

CHICAGO TRADE AND COMMERCE.

Thirteenth Annual Report of the Board of Trade—The Trade in Flour, Grain, Provisions, Lumber and Highwines—Interesting Facts and Statistics.

From the Chicago Journal.

The thirteenth annual report of the trade and commerce of Chicago, compiled by Charles Randolph, Esq., the able and efficient Secretary of the Board of Trade, is replete with interesting facts and important statistics, which will be read with pride by every person interested in the commercial prosperity of this great Western metropolis. Mr. Randolph is entitled to great credit, not only for the completeness and accuracy of this report, but for the promptness with which he has prepared it. Many of the facts which it contains have, at various times, appeared in the *Journal*, but others have not heretofore been made public through the columns of the daily press, and those we make room for in the local and commercial departments of this paper to-day.

The report opens with a

GENERAL REVIEW.

which states that the past year, like the one preceding it, has not been above a moderately profitable one in most branches of business, but probably Chicago has as little to complain of in this regard as any of the large cities in the country. In most kinds of merchandise and property, a considerable shrinkage of value has been realized, largely incident to the gradual decline in gold; or, more properly, the improvement in the real value of our currency; but it is gratifying to observe that the wide spread disaster that was by many predicted as almost certain to follow our near approach to specie standard has not been realized, and, as we have about half closed the gap that existed a year since between currency and coin, it may at the close of the present or at farthest the next year find the country safely arrived at substantially a specie basis of doing business.

In the produce business the volume of trade has not differed essentially from that of the previous year, notwithstanding the fact that the wheat crop of 1869 in the Northwest was a light one, as shown by the aggregate deliveries, and the corn crop of that year was the smallest since 1863. In lumber, also, the trade has been little different from 1869. Manufacturing is steadily increasing, and seems to be attended with satisfactory results. The United States census returns for the past year show a capital employed in manufactures in the city of about \$28,000,000, with value of product amounting to over \$60,000,000, and persons employed over 20,000; but as the returns, in some respects, are so glaringly erroneous and below the true facts, the whole must be accepted as at best an approximation to the reality. Several new enterprises have been started within the year, but perhaps none that promise more substantial results for the general benefit of the city than the recent establishment of works for the reduction and smelting of the product of our mining territories.

No essential change has occurred in the amount or character of our banking facilities. Under the provisions of the law passed at the last session of Congress, authorizing to some extent a redistribution of banking facilities under the national banking act, one new National Bank has been organized in this city, and is in successful operation, and it is understood another is about ready to commence business. Money has been reasonably easy during most of the year at 10 per cent interest for ordinary business transactions; perhaps it is more stringent at this time than any time during the year, but this is believed to be but temporary, and is largely owing to the heavy amounts required to carry on the packing business, now at its height, and very active.

The census returns of population in the city, while falling somewhat short of the estimate of some, are highly flattering, showing a population of 299,227 against 110,973 in 1860, an increase of 169 per cent, in ten years, and this, too, without the absorption during the time of any suburban villages or cities, as has been the case in regard to some other large cities. The State of Illinois has increased from a population of 1,711,951 in 1860 to 2,527,910 in 1870, an increase of 48 per cent.

WHEAT.

The flour trade has been depressed and lifeless for almost the entire year. Millers have made less flour and probably at a less profit than in 1869, and that was by no means a lucrative year's business. It is a noticeable fact that the production of flour in this city shows a decline during both the past two years, and the falling off in receipts from the interior is also quite marked. This cannot be attributable to the lack of wheat from which to manufacture it, as our receipts of wheat have steadily increased, but the relative prices for flour and wheat have been in favor of the latter. This is almost always the case when there is any considerable demand for the export of bread-stuffs, shippers to Europe seeming to prefer the grain.

