has the World ever seen a Baker (One who has followed no other Trade) become a rich Man? The Baker *who conforms to the Law*, has no more than reasonable Profits for his Labour, Pains, and Livelihood. How then comes this distressing and oppressive Disproportion between the Price of Bread and the Price of Wheat? There must be some Profits in some other Branches which require looking into. Let the Miller and Mealman's Profits be next examined. It is necessary to the Relief of the poor and industrious Labourer that this Matter should be thoroughly sifted; it is necessary, to the Peace and Quiet of the Community, that it should be thoroughly understood. The Matter should be fairly laid before the People, that they may judge in what so much concerns them; they are capable of judging, and will judge fairly. As on one Hand they must know when they are imposed upon; so, on the other, as they expect to live by their Labour, they will live, and let live. By this fair Rule then let us examine



mine the Miller's (or as I would express myself) the Miller Mealman's Charges, Pains, and Profits.

Here in this Place, to obviate all Prejudice, and to check Violence, I would wish the People to understand that there is not a Trader more beneficial to the Publick than the Mealman, so long as his Business is conducted fairly, regularly, and under just Profits: He is become absolutely necessary to the permanent and equal Supply of great Towns; he must therefore be encouraged, not distressed or oppressed: It must not, however, but be remarked on the other Hand, how absolutely the more necessary it becomes to take Heed that he does not establish a Monopoly, or become an Extortioner.—Let his Charges and Profits, therefore, be fairly and dispassionately examined; it will be best so done in the following Form:—The Account will state the Market Price of the Wheat *per* Quarter, and the Weight of it *per* Bushel; then the Charges for carrying to and from the Mill, for grinding and dressing: Then, on the other Side of the Account, the Produce of this Wheat in pure Flour and in Bran, deducting the Loss by Waste in grinding and dressing; the Account will then state the Sum returned by the Price of the Bran; the Remainder therefore, which must balance the Account, is the Price at what the Flour ought to be sold as to give the Miller simply his fair Profits. And this will do, where the Circumstances of the Market are such that the People can deal immediately with the Miller. I must here repeat what I said above, that the Intervention of the Factor as Mealman is necessary in all great Towns: Without such Interposition the People could not be supplied at all Times without great Inconvenience and Loss; they would be very irregularly and very ill supplied, and



and often risque a temporary Dearth. If the Mealman has no more than his fair Commission, producing a sufficient Interest for his Capital, it is Money well bestowed by the Community, and well earned by him. I will therefore add next, what I suppose will be thought in the Way of Business, a reasonable Addition of Price to the Flour on this Account. The Accounts stated on different Sorts of Wheat of different Prices and different Weights stand as follow ;

Wheat weighing 58 lb, nett *per* Bushel,  
costs 48s. *per* Quarter.

	£.	s.	d.
To Three Quarters of the same	7	4	0
Charges in Carriage, grinding, and dressing	0	12	0
	<hr/>		
	7	16	0

These Three Quarters produced

	C.	qrs.	lb.
In Flour	9	2	14
In Bran	2	1	14
Waste	0	0	48
	<hr/>		
	12	1	20

The Weight of the Wheat,

9 Cwt. 2 qrs. 14 lb. of this Flour, at 37 s.	7	4	4 $\frac{1}{2}$
6 d. <i>per</i> Sack			
2 Cwt. 1 qr. 14 lb. of Bran, at 10 s. <i>per</i>	0	11	10
Quarter	<hr/>		
	7	16	2 $\frac{1}{2}$

So



So that the whole Flour of Wheat of 48 s. *per Quarter*, and weighing 58 lb. *per Bushel*, ought, so far as the Miller's Profits go, to be sold at 37 s. 6 d. *per Sack*. Now, if we add to this Two and a Half *per Cent*. Commission, and suppose that the Mealman on one Hand has no Credit allowed to him, but pays ready Money, yet, on the other, gives Three Months Credit—this Two and a Half *per Cent*. four Times repeated in the Year, gives Ten *per Cent per Annum* Interest on his Capital; but if we suppose the Mealman or Miller Mealman to give but Two Months Credit, or, as is more generally the Case, but Six Weeks Credit to the Baker, this will give an Interest between Fifteen and Twenty *per Cent. per Annum*; let us then add 11 d. or Two and an Half *per Cent*. to the 37 s. 6 d. and this will make the Price 38 s. 5 d. *per Sack*, the Price at which the Mealman ought to sell the whole Flour of such Wheat as above.

