[No. 17, of Vol. IV.]

SATURDAY, JULY 28, 1792.

Whole No. 339.

FROM THE FEDERAL GAZETTE.

PUBLISHED BY REQUEST.

A SECOND ESSAY

ON THE

INLAND NAVIGATION,

BETWEEN THE RIVERS OF SUSQUEHANNAH AND SCHUYLKILL.

THE Remarker (in Dunlap's paper of July 7 on my plan of constructing the Inland Navi gation between the Sulquehannah and Schuylkill, has done what every man ought to do, who has that most interesting concern at heart—i. e. he has published the objections to my plan which occur-red to him; for 'tis certainly better to foresee objections, than to meet them unexpectedly in the

course of the work. For the same reason 'tis my duty to obviate those objections if I fairly can, that we may not be dif-couraged by an appearance of obstacles, which either do not exist, or may be easily removed or

proportion to the infinite advantage of the great

But 3. The objection with respect to the watered meadows is real in but a very small degree; for the use of water on meadows is nearly confined to the fore part of the year, previous to the crops, at which season the water will not be wanted in the canal; that supply can only be necessary in the low state of the springs, which does not happen till the fall of the year.

2. The Remarket next goes on to observe the But 3. The objection with respect to the wa-

2. The Remarker next goes on to observe, that the inclined plane is used in Europe, by ma-chines which are worked by hand without water; this is doubtless an argument in favor of the in-clined plane, in case there should ever happen a clined plane, in case there should ever happen a failure of water, but I suppose he does not mean to suggest the expediency of working the machines by hand, when there is water enough to carry them; in short we have no occasion to look for expedients of what may or can be done without water, because 'tis a most undoubted certainty, that we can command water enough through the year for the transmission of a thousand boats a day, of 40 tons each. This I conceive will be quite enough for the present generation, and if posserity should need more, we will leave them to look for it, or to contrive ways and means of doing without it. doing without it.

The Remarker goes on to fuggest the diffi-3. The Remarker goes on to fuggett the unity of fecuring the water works and machinery against freshes and inundations, to which they will be exposed; but I-conceive this is no greater than occurs in all grist-mills or other water works, which stand on the same stream, and is too trisling

4. The Remarker goes on to recommend Mr. Arthur Donaldson's newly invented balance lock; I admit this is an ingenious device, but is liable to some small objections which I wish the Remarker

to obviate.

1. The scheme hangs large cassoons (filled with water, and into which the boats are to be drawn) on to the arms of strong timbers like the dishes of a fcale, which timbers are to vibrate on pivots like scale beams, fo that when one casson rifes, the other will fink like the opposite dishes of a scale—

So far is very well, but
2. I conceive the difficulty will be in hauling the boats into and out of the cassoons, for in or-

3. The coffoons must be of 3 or 4 feet height, and of course the surface of the included water and of courie the furface of the included water will be then much higher than the bottom of the caffoon, and when the lower caffoon finks loss to touch the water below, it will go no further, for if it finks into the water, it will be buoyed by it, and of course will be lightened so as not to retain gravitation enough to raise the opposite cassoon which hangs in the air, and of course they will both stop; the lower one some feet above, the upper one equally below the furface of the feveral ponds with which they must communicate before the boats can be hauled in or out of the

4. This plan requires an everlafting equality of furface of water in the two ponds, both above and below the dams over which the boats are to be conveyed, for the pivois on which the balance beams vibrate being fixed points, if you raise or lower the furface or floor on which the dishes reft, you necessarily exalt or depress the extreme ends or arms of the balance beams, either of which wil totally deftroy the operation of this plan, because it will unavoidably raise or depress the cassoons above or below the furface of the ponds with which they must communicate, either to receive in or discharge the boats; but such equality of

furface can never be obtained, for freshes will raise, and droughts will depress those surfaces, an augre all human attempts to prevent it.

5. If all these objections could be got over, I object surface as great complexity of the plan, and the numerous difficult equations essential to its operation, and which must be supported with great exactness, or the execution and ale must fail.

Whereas the inclined plane and its machinery is as simple as a griss-mill, or even a cutler's grindsione and wheel; is liable to none of the above objections, and is not affected by any different heights or surfaces of water, except extreme ireshes, which may perhaps suspend the machinery a day or two 'iill the water abates; this plan is manifestly and intuitively practicable to the largest amount of scale or extent that can be necessary; is equally adapted to boats of all sizes, from the largest to the smalless, which can be required, because the force can be adjusted to any quantity requisite by increasing or diminishing the water let on to the wheel. let on to the wheel.

After all I perfectly agree with the Remarker that Mr. Donaldfon's plan and mine, and all the reft proposed, aught to be submitted to actual experiment, under the direction of their several inventors, which is really the only true test-of all inventions of this fort.

which is really the only true test of all inventions of this fort.

The Remarker proceeds to object to my method of conducting the navigation along the bed of the creeks, and prefers artificial canals in order to avoid injudation, ite, &c. &c. which he thinks the most dangerous part of the whole concern, on which permit me to observe: 1. That the digging a canal fixty miles in length, and large acquainted with the subject, that there is a pleutiful sufficiency of water near the crown land for every necessary purpose.

