

experiment, that many of those varieties that have been called merely feminal varieties, are fixed and unalterable, never varying in any situation, while others are liable to changes from the juxta position of other varieties of the same class of plants, that like mongrel animals, may be predicted before they are produced, and that their variety thus once obtained, may be continued at pleasure without alteration. This is a curious disquisition, that deserves to be further pursued.

The seventh and last division treats of the disease called the curl in potatoes, and some other peculiarities observable with regard to this plant. Concerning the curl, our author's observations tend rather to show, that the causes which have been assigned for this disease by others, cannot be well founded, than to give a satisfactory account of the nature of that disease. The other observations in this section, are of a miscellaneous nature, which we cannot stop to specify. This very elaborate essay, which occupies more than a hundred pages of this volume, thus concludes.

The reader cannot fail to have remarked, that the foregoing experiments and observations, only tend to pave the way for an accurate set of experiments, to ascertain with some reasonable degree of precision, the soil, manures, and culture, that are best calculated to produce the largest crop of potatoes. Till the particulars above specified be fully ascertained, any attempt to prescribe the best and most advantageous mode of cultivating this valuable plant, must be vain and nugatory, as perpetual contradictory facts would occur, which would involve the subject in the same doubt as at present. Fully convinced of these things, my aim in this essay has been solely to elucidate some important previous questions. Little more indeed has been done, than to point at what is wanted, to enable us to go forward in a proper manner; and these imperfect hints, are submitted to the public, in hopes of inducing others, who have better opportunities of making experiments than myself, to exert themselves in an effectual manner, to ascertain these points that are still doubtful.

patches of the 26th of June, I made an excursion into the counties of Philadelphia, Chester, Lancaster, Berks, and Montgomery, in this state, and passed through a district of country where the culture of wheat is much attended to, and where husbandry is in as high a degree of perfection as in any part of this continent. It was universally agreed, my Lord, by all the Farmers with whom I conversed, that no insect of the description to which the Hessian fly answers, or even of the weevil kind, had ever affected the wheat there.—Some few years ago a small worm, not unlike an ant, attacked the rye. It confined itself to the root of the grain, and was for a time troublesome and alarming; but it did not continue long, and has never since appeared.

It is very certain, my Lord, that the fly, called the Hessian fly, had not, till within these two years, shewn itself in any county of this State: Its progress having been from the N. E. to the N. N. W. & S. and S. W. The county of Berks bounding on the river Delaware (which river separates the States of Pennsylvania and New Jersey) was the first county in the State of Pennsylvania that felt the inconveniences of this destructive insect; and there is now very conclusive reason to believe it has already made a progress, and that within a few weeks, many miles further to the S. and S. W. and will be severely felt, in some of the interior counties of this State, by the destruction of the crops of the next year.

I have, my Lord, taken great pains to collect and examine all the papers published here on this interesting subject, which your Lordship will receive by this mail; I have also visited Mr. Cleaver and Mr. Jacobs, the former of whom first discovered the fly, in the county of Chester, the latter published the printed paper, now sent; signed by him and Mr. Vaux.—I have also seen and conversed with many other intelligent men, who have observed the destructive ravages of this fly, but, my Lord, the result of the information I have received, and of my own observation and the experiment of others, has not furnished me with any satisfactory means of deciding whether this insect attacks the grain of the wheat, and if so, may be communicated by seed; or whether it is confined to the plant and straw alone, and of course not to be communicated by seed.

Your Lordship will find this destructive insect first discovered upon Long Island, in the year 1779.—That island is in the State of New York; it is to the E. or rather N. E. of those parts of New Jersey and Pennsylvania, in which the fly has appeared; and to the S. S. E. and S. W.

PROCEEDINGS of the PRIVY COUNCIL relative to the HESSIAN FLY.

(Continued from page 360.)

No. 21. LETTER from Mr. Bond to the Marquis of Carmarthen, dated Philadelphia, 1st October 1788.

My Lord,

I IMMEDIATELY after I had the honour to receive your Lordship's dis-