Considerable more flour has been purchased in this market for direct shipment to Europe during the past year than in 1869. The establishment of grades of flour, referred to in my last report, has not as yet come into general appreciation, and nearly all flour is still sold by sample. Early in the year, samples of our standards were sent to Liverpool, Glasgow, and Edinburgh, and no doubt their exhibition has tended to turn attention to our market to some extent, but purchasers generally prefer an inspection by special sample.

The receipts for the year have been 1,766,037 barrels, and the city manufacture 443,976 barrels, against 2,218,822 barrels received, and 543,285 barrels manufactured, in 1869, a falling off in the number of barrels handled of 562,994.

WHEAT.

The receipts of wheat for the year have been 17,394,409 bushels, over 500,000 bushels in excess of 1869, and more than any previous year in the history of Chicago. The amount received from the crop of 1869, from January 1 to August 1, was less than was anticipated a year since. The quality did not improve with the later deliveries, and, in fact, but a comparatively small percentage of the wheat received here, prior to the new crop, was in strictly sound condition.

Prices were maintained in this market at a point, considering the condition of the property, that caused buyers for shipment to act cautiously and slowly, hence the stock in store was kept up from 1,750,000 to 2,000,000 bushels, until after the middle of July, and a large portion of this had remained in the bins for from six to eight months.

The crop of spring wheat for 1870, while probably not a large one, is, as compared with that of 1869, of very superior quality. The receipts since August 1 have been 10,209,044 bushels; corresponding time last year, 7,610,926 bushels. Many familiar with the facts, estimate that a larger percentage than usual has been marketed during the autumn months, and hence conclude that our receipts hence to August 1 will be no larger than last year. The high character of the wheat received at this point since August has sensibly improved the reputation of Chicago as a desirable market.

The Agricultural Bureau at Washington estimates the product of the principal wheat-producing States at considerably less than in 1869.

Prices at the close of the year are strong at \$1.08 a 1.09 for No. 2 spring, and many predict a much higher range before spring.

CORN.

The corn crop of 1869 at the West was small in quantity, and generally of inferior quality, yielding in a less surplus for market than was anticipated a year since. The receipts at this point for the year have been 20,189,775 bushels, against 23,475,700 bushels in 1869, the decline being nearly all in the receipts by canal—the crop in sections tributary to it having been apparently relatively smaller than in other sections of this State. Prices have remained remarkably uniform during most of the year, gradually settling as the new crop approached a condition fit for market. City consumption has been larger than last year, mainly owing to the increased distilling. The crop of 1870 appears to be of fine quality, and is believed to be the largest in this State since 1865. Since it was in condition for market the movement has been liberal, much of it passing into immediate consumption; but during the past few weeks considerable has been stored, under the belief that it will keep safely until spring.

The Agricultural Bureau estimate places the entire crop of the country for 1870 at over 1,100,000,000 bushels; the same estimate of the crop of 1869 was 884,000,000 bushels, the principal increase being in the Western States.

OATS.

The production of oats by Western farmers seems to be in less favor than a few years since. Receipts for the year have been 10,472,078 bushels; the previous year, 10,611,940 bushels. The quality of the last two crops has been fairly good, that of 1870 rather the better. Prices have ruled rather low as compared with recent years, and generally dull, with an almost entire absence of excitement during the whole year.

RYE.

Receipts of rye have been 1,093,439 bushels; in 1869, 913,629 bushels. The trade has been quiet and lifeless, local consumption small, considering the amount of distilling in the city, the place of rye for that purpose being supplanted by inferior grades of wheat to a considerable extent. The shipments have been much larger by lake, and less by rail, than in 1869.

BARLEY.

The crop of Western barley harvested in 1869 was poor in quality and injured in harvesting, very little of it being of quality desirable for malting, hence Western brewers drew supplies from the East, largely from Canada. The receipts of 1870 have been 3,355,653 bushels, all, except a small portion before harvest, being of Western growth. The crop of 1870 has proved the largest and best ever grown at the West.

PROVISIONS.