The next Account is of Wheat weighing 59 lb. *per Bushel*, which cost 50s. *per Quarter*.

	£.	s.	d.
To Three Quarters of Wheat as above	7	10	0
To Charges	0	12	0
	8	2	0

Produce in

	C.	qrs.	lbs.
Flour	9	3	10
Bran	2	1	14
Waste	0	1	20
	12	2	16

The



	£.	s.	d.
The Flour as above, at 38 s. 2 d.	7	10	2
The Bran Ditto, at 10 s. <i>per</i> Quarter	0	11	10
	<hr/>		
	8	2	0

Let us here, in like Manner, add Two and an Half *per Cent.* about 11 d.  $\frac{1}{2}$ , and this will make the Price 39 s. 1 d. *per* Sack for the whole Flour of this Wheat, as bought of the Mealman.

The next Account is of Wheat weighing better than 61 lb. *per* Bushel, and bought at 55 s. *per* Quarter.

	£.	s.	d.
Three Quarters of this Wheat cost	8	5	0
Charges	0	12	0
	<hr/>		
	8	17	0

These Three Quarters produce in

	C.	qrs.	lb.
Flour	10	1	8
Bran	2	1	14
Waste	0	1	20

Weight of Wheat — 13 0 14

	£.	s.	d.
Flour as above, at 40 s. <i>per</i> Sack	8	5	1
Bran as above, at 10 s. <i>per</i> Quarter	0	11	10
	<hr/>		
	8	16	11

ere the Mealman, in selling the Flour at 40s. *per* Sack, has 1 d. in Three Quarters short of the above Profits; but that can be made up in the superadding the Commission. The Commission adds 1 s. to the Price,



Price, so that the whole Flour of Wheat weighing better than 61 lb. *per* Bushel, and costing 55 s. *per* Quarter, may be sold by the Mealman at 41 s. *per* Sack.

If now the Flour was divided so as to answer *precisely* the several Sorts of Bread which the Laws (both the old and the late Act) require, *viz.* Wheaten, Standard Wheaten, and Household; that is to say, The Flour undivided to make the Standard Wheaten Bread; the Flour so divided that Half *only* should contain such Flour as will make *real* Wheaten Bread, and the other fair Half such as should make real Household Bread.

Then, I apprehend, the Prices of the Flour, in Proportion to the Price of the Wheat, would stand nearly as follow:

Wheaten <i>per</i> Quarter.		Household <i>per</i> Sack.	
s.		s.	d.
48		33	7 $\frac{1}{2}$
50		34	2 $\frac{1}{2}$
55		36	10 $\frac{1}{2}$
Standard Wheaten.		Wheaten Ditto.	
38	5	43	2 $\frac{1}{2}$
39	1	43	11 $\frac{1}{2}$
41	0	46	1 $\frac{1}{2}$

I will not be positive as to the precise Exactness of the above Proportions; I think no great Error in Practice will be found in them. However, I do the rather hazard them before the Publick, that whilst I am pursuing the Experiments and Inquiries which I am able to make by the Assistance of Office, and some private Friends of the Publick, others going in the



the same Line may be able to confirm or correct the Propositions which I deduce from them.

Having thus, according to my best Judgment, stated what from Experiment and fair Calculation, I say, *ought* to be the Case, I will here annex what in the ordinary Course of Trade *is* the Case.

I will suppose Wheat to be 44 *s.* the Quarter. The general Course of the Meal Trade divides the Meal of a Load of such Wheat as follows, on the Supposition that the Bushel of Wheat produces 42 lb. of Flour only.

