A SCHEME, OR PROPOSAL,

For making a

Navigable Communication

Between the

Rivers of *Trent* and *Severn*,

In the County of *Stafford*.

By Dr. THOMAS CONGREVE,
Late of Wolver-Hampton, *in the County of* Stafford.

LONDON:
Sold by J. SHUCKBURGH, next Door to *Richard*'s Coffee-House, in *Fleet-Street*.
MDCCLIII. [*Price* 6 d.]

To the Right Honourable

GEORGE ANSON,
Lord Anſon *of* Soberton,
Firſt Lord of the Admiralty,
Vice-Admiral of Great-Britain.

I Take the Liberty to recommend the following Scheme to your Conſideration, who, being of the ſame County, are not, I preſume, a Stranger to the Capacity and Skill of the Author, whoſe Practice, as a Phyſician, gave him frequent Opportunities to obſerve the Situation and Nature of the Country for many Years; by which he was led to believe the following Scheme practicable, and was himſelf at the Trouble and Charge

to measure and calculate every Part of it, which proves it may be executed with little Difficulty. If, by the Influence of your Lordship, so beneficial a Scheme should be brought to Perfection, tho' your Fame cannot go further than the Circle you have carried it, by this it will be perpetuated for ever, and you will justly deserve the most grateful Thanks from your native Country, and highest Honour that can be given,

Dum labitur et labetur in omne
volubilis ævum.

THE

THE

PREFACE.

THE Ingenious Dr. CONGREVE, *after many Years Observation on the Country between the* Severn *and* Trent, *formed a Design of uniting those Rivers, and was at the Labour and Expence of measuring and calculating every Part of the Levels in that Distance; and hath published this Proof of his Ingenuity, without fearing the reproachful Name of* Projector, *usually bestowed, by the Ignorant, on all those who attempt any thing new for the Service of Mankind. He hath shewn, by comparing it with other Works of the same Kind effected in other Countries, that this*

Design may be executed without any very great Difficulty or Expence; and the Mills and Forges on the Canal and the Navigable Rivers and Sluices will be mutually useful to each other, according to the modern Ways of conducting Improvements of this Nature.

The Expence will appear less considerable than may be generally supposed, by comparing it with Works of this Kind already executed; and might be less so, by Employing the Army on this Undertaking, giving them a reasonable Addition of Pay.

By the Account kept of the Expence of cutting the new Canal at Chester, in the Year 1735, *it appears, that a Canal dug* 100 *Feet wide at Top,* 6 *Feet deep, and* 60 *wide at Bottom, cost* 28*s. every* 10 *Feet, which amounts to* 739*l.* 4*s. per Mile; that the Expence of that Canal,* 20 *Miles, did not exceed* 17000*l. But here a Canal of half*

half these Dimensions will answer all Purposes, and will not be half the Expence.

A Barge 120 *Feet long,* 15 *Feet broad, containing* 1800 *superficial Feet, and drawing* 2 *Feet Water, is equal in Weight to* 3600 *Cubic Feet; each Foot Cubic weighing* 70 *Pounds, amounts to* 252000 *Pound Weight; this Barge, if drawn with six Horses, will carry* 126 *Tuns, with* 2 *Feet Water, or very little more. If this Sceme be completed, it will make a Passage by Water from* York *to* Bristol, *across the middle of the Kingdom, where most of the heavy Goods are made or produced. Timber, Coals, Lead, Iron, Millstones, Lime, Alabaster, Marble,* Birmingham, *and all other Wares made in the Kingdom, would be carried to all Parts at a cheap Rate. What Advantage this will be to the Land-Owners, as well as to Trade, I need not mention. But*

So beneficial a Scheme, so clearly stated, merits the Attention of the Publick; and Money bestowed on some Person of Skill to measure and execute it will be more usefully laid out than in preventing Poachers, or in building a Bridge where there was little Occasion for it, and will not be a Quarter of the Expence. No Kingdom but England *would so long have neglected a Proposal so very advantageous.*

The

The Distance and Fall of the Water from Alderſley *to* Burton *upon* Trent *is as follows:*

	Miles.	Furl.	Perch.		Feet.	Inch.
From *Alderſley* to *Newmills* is,	2	1	25	Fall	20	0
Thence to *Penkridge*,	8	3	36		68	9
From *Penkridge* to *Burton*,	33	2	0		100	9
Total	43	7	21		189	6

In which Space are 17 Mills and Forges.

