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THE INTERNATIONAL DAIRY FAIR.

The dairy fair held in this city the week ending December 7, proved to be as popular and successful as the importance of dairy industry demanded. Dairymen who had attended all the prominent butter and cheese fairs hitherto held in the country freely accorded the palm to this, as not only the most extensive but decidedly the best the country has seen. Upwards of ten thousand packages of butter, cheese, and dairy appliances were entered, representing a dozen or more different States of the Union, besides Canada and several European countries.

In the foreign exhibit of butter were casks and tubs of Danish butter exhibited at the London Dairy Show of 1878; a sample of first quality cured Normandy butter; butter made in Friesland, Holland; a sample of ordinary cured Cork butter made in Ireland last October; a cask of Leinster cream butter, from Ireland, prepared on the Dorset system of packing; samples of extra mild cured Cork butter; some first quality Kiel butter, exhibited at the London Dairy Show of this year; and a tub of cured Welsh butter that took the first prize at the recent London Dairy Show.

Almost every variety of domestic and foreign cheese was represented. The show of cattle was not large, but it included some of the most valuable cows in the country. The exhibition of dairy implements and machinery was full and interesting. The most popular feature, however, was probably the practical illustration of the processes of making creamery butter and factory cheese. Each day some 500 gallons of milk and 30 gallons of cream were converted into butter and cheese by approved processes, from the reception and weighing of the milk to the end. In no industry has greater progress been made of late years, thanks to invention and co-operative effort, than in dairy management; and already the dairy interest begins to overshadow all the other agricultural industries. The product of butter and cheese last year in this country was valued at \$350,000,000, surpassing the wheat crop by one seventh, and the cotton crop by a third. The export of these products has doubled in six years. Last year we exported 21,000,000 lbs. of butter, and 107,000,000 lbs. of cheese. This year the exports promise to reach 25,000,000 lbs. of butter and 130,000,000 lbs. of cheese. Add the value of the milk consumed to the aggregate yield of butter and cheese, the beef, leather, and other products which we owe to the cow, and some idea will be formed of the vast importance of this useful animal in domestic, industrial, and commercial affairs. Yet the dairy business of the country is comparatively in its infancy.

THE POMERANIA DISASTER.

The Hamburg-American steamship Pomerania, which left New York November 14, was sunk by collision with an iron bark, in the English channel, at midnight, November 25. The night was dark and foggy, and the ship sank within twenty minutes. Many passengers and several of the crew were drowned; and had it not been for the timely appearance of another steamer the loss of life would have been much greater. The reports of what occurred between the collision and the sinking are confused and conflicting, and, in some respects no doubt, much exaggerated. It seems to be clear, however, that two of the ship's boats were crushed in the collision, one was capsized by a rush of sailors, and the rest were seized chiefly by an unmanageable portion of the crew, who were more careful in many instances to save their luggage than to help the drowning passengers.

Several points in connection with the disaster stand out prominently. Among them, these:

- 1. The ship sank with fatal rapidity, though said to have had seven water tight compartments, not more than two of which could have been breached by the collision.
2. The undisciplined crew, as has so often happened before, were a source of peril rather than a help to the passengers.
3. Though the sea was not rough the life boats were sadly inefficient for the saving of the passengers, owing to unskillful handling and the misconduct of the crew.
4. The life buoys, though not generally resorted to, preserved the lives of those who used them properly; among them the captain, who went down with the ship, and was afterwards picked up, saved by his life belt. To several of the passengers, however, the life buoys served only to insure their drowning; they were found floating head down, the life belts having been fastened too low or too loosely.

A few practical observations suggest themselves. a. In view of the ignorance of most men and women, with regard to the nature and use of life buoys, it would seem to be advisable to make it the business of the surgeon, purser, or some other of the ship's officers, to give at the beginning of each voyage an exhibition of the proper use of the life saving apparatus provided; to be followed up by such special instruction as might be called for. The trouble would not be great, and the advantage in case of accident would be enormous.

b. The crew of every vessel carrying passengers should be thoroughly drilled, in port and out, in the exercise of lowering and manning the ship's boats. It is not enough to assign officers and crews to the several boats; they must be trained to execute promptly and surely the particular work required; they must be made practically familiar with the launching and handling of the particular boat they are to take charge of in an emergency, and this in all sorts of weather. In view of the wretched and shifting material of the crews of most ocean steamers, the need of repeated drills

of this sort at the outset of every voyage would seem to be imperative.

