large jaw with teeth proportioned to it, with the small jaw and small teeth, why might we not have in the next generation, perhaps, the small jaw of the one, crowded with the large teeth of the other, and *vice versa*?

We throw out these questions for information, and we desire to have them answered. We have considered this subject seriously, and what experience we have had leads us to believe that these influences to which we have alluded are under-estimated in our consideration of the causes of decayed and irregular teeth. We trust we shall hear from the profession in reference to the hints we have thrown out, and our pages are open to anything touching them.—*New York Dental Journal*.

CULTIVATION OF LAVENDER.

BY CHARLES W. QUIN, F.C.S.

EVERY pharmacist who visited the International Exhibition of 1862 will remember the neat case of pharmaceutical preparations shown by Mr. W. Ransom, which won for him not only the well-deserved prize medal "for pharmaceutical extracts, essential oils, and dried herbs of superior quality," but, in addition, the private commendation of some of the leading pharmacists of Europe and America.

It was, therefore, with great pleasure that one day, just before the lavender harvest commenced, we accepted a long-standing invitation from this gentleman to visit his extensive farms and factories at Hitchin, in Hertfordshire. Choosing a cool day, we rattled down by the Great Northern Railway, through pleasant meadows and fertile fields of browning corn, to this quaint little old town, which lies embosomed amongst the beautifully-wooded Hertfordshire hills. The spot is particularly well situated for this description of farming; for, owing to the hilly nature of the district, the physis farmer has, within a small compass, many different kinds of soil at his disposal, embracing almost all the descriptions suitable to the growth of plants widely differing in their natural habitat. Arriving at the pretty little station, we find Mr. Ransom waiting to receive us. He first conducts us to his private house, which is situated on a lofty eminence overlooking a large tract of country, consisting of low wooded hills and fertile valleys. Linger for a while to examine and admire the most magnificent fernery we have ever seen, containing upwards of 150 different species growing in the most healthy and luxuriant condition, we sally forth on our ramble, which, Mr. Ransom warns us, will be a long one; for not only are the fields themselves of great extent, but, owing to the exigencies of soil and situation, several of them are separated by large intervals. Our first visit is to a large field of lavender (*Lavendula vera*) measuring upwards of ten acres. It is in full bloom, and it

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would take the pen of a Ruskin to give our readers any idea of the beauty of the sight. The long spikes of purple flowers waving backwards and forwards in the gentle wind, interspersed with the delicate greyish-green of the plants themselves, and patches of golden brown soil showing between them now and then, make up a picture worthy of the pencil of our great colorists. Mr. Ransom, however, recalls us from our reverie by telling us that he has over forty acres of this plant at present under cultivation. The lavender plant seems to thrive better on English soil than on any other. It is grown principally at Mitcham, in Surrey, and at Hitchin. At one time it was supposed that it would only come to perfection in the former locality; but during the last half century Mr. Ransom and Mr. Parks, of Hinchin, have proved that the soil and character of their farms are even still more suited to its growth. It seems to require a sandy loam, neither too stiff nor too gravelly, overlying the chalk, and measuring from eighteen inches to two feet in depth. The plant is propagated from slips cut from the old plants, which are allowed to strike out for twelve to eighteen months, during which they are carefully slipped, in order to give them a bush-like form. They are then planted out from two to three feet apart, in rows, with a space of three or four feet between them, and clipped all through the second year to strengthen them. The third year they are allowed to flower, and they continue to bear until they are seven or eight years old. The flowers, from which the oil or otto is distilled, are gathered towards the end of July or beginning of August, according to the season. The present season has not been a good one, the spikes of the flowers being only half their normal length. The English lavender, *Lavendula vera*, is indigenous to Persia, the Canaries, and the south of Europe. The reason that English oil or otto of lavender enjoys so high a reputation appears to be, that not only is the plant cultivated with the greatest care, but the otto itself is distilled by steam heat at a temperature so low as to avoid all possibility of its being contaminated with empyreumatic odors. MM. Milne Edwards and Vavasour, in their *Manuel de Matière Médicale*, enumerate three species of lavender—*Lavendula vera*, *L. spica*, and *L. stæchas*—all of which possess stimulant and tonic properties. The oil of the *Lavendula spica*, which is exclusively cultivated in France, is often offered for sale as true oil of lavender. Its odor is not nearly so pleasant, and it is only one tenth as strong as the true article. Burnett tells us that the oil of *Lavendula spica* is the more pleasant of the two. No doubt, however, Burnett means the oil of *Lavendula stæchas*, or Alpine lavender, which is also a native of France, and which has an exceedingly delicious odor, but quite distinct from that of the real otto. The ancients gave the plant the name of *lavendula* from employing its flowers and leaves to aromatize their baths, and to give a sweet scent to the water in which they washed. Although pos-

sessed of stimulant and tonic properties, oil of lavender is but little used in pharmacy. Its principal use is in the manufacture of the far-famed old English perfumes—essence of lavender and lavender water. When properly made, the essence ought to consist only of the otto or oil, dissolved in rectified spirit and rose-water; but many makers add other scents, which certainly have the effect of detracting from the peculiarly refreshing character of this odor. The ordinary essence is made by dissolving the otto in rectified spirit, in the proportion of six ounces to one gallon. The best essence is distilled from a mixture of otto, four ounces; rectified spirit, five pints; rose water, one pint. The best lavender water consists of a mixture of four ounces of English oil of lavender, three quarts of rectified spirit, and one pint of rose water. The method of making the otto or oil is simple enough. The flower-spikes are put into a still, containing sufficient water; a gentle steam-heat is applied, and the watery vapor rises, carrying with it the volatile oil contained in the flower-heads. The oil is afterwards separated from the cool distillate by decantation. A small amount of essential oil is also contained in the leaves and stalks of the plant, but it is so small in quantity and inferior in quality as not to be worth the trouble of extracting. A hundred-weight of the flowers yield, by distillation, from twenty-eight to thirty-two ounces of essential oil. The lavender plant is in its prime condition when it is about four or five years old. An acre of such plants will give, in good seasons, flowers sufficient for six or seven quarts of oil.—*Chemist and Druggist.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 14, 1864.

THE PRESENT POSITION OF THE SURGEON-GENERAL.—It is now some months since the active and able Surgeon-General of the United States was politely relieved from his responsible post at Washington and sent on a tour of inspection to the Southern coast. Surprising as such a move seemed to all who were conversant with the very arduous labors of his office and the immense responsibility devolving upon him, yet being fully aware that there were matters in the Department of the Gulf which could hardly help being improved under the direct eye of the master, we could not avoid thinking that the intimations which from time to time appeared in the columns of the daily press and in the pages of unfriendly medical journals, that this tour of duty was an implied censure upon his administration, were in the main merely the expressions of private malice or professional jealousy. We were unwilling to believe that a public officer who had brought order out of such chaos, who had built up such a magnificent system of military hospitals, and had shown himself equal to their maintenance,