	Miles.	Furl.	Perch.		Feet.	Inch.
From *Alderſley* to *Newbridge*,	0	4	0	Fall	6	0
Thence to *Preſtwood*,	12	5	0		175	0
From *Preſtwood* to *Severn*,	13	0	8		104	6
Total	26	1	8		285	6

In which Space are 25 Mills and Forges.

Length of the Whole, 70 Miles, 29 Perches; Fall both Ways 475 Feet.

There

There are upon the whole Length of the ſaid Water 42 Mills and Forges, which, by late Improvements, will be a great Help to make the Rivers navigable, without any Damage to the Mills.

The Fall of the Water in the Canal betwixt *Peterſburgh* and the *Wolga*, both Ways, (that is, *Eaſt* and *Weſt*) is 555 Feet, which is more than the Fall of the Water of this Canal by 80 Feet. *Vid.* Captain *Perry*'s Account of *Ruſſia*.

In 475 Feet (the Fall of the *Penk* and *Smethſtall*) are 158 Yards, 1 Foot, which will require 32 Locks, Wares and Turnpikes, each Lock, *&c.* being 5 Yards high; which is not equal in Number to the Locks upon the River betwixt *Letchlade* and *London*, which, in 138 Miles, hath 36 Locks, Wares and Turnpikes.

A Canal from Severn *to* Trent *may be made*, viz.

Sixteen thouſand Acres are in a Square whoſe Side is five meaſur'd Miles; ſuch a Square ſeems to be betwixt *Eſington Windmill*, the Head of *Chillington* Mill-Pool, and the

the Tops of *Wrotteſlye-Park*, *Tettenhall-Wood*, *W. Hampton*, and *Biſhbury Hills*.

Seven Brooks ariſe from the Springs and Rain-Waters that fall on theſe 16000 Acres, and may all be drawn into a Magazine in the *Moors* betwixt *Tunſtall* and *Penford*.

Five or ſix hundred Acres will be in this Magazine, if a Dam of 24 Feet high be made betwixt the new Mills at *Penford* and the Hill, in which is the Stone-Quarry, and another at the new Bridge of *Tettenhall* 10 Feet high.

Twelve Miles or leſs will be the Length of the Canal from *Tettenhall* to *Preſtwood*, where the *Smethſtall* meets the Water from *Stourbridge*, and ſo goes to *Severn*.

Eight Miles or leſs will be the Length of the Canal from *Penford* to *Penkridge*, from whence the River will eaſily be made navigable to *Burton*. The Land-Floods of theſe 16000 Acres, that now are hurtful to Mills and Forges, by this Magazine will be made ſerviceable.

Seventy-one Market-Towns and Cities may trade by this Canal; more may be added.

Two Brooks run into the *Pool* at *Goſebrook* Mill, from whence the Water will run both into *Severn* and *Trent*, whenever the Miller pleaſes.

Five

Five Brooks only feed the Magazine of St. *Feriol* in *Languedoc*, which hath 595 Acres in it, and ſupplies a Canal 64 *French* Leagues long. See *Philoſ. Tranſact.* No. 56.

Two Millions and fifty thouſand Acres in the three Counties of *Stafford*, *Derby* and *Leiceſter*.

Twenty-four Miles Inland Navigation only to theſe three Counties.

One Market-Town only out of forty hath Navigation in the three Counties.

Two hundred and fifty thouſand Pounds *per Ann.* got by Water-Carridge in the ſame Quantity of Land in the ſeven *Dutch* Provinces.

Two thouſand ſix hundred and twenty-five Miles is the Length of the fifteen *Roman* Roads in *England* and *Wales*, many Parts of which are ſpoil'd for Want of Inland Navigation.

One thouſand Pounds *per* Week loſt out of the Iron Trade within ſix Miles of *Dudley* Caſtle.

One thouſand Tuns of Coals might perhaps be ſold every Week more than now are in the three Counties, and as many of Lead, Lime, Iron, Stone, Timber, Marble, Fullers-Earth, Wool, *&c.* If a Canal were made betwixt *Severn* and *Trent* by *Penk* and *Stour*, then Clothiers might trade from *Burton* to *Kinfare*, and ſo to *Bridgwater*, &c.

One

One Tenth of the waſte Land of the three Counties incloſ'd, will be worth 10000 *l. per Ann.* at 4 *s. per* Acre, which will make a Canal, and keep poor Vicars; this Canal will make an eaſy and cheap Carriage betwixt the Weſtern and Northern Clothiers, and bring Fiſh living, in Well-Boats, to ſupply theſe three Inland Counties.

