

EFFECTS OF SOAKING SEEDS IN CHEMICAL SOLUTIONS.

I steeped the seeds of the various specimens exhibited in sulphate, nitrate, and muriate of ammonia, in nitrate of soda and potash, and in combinations of these, and in all cases the results were highly favourable. For example, seeds of wheat steeped in sulphate of ammonia on the 5th of July, had by the 10th of August, the last day of the show, tillered into nine, ten, and eleven stems of nearly equal vigour; while seeds of the same sample, unprepared, and sown at the time, in the same soil, had not tillered into more than two, three, and four stems. I prepared the various mixtures from the above specified salts exactly neutralised, and then added from eight to twelve measures of water. The time of steeping varied from 50 to 94 hours, at a temperature of about 60 deg. Fahrenheit. I found, however, that barley does not succeed so well if steeped beyond 60 hours. Rye-grass and other graminaceous seeds do with steeping from 16 to 20 hours, and clovers from 3 to 10, but not more; for, being bilobate, they are apt to swell too much and burst. The very superior specimens of tall oats, averaging 160 grains on each stem, and eight available stems from each seed, were prepared from sulphate of ammonia. The specimens of barley were prepared from nitrate of ammonia; they had an average of 10 available stems, and each stem an average of 34 grains in the ear. The other specimens of oats which were next the most prolific, were from muriate of ammonia, and the promiscuous specimens of oats were from nitrates of soda and potash—strong, numerous in stems, (some having not less than 52,) and not so tall as either the preparations from the sulphate or nitrate of ammonia.—*Mr. Campbell, Transactions of the Highland Society.*

TIME OF MANURING GRASS LAND.—What is the best time of the year for applying farm-yard manure to Grass-land? there is a great variety of opinion, as well as practice, in this neighbourhood. Most people here seem to prefer putting it on in the Spring, the objection to which is, that should the spring prove a dry one, the manure gets its goodness dried out of it, does very little good to the crop, and is a great annoyance in hay-time; others apply it late in the Autumn (after they have eaten of their after-grass,) and then vegetation being dormant, the best of the manure is washed away and carried off by the drains without being of any service whatever. Here, with the help of irrigation and stimulants, I am able to get two crops of hay in the year, and my plan is, to put in the manure from the farm-yard as soon as the second crop is cleared, say in the middle of August; if, however, the weather should be dry at the time, it is not spread, but left in the heaps until the rains set in, when it is immediately spread; and at that time vegetation is so vigorous, that it is out of sight in a very short time. It appears to do so much more good, that I think even when only one crop is obtained, it is better to lose the after-grass (or the pasturage of it) rather than lose almost all the benefit of your manure; and so great is the difference produced between manuring in August and October, that here the former has grown over, and out of sight in a fortnight, while the latter is still as visible as on the day it was applied, and the stimulus it has given to vegetation is scarcely perceptible. It is much to be wished that some of our expert operators would turn their attention to hybridizing some of the Cerealia. I think that spring wheat may be crossed with some of the more valuable kinds, and, if so, there is great reason to hope for early and good varieties.—*T. G.*

NEWS.

The papers continue to be occupied with the Queen's visit to Germany.

The Paris correspondent of the *London Times* says: "With respect to Tahiti, conquered so gloriously and 'protected' so admirably, I have received an assurance for which, perhaps, you are not unprepared—it will be abandoned."

The members of the Free Church of Scotland, who raised nearly £700,000 for new churches, are now collecting a fund to build houses for their ministers. Nearly £50,000 has been already subscribed.

It is said to be the intention of the British government to establish steam communication from Valparaiso to New Zealand, thence to Sydney, and from Sydney to Singapore.

There were 242,000,000 letters delivered in the United

Kingdom last year, by the Post-Office, being an increase of 22,000,000 over the number of the previous year. This speaks well for the cheap postage system. Before the reduction to one penny, the average number of letters annually, was only about 75,000,000.

BRITISH BENEVOLENCE.—The pecuniary results of the principal Benevolent Societies in Great Britain, according to the reports rendered at their respective anniversaries in May last, at Exeter Hall, are as follows:—

Church Missionary Society	£105,249	13	7
British and Foreign Bible Society.	85,851	17	9
London Missionary Society	82,676	9	8
Do., the Jubilee Fund	21,000	0	0
Religious Tract Society	54,104	14	2
Wesleyan Methodist Missionary Society	109,188	0	0
Colonial Missionary Society.	3,388	14	8
Irish Evangelical Society	2,641	14	10
Foreign Aid Society	5,480	0	0
British Reformation Society	1,514	4	1
Home Missionary Society	8,600	0	0
Primitive Methodist Missionary Society	2,567	0	0
Christian Instruction Society	890	12	5
London City Mission Society	9,579	0	0
British and Foreign Unitarian Society.	731	16	7
Sunday School Union Society	9,561	5	5
British and Foreign Sailor's Society	2,072	19	6
Total	£505,264	1	8

PROVISIONS (AMERICAN).—An improved demand has been experienced for Beef since our last, and at about previous rates holders have met buyers freely. The arrivals have been moderate and the deliveries good. In Pork there has also been more doing, but without any improvement in price; the stock of Irish is decreasing, which will, it is expected, cause attention to be turned to American.

THE ARCTIC EXPEDITION.—The Baretto, Junior transport, has returned, and brings very favourable accounts of the prospects of the expedition. One letter, dated July 11th, says:—"Here we are, laden and moored in a snug little cove among the Whalo Fish Islands, east coast of Greenland, lat. 69 9, long. 53 10 W. Our fellows are in high spirits and robust health. The weather is delightful. We have the sun all the twenty-four hours, and the middle of the day is really very warm, notwithstanding that from the top you can count, speaking within bounds, at least a thousand icebergs. We pursue our voyage on Monday. Large collections have already been made in natural history, especially in maritime animals, such as *crustacea medusa*, &c., several hundred in number, and a great many of a new kind." This letter, it is stated, was written by the midnight sun.

Zinc, by being melted and poured into water, has been found to assume new properties; it becomes soft and malleable, losing none of its tenacity, but is capable of being spun into the finest wire, pressed into any required form, or rolled into any required thinness. This is a discovery by Professor Faraday, and will prove of very great importance.

Wire fences are now made and highly approved in Scotland, and are said to be cheaper than those of boards, or posts and rails.

DR. D'AUBIGNE.—The *Inverness Courier* states that no less a sum than £4,000 has been paid by Messrs. Oliver and Boyd, of Edinburgh, for the copyright of the fourth volume of Dr. D'Aubigne's History of the Reformation.

It would appear that the German Governments are resolved to try their strength in opposing the new religious movements. On the 13th ult. a ministerial rescript was addressed to the censors by the Government of Berlin, most strictly enjoining them to refuse their imprimatur to all paragraphs which contain the most distant allusions to religious matters in the periodicals, which are not expressly authorized by their license to treat of religious controversies. While in the electorate of Hesse Cassel, prohibitory measures are carried to a much greater length. A Cabinet order of the Electoral Prince Regent has been published, by which the formation of German communities is prohibited in the whole electorate. Instructions were immediately sent from the department of the interior to all the provincial Governments, to carry this order into effect without delay. The propagation of the doctrines of the New Catholics is forbidden; and the police are to take care that no subscriptions and collections in their favour are set on foot