peace in Montgomery county, in the ſtate of New York, informed Arthur Noble, Eſq; that he had made twenty pounds and one ounce of ſugar between the 14th and 23d of April, in the year 1789, from a single tree that had been tapped for ſeveral ſucceſſive years before.

From the influence which culture has upon foreſt and other trees, it has been ſuppoſed, that by tranſplanting the ſugar maple-tree into a garden, or by deſtroying ſuch other trees as ſhelter it from the rays of the sun, the quantity of the sap might be increaſed, and its quality much improved. A farmer in Northampton county, in the ſtate of Pennſylvania, planted a number of theſe trees above twenty years ago in his meadow, from three gallons of the ſap of which he ob­tains every year a pound of ſugar. It was obſerved former­ly, that it required five or six gallons of the ſap of the trees which grow in the woods to produce the ſame quantity of ſugar.

The ſap diſtils from the wood of the tree. Trees which have been cut down in the winter for the ſupport of the domeſtic animals of the new ſettlers, yield a considerable quan­tity of ſap as ſoon as their trunks and limbs feel the rays of the sun in the ſpring of the year. It is in conſequence of the ſap of theſe trees being equally diffuſed through every part of them, that they live three years after they are girdled, that is, after a circular inciſion is made through the bark into the ſubſtance of the tree for the purpoſe of de­ſtroying it. It is remarkable that graſs thrives better under this tree in a meadow, than in ſituations expoſed to the constant action of the ſun. The ſeaſon for tapping the trees is in February, March, and April, according to the weather which occurs in theſe months.

Warm days and froſty nights are moſt favourable to a plentiful diſcharge of ſap. The quantity obtained in a day from a tree is from five gallons to a pint, according to the greater or leſs heat of the air. Mr Lowe informed Arthur Noble, Eſq; that he obtained near three and twenty gallons of ſap in one day (April 14. 1789.) from the single tree which was before mentioned. Such inſtances of a profuſion of ſap in single trees are however not very common.

There is always a ſuſpenſion of the diſcharge of ſap in the night if a froſt ſucceed a warm day. The perforation in the tree is made with an axe or an auger. The latter is preferred from experience of its advantages. The auger is introduced about three quarters of an inch, and in an aſcending direction (that the ſap may not be frozen in a flow cur­rent in the mornings or evenings), and is afterwards deepen­ed gradually to the extent of two inches. A ſpout is in­troduced about half an inch into the hole made by this auger, and projects from three to twelve inches from the tree. The ſpout is generally made of the ſumach or elder, which uſually grows in the neighbourhood of the ſugar trees. The tree is firſt tapped on the ſouth side ; when the diſcharge of its ſap begins to leſſen, an opening is made on the north ſide, from which an increaſed diſcharge takes place. The ſap flows from four to six weeks, according to the temperature of the weather. Troughs large enough to contain three or four gallons made of white pine, or white aſh, or of dried water aſh, aſpen, linden, poplar, or common maple, are placed under the ſpout to receive the ſap, which is carried every day to a large receiver, made of either of the trees before mentioned· From this receiver it is conveyed, after being ſtrained, to the boiler.

We underſtand that there are three modes of reducing the ſap to ſugar ; by evaporation, by freezing, and by boil­ing ; of which the latter is moſt general, as being the moſt expeditious. We are farther aſſured, that the profit of the maple tree is not confined to its ſugar. It affords moſt agreeable melaſſes, and an excellent vinegar. The ſap which is ſuitable for theſe purpoſes. is obtained after the ſap which affords the ſugar has ceaſed to flow, ſo that the manufactories of theſe different products of the maple-tree, by ſucceeding, do not interfere with each other. The melaſſes may be made to compoſe the basis of a pleaſant ſummer beer. The ſap of the maple is moreover ca­pable of affording a ſpirit ; but we hope this precious juice will never be proſtituted to this ignoble purpoſe. Should the uſe of ſugar in diet become more general in this coun­try (ſays Dr Ruſh), it may tend to leſſen the inclination or ſuppoſed neceſſity for ſpirits, for I have obſerved a reliſh for ſugar in diet to be ſeldom accompanied by a love for ſtrong drink.

There are ſeveral other vegetables raiſed in our own country which afford ſugar; as beet-roots, ſkirrets, parſneps, potatoes, celeri, red-cabbage ſtalks, the young ſhoots of In­dian wheat. The ſugar is moſt readily obtained from theſe, by making a tincture of the ſubject in rectified ſpirit of wine ; which, when saturated by heat, will deposit the ſugar upon standing in the cold.

*Sugar of Milk. See Sugar of Milk.*

*Acid of SUGAR.* See Chemistry-*Index.*

SUGILLATION, in medicine, an extravaſation of blood in the coats of the eye, which at firſt appears of a reddiſh colour, and afterwards livid or black. If the disorder is great, bleeding and purging are proper, as are alſo diſcutients.

SUICIDE, the crime of ſelf-murder, or the perſon who commits it.

We have often wiſhed to see a hiſtory of crimes drawn up by a man of ability and reſearch. In this hiſtory we would propose that the author ſhould describe the crimes pe­culiar to different nations in the different ſtages of society, and the changes which they undergo in the progreſs of ci­vilization. After having arranged the hiſtorical facts, he might, by comparing them with the religion and the know­ledge of the people, deduce ſome important general concluſions, which would lead to a diſcovery of the cauſe of crimes, and of the remedy moſt proper to be applied. Some crimes are peculiar to certain ſtages of ſociety, ſome to cer­tain nations, &c.

Suicide is one of thoſe crimes which we are led to believe not common among ſavage nations. The firſt inſtances of it recorded in the Jewiſh hiſtory are thoſe of Saul and Ahitophel ; for we do not think the death of Samſon a proper example. We have no reaſon to ſuppoſe that it became common among the Jews till their wars with the Romans, when multitudes ſlaughtered themſelves that they might not fall alive into the hands of their enemies. But at this pe­riod the Jews were a moſt deſperate and abandoned race of men, had corrupted the religion of their fathers, and reject­ed that pure ſyſtem which their promiſed Meſſiah came to Jeruſalem to announce.

When it became remarkable among the Greeks, we have not been able to diſcover ; but it was forbidden by Pytha­goras, as we learn from Athenæus, by Socrates and Ariſtotle, and by the Theban and Athenian laws. In the earlieſt ages of the Roman republic it was ſeldom committed ; but when luxury and thc Epicurean and Stoical philoſophy had corrupted the ſimplicity and virtue of the Roman character, then they began to ſeek ſhelter in suicide from their misfortunes or the effects of their own vices.

The religious principles of the bramins of India led them to admire suicide on particular occaſions as honourable. Accustomed to abſtinence, mortification, and the contempt of death, they conſidered it as a mark of weakneſs of mind to ſubmit to the infirmities of old age. We are informed that the modern Gentoos, who ſtill in moſt things conform to the cuſtoms of their anceſtors, when old and infirm, are frequently brought to the banks of rivers, particularly to