300000 *l. per Ann.* is, ſays Sir *Wm. Petty*, the Charge of the Land-Carriage in *England*, one Third of which might probably be ſav'd, if this Canal were made betwixt *Severn* and *Trent*, and another betwixt *Severn* and *Thames* by the *Bath* River, and Market-Towns have Corn, Cheeſe, *&c.* carry'd cheaper than by Horſes, and 2000 *l. per* Week might be added to the Wages of the Labourers in Huſbandry and Manufactory, the Money ſav'd by Water-Carriage.

Nine Parts in ten of the Product of all till'd Lands are owing to the Labour of Men and Horſes, ſays Mr. *Locke*, ſo that to take off many Men and Horſes from Huſbandry to Land-Carriage, muſt be a vaſt Damage to Huſbandry, and no ſmall Damage to the Roads.

Two Miles and a half or more is the Length of the Magazine in the Moors betwixt *Newbridge* and *Penford* on the

Weſt

West Side of it, three Miles the Length of it on the East Side: It may contain 456 Acres.

Fifty Acres more might be added to it, by placing one Sluice on the *Dammill* Brook, out of the boggy Lands betwixt *Barnhurſt* and *Cronkwall*, and one other Sluice on the *Moſely* Brook, out of the boggy Lands betwixt *Penford* Wood and *Manſell-Newhouſe*, upon the Road betwixt *Wolver-Hampton* and *Stafford*.

More Magazines may be made on the Brooks that come out of the Foreſt of *Cannock*, &c. which would fall into the Canal, tho' not into this Magazine.

Seven Mills upon the Brooks that would come into theſe Moors, to join the *Barnhurſt* Brook, *viz. Chillington*-Mill, *Dam*-Mill, *New*-Mill, *Seawall*-Mill, *Goſebrook*-Mill, *Tunſtall*-Mill, and *Fordhouſe*-Mill, all which depend upon Springs, and have but ſmall Pools, except one.

If the Rains on theſe 16000 Acres that come into theſe Moors betwixt *Newbridge* and *Penford* are 36 Inches, which is leſs by ſix Inches than the Rains of *Lancaſhire* and *Cheſhire*, which join to Part of *Staffordſhire*, they are more than the Rains of *Liſle* by one Third, for their Rains are but 24 Inches, which help their Canal and that of *Mardyke*; and almoſt double to the Rains of

of *Paris*, which are 19 Inches, and perhaps to thoſe of *Briare*, which help to fill the Canal betwixt the two Rivers of *Paris* and *Orleans*.

The Rains on theſe 16000 Acres will probably fill this Magazine 12 times *per Ann.* 2 Yards deep.

The Depth of Rain-Water, if it were to ſtagnate on the Earth, would amount, one Year with another, at *Townley* in *Lancaſhire*, to 42 Inches and a half, at *Upminſter* in *Eſſex* 19 Inches and a Quarter, at *Zurich* in *Switzerland* 32 Inches and a half, at *Piſa* in *Italy* 43 Inches and a Quarter, at *Paris* in *France* 19 Inches, and at *Liſle* in *Flanders* 24 Inches.

Forty Acres allow'd to each Canal and its Locks, ſo that the Magazine of 500 Acres will fill both the Canals, and their Locks, being 80 Acres, five or ſix times, before it is empty once.

N. B. That the Rains on the Weſt Side of *England* are double to thoſe on the Eaſt Side, and that this Magazine will not be 40 Miles from *Weſt-Cheſter*.

If this Canal were made, and two or three more, it's very probable that the ſame Number of working Horſes and their Drivers now employ'd in *England*, working the ſame Number of Hours every Day, may improve the Product of the Lands

Lands of *England* to be worth 1000000 *l.* of Money *per Ann.* more than they are now. For the Horſes that might be ſpared from Carriage on the Roads, as alſo thoſe that carry Corn, *&c.* to Markets, might carry Marle, Lime, *&c.* which now lie uſeleſs in the Earth, for Improvement of Land, to make them produce much more Corn and Graſs, than they now do.

OBSER-

OBSERVATIONS *concerning the Rivers betwixt* Oxford *and* Bath.

SIR *James Long*'s Objections were made anew in 1683-4, which are ſaid to be anſwer'd in 1664 by Mr. *Ayliffe*, Mr. *Smith*, *&c.* who were for an *Inland Navigation* betwixt *Avon* and *Iſis*, by a Cut to be made from *Malmſbury* to *Summerford* upon *Iſis* near *Cricklade*.

