



## LXIX. An easy, simple, and infallible method to force every fruit-tree to blossom and to bear fruit

George Henry Noehden LL.D. F.L.S.

To cite this article: George Henry Noehden LL.D. F.L.S. (1817) LXIX. An easy, simple, and infallible method to force every fruit-tree to blossom and to bear fruit , Philosophical Magazine Series 1, 50:236, 411-413, DOI: [10.1080/14786441708637809](https://doi.org/10.1080/14786441708637809)

To link to this article: <http://dx.doi.org/10.1080/14786441708637809>



Published online: 27 Jul 2009.



Submit your article to this journal [↗](#)



Article views: 2



View related articles [↗](#)

several different concentric rings. Such would be the whole of the orbits of the satellites of Jupiter, if each satellite left a permanent light in its path; the partial rings must be like these orbs, differently inclined to the equator of the planet: and then, their inclinations, and the positions of their nodes, changing in periods of greater or less time, embracing several years, their centres must in like manner oscillate round that of Saturn; all this would cause the apparent figure of the whole of these rings to vary. Their motion of rotation would not change this figure sensibly, since it only replaces one luminous part by another situated in the same plane. It is very probable that the phenomena observed by M. Schröter are caused by variations of this kind. But if a point, more or less luminous than the others, be adherent to the surface of one of the partial rings, this point ought to move as rapidly as the ring, and appear to change its position in a few hours. We may suppose with great probability that it is a point of this kind that Dr. Herschel has observed. I request observers furnished with good telescopes to notice the appearances of the ring of Saturn with this view. The variety of these appearances were a great plague to mathematicians and astronomers before Huygens had found out the cause: the ring was first seen by Gallileo in the form of two small bodies adhering to the globe of Saturn; and Descartes, who unfortunately wished to explain all things with his principles of philosophy, attributed, in the third part of his work, the stationary state of these pretended satellites, to Saturn's presenting always the same side to the centre of his vortex. We now know that this state is contrary to the law of universal gravitation; which is a sufficient reason for rejecting the explanation given by Descartes, even though we do not know the precise cause of these appearances. I do not consider the immobility of the ring as less contrary to this great law of Nature; and I do not doubt but that future observations, made with the view I have just pointed out, will confirm the results of the theory, and the observations of Dr. Herschel.

---

LXIX. *An easy, simple, and infallible Method to force every Fruit-Tree to blossom and to bear Fruit. Translated from the German of the Rev. GEORGE CHARLES LEWIS HEMPEL (Secretary to the Pomological Society of Altenburgh in Saxony) by GEORGE HENRY NOEHDEN, LL.D.F.L.S.&c.\**

IN my early years I saw my father, who was fond of pomology and skilled in that science, cutting a ring on several branches of

\* From Transactions of the London Horticultural Society.

trees,

trees, which already were in blossom, for the purpose of producing, by that means, larger fruit than usual. This was not his own invention, but, as far as I recollect, derived from a French journal. Thirty years ago, when I was a boy, I practised this operation, in imitation of him, and thereby obtained larger pears and plums. In repeating this operation of *ringing* the branches, which I did merely for the purpose of getting larger fruit, I observed that the branches so operated upon always bore the next year. By this reiterated appearance I was led to the idea, that perhaps this mode of ringing the bark might be a means of compelling every unproductive branch to yield fruit. With this view, I cut rings upon a considerable number of branches, which as yet showed no blossom; and found by repeating the experiment the truth of my supposition indisputably confirmed by experience.

The application of this experiment, whereby upon every bough or branch fruit may artificially be produced, is very simple and easy, and the mode of proceeding as follows.

With a sharp knife make a cut in the bark of the branch which you mean to force to bear, and not far from the place where it is connected with the stem, or, if it be a small branch, or shoot, near to where it is joined to the larger bough; the cut is to go round the branch, or to encircle it, and to penetrate to the wood. A *quarter of an inch* from this cut, you make a second cut, like the first, round the branch, so that, by both encircling the branch, you have marked a ring upon the branch, a quarter of an inch broad, between the two cuts. The bark between these two cuts you take clean away with a knife, down to the wood, removing even the fine inner bark, which immediately lies upon the wood; so that no connexion whatever remains between the two parts of the bark, but the bare and naked wood appears white and smooth. But this bark-ring, which is to compel the tree to bear, must be made at the right time, that is, when in all nature the buds are strongly swelling or are breaking out into blossom. In the same year a callus is formed at the edges of the ring, on both sides, and the connexion of the bark, that had been interrupted, is restored again without any detriment to the tree, or the branch operated upon, in which the artificial wound soon again grows over.

By this simple though artificial means of forcing every fruit-tree, with certainty, to bear, you obtain the following important advantages:

1. You may compel every young tree of which you do not know the sort, to show its fruit, and decide sooner, whether, being of a good quality, it may remain in its first state, or requires to be grafted.

2. You

2. You may, thereby, with certainty, get fruit of every good sort, of which you wish to see the produce, in the next year.

3. This method may probably serve to increase considerably the quantity of fruit in the country.

The branches so operated upon are hung full of fruit, while the others that are not ringed, often have nothing, or very little on them. This effect is easy to be explained from the theory of the motion of the sap. For, when the sap moves slowly in a tree, it produces fruit-buds, which is the case in old trees; when it moves vigorously, the tree forms wood, or runs into shoots, as happens with young trees.

Though I arrived at this discovery myself, in consequence of trying the same process with a different view, namely to increase only the size of the fruit, but not to force barren branches, that were only furnished with leaf-buds, to bear, this latter application being before quite unknown to me; I will on that account by no means give myself out for the first inventor of this operation; but I was ignorant of the effects to be produced by this method, and only discovered them by repeated experiments of my own, which I made for the promotion of pomology. Frequent experience of the completest success has confirmed the truth of my observations. Nor do I think that this method is generally known; at least, to all those to whom I showed the experiment, the effect produced appeared new and surprising. At all events, that method, supposing it even to be an invention of older date, has, as far as I know, not yet been fully described by any one, and published in print.

LXX. *On the Resistance of Solids; with Tables of the specific Cohesion and the cohesive Force of Bodies.* By Mr. THOMAS TREDGOLD\*.

*Definitions, &c.*

1. **COHESION**, or *attraction of cohesion*†, is that force by means of which the particles of bodies are held together.

When the particles of a body cohere so slightly that they are easily moved among one another, in every direction, by a very small force, the body is called a *fluid*.

\* Communicated by the Author.

† Of the nature of attraction of cohesion, nothing is known; but the phenomena prove the existence of that property of bodies to which the name is applied. It is known that the parts of bodies do cohere, and that, when accidental circumstances are excluded, a determinate force will separate them; and this force being given, the theory of the resistance of solids consists in nothing more than applying the principles of mechanics to determine the power which will destroy that cohesion, when the direction of the power, and the position and magnitude of the body, are given.

When