2. But if a recourse to the distant waters should be expedient, even this is a very happy resort, and the expense and spoiling some watered means are objects so instantial many times. The results of all inventions of this fort.

The Remarker proceeds to object to my method of conducting the navigation along the bed of the creeks, and prefers artificial canals in order to avoid insudation, ite, &c. &c. which he thinks the most dangerous part of the whole concern, on which permit me to observe: 1. That the digging a canal sixty miles in length, and large stored to the creeks, and prefers artificial canals in order to avoid insudation, ite, &c. &c. which he thinks the most dangerous part of the whole concern, on which permit me to observe: 1. That the digging a canal sixty miles in length, and large stored the purpose, will be the work of the purpose.

2. When done, will almost instantial the creeks, and prefers artificial canals in order to avoid insudation, ite, &c. &c. &c. which he thinks the most dangerous part of the whole concern, on which permit me to observe: 1. That the digging a canal sixty miles in length, and large size at the creeks, and prefers artificial canals in order to avoid insudation, ite, &c. &c. &c. which he thinks the most dangerous part of the whole concern, on which permit me to observe: 1. That the digging a canal sixty miles in length, and large size at the creeks, and prefers artificial canals in order to avoid insudation, ite, &c. &c. &c. which he thinks the most dangero

up again, unless it is all the way lin'd with wood, or masonry, and passages every where made under or over it, to carry off the deluges of water, meltide flow, leaves weeds, &c. which will frequently come pouring down from the higher lands above it; and after all we can't be with certainty guarded against undermining through the sides and bottom, which will occasion a vast absorption of water and probably garry off large bases of the tom, which will occasion a vast absorption of water and probably carry off large spaces of the works, and leave such holes and cavities, as will render repairs very expensive if not impracticable; the severity of frost, quantities of snow and deluges of rain, the looteness of the foil and porous nature of the limestone lands (so all which the country is every where subject) indicate all these effects and leave us no reason to expect that we can avoid their actual consequence.

and leave us no reason to expect that we can avoid their actual consequence.

3. The natural beds of the Creeks are free from all these inconveniences, there is no dangerous current in the middle of any millpoud in the highest freshes, and at the head and soot of every dam (at one hundredth part of the expence of the artificial canal) we can make piers and quays sufficient to secure the boats against any danger of stoods or ice in the highest freshes that ever happened; the natural beds of the creeks have supported the waters of them from the beginning of the world, and will to the end of it; our navigation along these beds will lie from river to river, through a course of dead ponds with little current to incommode, and none to endanger the boats.

to incommode, and mone to cudanger the boats.

4. There will be large room for all vessels to pass and repass, and all such to lie at anchor or haul ashore, as may have occasion to stop either for business or repairs.

for business or repairs.

5. In this way we can enlarge the navigation to any degree we please, for if one set of ways and machinery over the dams is not sufficient; we may add two, three, four or five additional ones, which may all be used at one, and the same time, if the quantity of conveyance shall make them necessary, and when we consider that the proposed navigation is design'd for the principal communication between a country of two thousand miles extent and the Sea, we may soon expect to have applications from an infinite number of boats, and therefore ought to calculate our works on the largest scale to accomposate them.

6. The inclin'd plane and machinery will fit a

6. The inclin'd plane and machinery will fit a high dam equally as well as a low one, fo that it any circumstances require some dams to be made higher than others (which may probably be the case) no inconvenience can follow; for any boats in this way can pass a dam of 20 feet high, as well foons must be on a level with the water in the ponds or canals with which they must communicate; but I conceive this level cannot be obtained, portance of the great concern, that it vanishes in-to nothing-I don't conceive it will ever be neceffary to draw the boats with horses, but if that mode should be adopted, 'tis as easy to make a horse road by the fide of the millpond as by the

> In fine the plan and execution of the works ough to embrace principles of the greatest strength terrupted by decays or breaking of the works and repairs, and ought also to be calculated on the greatest extent and scale possible that they may be adequate to the vast, the immense occasious of

Further I conceive the plan and direction must inconfishency, and ruin the uniformity of the whole.

On the whole a good plan, grounded on principles of natural fitness, and a good beginning, with a good choice of workmen, are half the work. What remains is prudence, diligence, and uniform perseverance, all these will soon expedite the works, and produce a happy conclusion.

A CITIZEN OF PHILADELPHIA. Philad. July 0, 1792.

LONDON, May 23.

WHEN the Stocks rife, and pro visions are cheap, these are adduced as infallible proofs of the wifdom and virtue of Mr. PITT's administration. Stocks have now fallen eight per cent. provisions are at an exorbitant price, and these too, are cited as proofs of the wisdom and virtue of Mr. PITT's Administration.

There is a forgery handing about, under the title of Refolutions, from the Society at Norwich, in which they are ingeniously made to declare, that "they are affociated together to procure an equal distribution of landed property."

IRELAND.