Sixty thouſand Pounds computed by *Matthews* and *Baſkerville* to be the Charge of the Canal from *Briſtol* to *Oxford*, tho' there may be Rocks to be cut thro'.

Three Pounds per Ton the Price of Carriage by Land, and twenty Shillings per Ton by Water, from *Oxford* to *London*.

Mr. *Hill* and Mr. *Rowland Vaughan* were ſaid to deſign this in Q. *Elizabeth*'s Time.

Judge *Vaughan* propoſes Projectors to be hang'd that did not finiſh any Navigation undertaken by Subſcription, if they miſapply'd the Money.

From *Cricklade* to *Purtonſtalke* one Mile and a half, thence to the Foot of *Purtonhill* one Mile and an half, thence to *Brinkworth* betwixt *Summerford* and *Malmſbury* to fall into the *Avon* ſeven Miles. Here may a Canal be cut.

A Boat

A Boat might paſs from *London* to *Briſtol* in ten Days.

The Bill ſaid to paſs the Commons, but ſtopt, when twice read, with the Lords.

Cromwell ſaid to offer 20000*l.* at the *Navy-Office* to join the City of *London* in this deſigned Cut.

Matthews dedicates a Book about it to K. *Charles* II. *An.* 1670.

Vid. Mr. *Fridour*'s Book, 1672, of the *Languedoc* Canal; and *Philoſ. Tranſ.* No. 56. where is a Map of it.

Mr. *Collins* ſays, that from Canals to water Grounds ſprinkled with Salt is vaſt Profit.

Capt. *Matthews* had a Private Seal for the Cut granted to him, as he ſays, by King *Charles* II.

Thirty-ſix Locks, Wares and Turnpikes are upon the River *Thames* betwixt *London* and *Letchlade*, by which Navigation *London* receives the Proviſions of ſeven Counties, and ſends its Merchant-Goods to them.

It's humbly ſuppoſed, that the ſame Number of Locks, or fewer, may make good this Navigation betwixt *Severn* and *Trent*, and carry the Proviſions and Manufactories of ſeven Counties, or more, to above 70 Market-Towns and Cities.

93 Miles *Engliſh* is the Length of the Canal begun betwixt the *Don* and the *Walga*, to

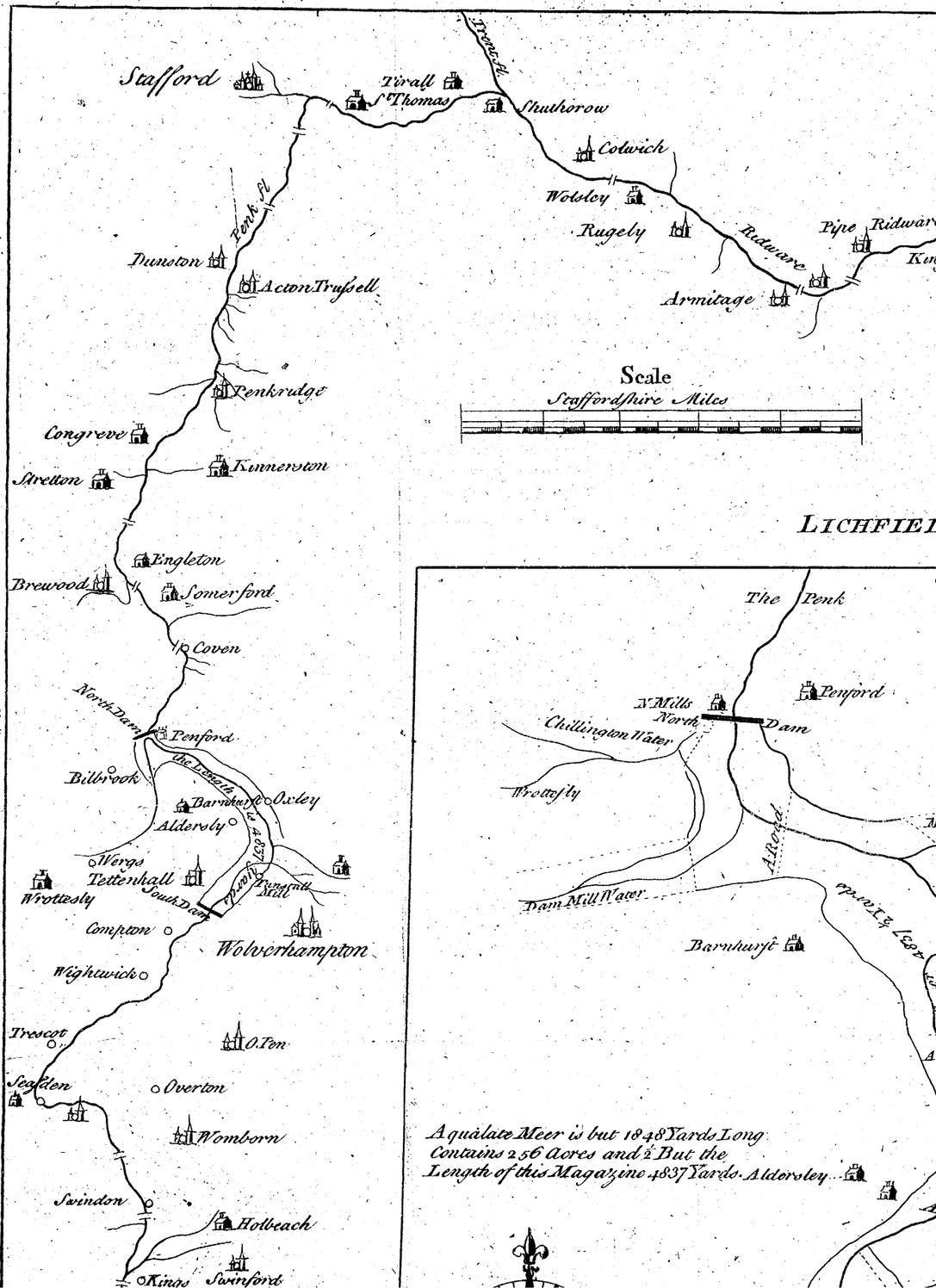
to make a Communication betwixt the *Caſpian* and the *Euxine* Seas.