Household,	so they call the Flour	
which should make the Wheaten	<i>lb.</i>	
Bread.		1080
Seconds	————	215
Thirds	————	96
Middlings	————	289

These they price and sell as follows :

	£.	s.	d.
Household 1080, 43 <i>s.</i> per Sack	8	5	10 $\frac{1}{2}$
Seconds 215, 40 <i>s.</i> Ditto	1	10	8 $\frac{1}{4}$
Thirds 96, 38 <i>s.</i> Ditto	0	13	0 $\frac{1}{4}$
Middlings 289, 28 <i>s.</i> Ditto	1	8	10 $\frac{3}{4}$

The Flour of a Load of Wheat. 11 18 5 $\frac{3}{4}$

The Load, or Five Quarters of Wheat,  
at 44 *s.* per Quarter. 11 0 0

The Bran and Pollard do, as the Trade themselves allow, sufficiently pay for the grinding and dressing, or the Miller's Profits. To balance this Account, it will be found that the Mealman's Profit is

0	18	5 $\frac{3}{4}$
11	18	5 $\frac{3}{4}$
		or



or 3 s. 8 d.  $\frac{1}{4}$  on every Quarter of Wheat, which at 44 s. *per* Quarter, is  $8\frac{1}{2}$  *per Cent.* This, on a Supposition that the Mealman gives Three Months Credit, is, Four Times repeated in the Year, 34 *per Cent per Annum*; giving Two Months Credit, and repeated Six Times in the Year, is 51 *per Cent. per Annum*; giving only Six Weeks Credit, or repeated Eight Times in the Year, is 68 *per Cent. per Annum.*

Now all this is calculated on the Supposition that the Quarter of Wheat does produce only 42 lb. of Flour, whereas it will produce from  $43\frac{1}{2}$  to 46, all which must be added to the Profit. This Account is also calculated upon a Supposition that the Bran and Pollard do but barely pay for the Miller's Charges.—When it does more than so, which I suppose the Trade will allow it often does, still more must be added to the Mealman's Profits.

No Notice is here taken of the Profits accruing to the Mealman, from his being able to form his Meal by a Mixture of various Sorts of Wheat.

All these are fair and just, as I think every one must own the Two and Half *per Cent.* also added to them, must be; even though by being repeated Six or Eight Times in the Year, it gives a Profit to the Mealman on his Capital of Fifteen or Twenty *per Cent. per Annum.*

When the Mealman's Profits go beyond these, the Bakers, I should think, (if they were not deceived by some amongst them who are Mealmen or in Partnership), would consider the disproportionate



tionate Share which the Mealman has of the Profits gained in the Manufacture of Bread Corn into Bread. The Baker has been long the Servant of the Mealman, without the Mealman's allowing him Journeyman's Wages. When this Matter comes to be understood, this will not long hold. The Price of Labour will not at present buy Bread: This the People feel, and this cannot hold. Can our Trade be carried on under the Burthen of the higher Price of Labour? Melancholy Experience tells us, that our Manufactures are already under-sold at the foreign Market, and Half our Manufacturers are without Employ. Can the Farmer afford to pay more to his Servants and Labourers, and at the same Time sell his Produce for less? At the present Rates of every Article of Housekeeping and Living, can the Landholder pay his Tradesman if he gets less for his Estate? If he cannot, the Tradesman must break through bad Debts, and the Mechanic must stand idle. Was there any possible Means of attempting to give Redress in any of these Ways, the only Effect would be that of shifting the Burthen from Shoulder to Shoulder round in a Circle, to the succeeding Oppression of every One, with the additional Distress of all, by Disappointment in the End: For the real Distress which the Poor and Labourer lie under, from the Disproportion of the Price of Bread to the Price of Labour, would still remain. That we have seen, arises in the first Instance, and in the Main, from the Price which the Mealman sets upon the Flour in Proportion to the Price of Wheat.

“ It is in vain to think of tying down the Bakers  
 “ to sell Bread according to the Assize from the  
 “ Market



“ Market Price of Wheat, and at the same Time  
 “ to leave the Millers at Liberty to buy up the  
 “ Wheat, and make the Bakers pay what Price  
 “ they please for the Flour.” This is a Conclusion  
 drawn from practical Knowledge by Mr. *Pelham*  
 of the Victualling Office, to whose Abilities in  
 Office the public Service, and out of Office the public  
 Good, is much indebted.