Still more: the safety of the passengers in case of collision, storm, or fire, will be augmented by every reduction possible in the number of coalheavers and others of the lasher portion of the ship's crew. Accordingly the work now done by such men should be turned over to machinery, as fast and as far as invention can provide acceptable substitutes.

c. Life rafts should be more generally carried by ocean steamers. Sailors have a contempt for them; yet in cases like that of the Pomerania disaster, rafts have been proved to be better than boats. By means of them vastly greater floating capacity can be carried in the space allowed for boats; they cannot be swamped in launching; they will float in any sea; and, for sudden emergencies, they are much more serviceable. It is safe to say that with a few such appliances every soul on the Pomerania might have been saved.

d. So long as it is possible to leave open ways between them, water tight compartments in ships are a delusion and a snare; they are never closed when they ought to be. To be secure, and a sure protection against fire and water, each compartment should have unbroken walls. Openings from one to another should be prohibited, the inconvenience of their entire separation from each other being amply compensated for by the superior security afforded. It might be well also to insist on the periodical testing of these compartments, if need be, by filling successively with water those not furnished for the accommodation of passengers.

Ultimately, we believe, passenger ships will be so constructed as to be unsinkable. Until then the safety of passengers in cases of accident must be provided for by the perfection and multiplication of life saving appliances and means for preventing destruction by fire, collision, and other mishaps.

In one direction very little has yet been done, and that is in lighting ships so as to make them visible through fogs and darkness, and to prevent the confusion and danger which usually attend, if they do not directly result from, darkness in case of accidents at night. With the multiplication of shipping on every sea the need of more penetrating lights for ships needs no argument. There seems to be a wide field of usefulness here for the electric light, and an opening for invention at once profitable and beneficent.

SHORT HAND.

Scarcely a week passes in which we do not receive one or more letters asking which is the best system of short hand, and how long it would take a youth of ordinary capacity to learn to report verbatim, with say one hour's practice a day. Seeing that there are a dozen or more stenographic systems in use by reporters and professional stenographers, each of which is claimed to be the best by its users, while there has never been to our knowledge any competitive test of the comparative speed and legibility of the different systems, it is manifestly impossible to answer judicially the first question. Some of the most successful stenographers have used an abbreviated long hand; the majority now use one or other of the many systems based on Pitman's phonography. There are, besides, the cursive system invented by Mr. Lindsley and called tachygraphy; a somewhat similar scheme invented by Mr. John Brown Smith, styled the chirographic system, and much praised by its disciples; Waring and Schofield's short hand; Cross' eclectic short hand (not phonetic); Melville Bell's line writing; Manseau's adaptation of the French system of Duployé; the German, or "Gabelsberger" system; and there's no telling how many others.

For those who wish to be professional stenographers, we should advise the adoption of some form of Pitman's phonography, simply because it is the most in use, and so far appears to be best worked out for reporting purposes.

The second question is even harder to answer; everything depending on the manual capacity of the learner, his sense of form, quickness, and retentiveness of memory, patience, and other personal qualities. Probably not more than one out of every hundred young men that have undertaken phonography or other short hand methods, has ever been able to report any considerable portion of an ordinary sermon or public address. It is something like learning Chinese; a few hundred words are learned quickly, but after that the tax upon the memory is, to the majority, unsurmountable. In all forms of stenography words and phrases are hinted at, never written, and that system is the best which enables the writer to suggest the most with the fewest motions.

Very skillful stenographers may "take down" perhaps two hundred words a minute for brief periods; but that does not imply the writing of so many words, or even the tenth part of them. By skillful omissions enough is set down to suggest what was spoken; and the success of some reporters in this line is really marvelous. It requires, moreover, a combination of mental and manual dexterity that not one in ten thousand has or can acquire. But this cannot fairly be called writing, since it is legible only to the one who does it, and even he cannot make out what is hinted at after the subject matter has passed from memory.

The acquisition of the skill required to report even a slow speaker involves so many conditions which cannot be determined without trial, that it is obviously impossible to answer the question put by so many correspondents. In any case, however, it will do no hurt to try the system nearest at hand. Success will bring no great reward; and failure will not be without advantage.