The *Ladoga* Canal deſign'd for the Uſe of *Peterſburgh* 460 *Engliſh* Miles long, the Fall of the Rivers that fall into the *Wolga* 110 Feet, of thoſe that fall into the *Neva* (upon which another Dock is to be made) 445 Feet Fall. Total 555.

Vid. Capt. *Perry*'s Account of *Ruſſia.*

Four hundred ſeventy-one thouſand one hundred and fifty-four Men were employ'd to cut a Canal to draw down the Lake of *Mexico*, *Vid. Collection of Travels.* Vol. 4. Page 531.

F I N I S.



LICHFIEL

Stafford
Tivall St Thomas
Shuthorow
Colwich
Wolsley
Rugely
Ridware
Pipe Ridware
Kings Bromley
Armitage
Burton
Stapenhill
Barton
Walton
Wichnor
Alrewas
Elford
Fisherwick
LICHFIELD
Scale
Staffordshire Miles
Dunston
Acton Trussell
Penkridge
Congreve
Stretton
Kinnerston
Engleton
Brewood
Somerford
Coven
North Dam
Penford
Bilbrook
Oxley
Barnhurst
Aldersley
Wergs
Tettenhall
Wrottesly
Compton
Wolverhampton
Wighawick
Trescot
O. Pen
Seighford
Overton
Womborn
Swindon
Holbeach
Kings Swinford
Enfield
Prestwood
Stour & its Canal
Stourton Castle
Dunsley
Old Swinford
Kinfare
Kederminster
Bewdley
Severn R.
Mitton
Hardebury Cast.
The Penk
Penford
Mills
North Dam
Chillington Water
Wrottesly
Mostly Water may come in here
A Road
Dam Mill Water
Barnhurst
Penford
Wood
Aqualate Mere is but 1848 Yards Long
Contains 256 Acres and ½ But the
Length of this Magazine 4837 Yards. Aldersley
A O
Tettenhall
South
New Bridge
Dam
The
Smestall
Esq.r Grosvenor's
Tunstall Mill
Gosbrook Mill Water
Tunstall
Scale
Eighty Chains to One Mile.
This MAP
was taken by
Peter Pembleton Esq.r
of this
COUNTY.

456 Acres will be in this Magazine If a Dam 24 Foot high be made at the North end; And another at y.e South end 10 Foot high to which by two more Sluices 50 Acres more might be added
Fall of the Water from Aldersley where the Water runs both ways to the joyning of the Smestall and Stour 181 Feet from the same place to Bullbridg at Penkridge 88 Feet 9 Inches thence to Burton 100 feet 9 Inches from Stour-mouth to Severn the fall is 104 feet and ½. Totall fall of both Rivers 475

A O is the Place where the Water will run either to the North or South.