Accounts were yesterday received from the North of Ireland, of an unfortunate dispute between the Protestants and the Catholics. The latter were going in procession to a funeral, with arms and colours flying. The Protestants infifted on the colours being lowered, which the Catholics refused, and a general en-gagement took place. The Catholics on a momentary interval between being defeated, rallied next day with the wit and folly of the passing throng, additional force, and their opponents it just twitched his seeve, to make additional force, and their opponents were defeated in their turn, owing him look about, then taking him fachiefly to a deficiency of ammunition. Several persons were killed on both

NAPPER TANDY has subpanaed the SPEAKER of the House of Commons, and clearly intends to profecute the Privy Counsellors who figned the Proclamation offering a reward for apprehending him.

FIRE AT BARTON STACEY.

Some people being at work at Mr. Moody's shop, smith and edge-tool maker, a large slake of red hot iron flew out of the shop window, and falling on fome dry litter mear a cucumber bed, fet it instantly on fire. This communicating to an adjoining millhouse, covered with thatch, where a horse was at work, the whole in a few minutes was in flames.

These premises being situated at the northern extremity of the parish, the wind high, and blowing in a direct line with the ftreet, carried the thatch like a ftorm of fire, swifter than a man could run, from one house to another, till the whole village was vor me with your address?

in flames! At one instant twenty seven houses, thirteen barns, ten stables, several wheat, were in flames. The thatch was completely burnt up, with a of your own good heart; take but great number of waggons, carts, the trouble to fearch fo far. threshed and unthreshed corn, twenty-eight pigs, a great quantity of utmost penury.

stairs after his money. He was sup posed to have about four hundred guineas in a coffer, which he faid he was determined to fave, or perish in the attempt. He had no fooner reached the top of the stairs, than the roof fell in upon him.

Norwich has been the scene of some disturbances, occasioned by the advance in the price of burcher's meat. The people were very turbulent on Saturday last, but were pretty well appealed on Sunday, though with threats of assembling again next Sabe the work of one mind, divided councils and turday, unless some remedy is apopinions will consume much time, introduce plied to this growing and oppressive plied to this growing and oppressive evil.

MASQUERADE.

ling appeared. The Prince of Wales fave the expence of advertifing.

and the Duke of Clarence, (with a lady as their protegee, concerning whom much has been unavailingly faid) entered the diffipated circle about one, and flaid for two or three hours. The whole number prefent was, we Suppose, between 12 and 1500, many of whom flayed till long after the grey dawn had warned them to retire. The rounda was not cleared till all the good citizens of London were at breakfast. An ode was performed in honor of the Duke of York's nuptials; but amid the din of fashionable folly, neither the words nor the mufic had much attention paid to them.

Dialogue at the late masquerade, between his R- H- the Pof W - and a Mask.

There was a Mask in a black domino, with a jewel of confiderable value, though more than half concealed, pendant on the left fide of the breaft. This Mask, from the time the Pentered the room, kept watching for an opportunity of speaking to his R—H—. At length seizing upmiliarly under the right arm, and walking on, addressed him in a pointed manner, though in gentle accents in the following lines:

" A youth amongst the foolish youths, I spied, " Who took not facred Westion for his guide :

" From Virtue's paths how far he went aftray, " Will fland recorded, on some future day,

" In British annals."-

The P- with a fide glance, viewed the stranger with an inquisitive

look, faying, P.—And who the duce are you? Mask-No matter who, for I am the professed Advocate of facred Wisdom and Virtue; but grown weary with pleading an unsuccessful eause, I act at present in the capacity of Chamber Counfel, and give the best advice as often as it is asked,

P .- Then you act like a gentleman of understanding; or rather, I should fay (in a fort of half-whifper) a gentlewoman, for, upon my foul, I take you to be of that fex. - Will you fa-

Mask-That is altogether unnecesfary, my ---, for whenever your R--- H--- finds leifure and incligranaries, and four ricks of capital nation for a consultation of that nature, you will find the counter-part of upon several extensive garden walls my jewel here, in the secret recesses

The mask instantly disappeared, and was feen no more the whole night; poultry, and all the furniture and but the P- was observed to fold entire property of great numbers of his arms for a few moments, before poor people, who are reduced to the his attention could be roused by the Farmer Friend, at the advanced ge of fixty, perished in going up tairs after his money. He was sup-

ADVERTISEMENT EXTRAORDINARY.

WANTED Three thousand fix hundred and fifty Engravers to enable the Editors of great and splendid works now printing in England, to complete heir engagements with the public in less than half a century.

No enquiries will be made as to their abilities, and they are wanted in all branches except that of the stroke, which is too difficult, too tedious, and too expensive for the traffic of the liberal art. Stippling, tinting, dotting, and fcraping, as they require neither time nor genius, will be preferred.

N. B. A premium will be given to any ingenious mechanic for the in-The Masquerade at Ranelagh on vention of a poligraphic engine that Tuesday night, was splendid and ele- would engrave not less that 100 plates gant-the supper plentiful-the wine at a time, to go, or rather to grind by good-and all that; but of wirth steam, by water, or by wind. A wind-and characters only a small sprink-mill would be preserved, as it would