I will quote another Authority which will be decisive on this Point; that of *Charles Smith*, Esq; of *Stratford*, who in his Essay on the Corn Trade and Corn Laws, says, “ The Assize Table seems  
 “ to want some Enlargement, no Notice being  
 “ therein taken what Price Flour should be esteemed  
 “ ed to bear in Proportion to Wheat.” I am happy not only to found my Reasoning upon the Authority of his Opinion, but to quote him, that, at the same Time that I make my Acknowledgments of the Obligations I have to his Assistance, I may declare how much the Public in general, and the poor Labourer in particular, owe to him; for if there be any Merit towards them in the late Bread Act, it derives from him in the first Instance. I must at the same Time point the Gratitude of the Publick to *Thomas Farrer*, Esq; of *Mark Lane*, who is a real Friend of the Poor: For to him, if they receive Redress in this Article of Bread, and in the Price of Flour, they owe the first Steps toward the Remedy. This Article of the Price of Flour was formerly, as well as every other Article in the making of Bread from Bread Corn, regulated by an Assize. It is now between Thirty and Forty Years since Means were found to withdraw it from under the Assize. The Propriety



priety and Practicability of reducing it again under these Regulations, was very thoroughly enquired into and discussed. It was found to be dangerous to attempt all at once to alter by any positive and compulsory Regulations the present Modes of dividing the Flour; and it was found impracticable to attempt any Assize where there could be no Assay so as to ascertain the *Sorts* of Flour, which there cannot be while these Modes remain. The People have been long used to a Kind of Whitened Bread, which has been imposed upon them for White Bread, and which they pay for as Wheaten, although it is not such as the Law requires, but worse. When a Man has earned his Money by his Labour, he has a Right to lay it out in what Sort of Bread and Provision he thinks proper. Nothing in the Law was meant to prescribe to him what Sort he should eat. All this is by the Law left to the Magistrate, and to the Justices in their respective Jurisdictions. There is nothing in the Law which says positively that the Baker shall make and sell the Standard Wheaten Bread; there is nothing which says that the Miller shall provide the proper Flour for it; yet it lies with the Discretion of the Magistrate, where he sees it is desired, and may be done without Hazard, to introduce it. Whenever, in the Course of the Operation of this Act, it is seen that the Demand of the Publick calls for Flour being the whole Produce of the Wheat, it will be in the Power of Law to put the Flour also under the Assize. But if the People do not call for it, would they wish the Law to oblige the Miller to make it? The Remedy is in their own Hands, and they may have good and cheap Bread if they please. The Discretion of the Magistrate may lead them to right Apprehensions of the Matter, and to right Habits. An Assize upon the Flour will be the proper Remedy,



dy, and by it the Redress in this Matter will be compleat. The Means of obtaining a sufficient Knowledge how this Remedy may be applied with Safety and Effect, will neither be wanting nor neglected; and when the Circumstances of the public Consumption are ripe for it, it will be ready at their Call.

T. P O W N A L L.

A COM-



A COMPARATIVE VIEW  
of the Proportions which the *Eng-  
lish* WEIGHTS and MEA-  
SURES for WHEAT and  
FLOUR, mentioned in this  
REPORT, bear to those in  
Use in *Ireland*.

THE *English* Quarter of Wheat con-  
tains Eight *Winchester* Bushels, which  
Quarter upon an Average, weighs Thirty-two  
Stone, of 14 *lb.* Avoirdupoize each Stone.

The *Irish* Quarter of Wheat is Forty  
Stone. By adding One-fourth Part to the  
*English*, you find the Amount in *Irish*  
Weight.

Twenty Four Stone of Flour, fit for *Eng-  
lish* Standard Wheaten Bread, is equal in  
Value to an *English* Quarter of Middling  
Wheat—Adding thereto One-fourth Part,  
which makes Thirty Stone: This is equal  
in Value to an *Irish* Quarter of Wheat.

N. B. The *English* Quarter of Wheat,  
is sold by Measure; the *Irish* Quarter by  
Weight.

F I N I S.



Houses of the Oireachtas