The market for pork product since the beginning of the year has been marked by a steady and healthy demand. Stocks have been light at all prominent points, and the consumptive requirements have gradually absorbed the offerings, so that at the beginning of the present packing season all markets were nearly bare. The number of hogs to be received here during the week to purchase; and whatever of discredit previously attached to our market in this regard has passed away, present packing season promises to be considerably larger than last season, while the weight will be above the average of last year, probably to the extent of 18 to 20 per cent.

The number of hogs, live and dressed, received during 1870 was 1,953,372; in 1869, 1,852,382.

Beef-packing has dwindled into comparative insignificance in this city, but during the past season large numbers of cattle have been slaughtered by Chicago packers at Kansas City, and other points convenient to the pasturing grounds of cattle. The receipts of cattle have been 532,964 head; in 1869, 403,102 head.

LUMBER.

The business in the product of the forest has been much the same in volume as last year; perhaps, as a whole, rather more profitable. Prices have ruled much the same, but the expense of production was somewhat less. Receipts of lumber have been 1,018,998,685 feet, against 997,736,942 feet in 1869; and of shingles, 652,091,000, against 673,166,900 in 1869. At this writing, the stocks on hand at the close of the year have not been reported; it is, however, believed to be something less than a year since, when it was, of lumber, 277,220,260 feet, and of shingles, 56,502,000.

HIGHWINE.

The manufacture of this article, for the year, as reported to the United States Assessor of Internal Revenue, is in excess of any previous year, though very much below the capacity of the establishments in this city, several of which have been in operation only a portion of the year. The aggregate production has been 7,082,364 gallons against 5,547,341 gallons in 1869. With the present internal revenue tax, there is virtually no export of spirits, nor can there be, with the amount of this tax in favor of the foreign manufacturer.

A Double Knot—A Lively Romance of the Pacific.

The San Francisco Chronicle of a late date gives this lively story:

"It is not often that a man has the pleasure of twice courting and twice marrying the same woman, at least in this world; and we have scriptural authority for the statement that in the world to come there is neither marrying nor given in marriage. But an instance of this strange and unusual repeated courtship and duplicated marriage has recently come to light, in which the parties are San Franciscans, although not of American origin.

"Some months since a German lady of this city felt a great yearning for the Fatherland, and with the consent of her husband, who is also a German, she started on her journey to visit the land of her birth, and once more look upon the beautiful Rhine, on whose banks her girlhood had been passed, and where she first saw the comely, fair-haired youth who was now her portly husband—a husband who colored with age, as had his pet meerschaum. She traversed the long way, and whether bumping her head as she performed her modest toilet in the upper berth of a Pullman palace car, or when leaning over the rail of the Hamburg steamer, she never once lost sight (in her mind's eye) of the couplet but (loved husband, who mourned her absence in Meirische's cellar, and in vain tried to console himself with caviar sandwiches, dominoes and weiss-beer, she, poor thing, thought; but in San Francisco events of an entirely different nature were occurring. The fickle husband had listened to the Teutonic accents of designing, intriguing companions, and, fired with beer and jealousy, sought the courts and put in his prayer to be released from the matrimonial bonds which tied him to his absent frau.

"It was one bright day in Germany, when she was seated on a low stool in an arbor of grape vines, busily knitting stockings for the yellow mustached soldiers of her country, meanwhile singing 'Vaterland! mein Vaterland!' &c., that the unhappy woman first heard the painful tidings of her lord's unfaithfulness. A youth in wooden shoes and no stockings brought letters and newspapers to the industrious and loving wife. She opened them and saw that her husband had sued for a divorce.

"The paper dropped from her hand as she rolled limply from the three-legged stool, and with the exclamation, 'Mein Gott in Himmel! Was ist das?' wrung from her tortured heart, she fell, a temporary corpse, on the sward below. As the writers say when they have exhausted their powers of description, 'let us draw a veil.' We resume our narrative a few hours later, when the wife, recovered from her temporary indisposition, is bending her energies to the packing of her trunk, an inelegant but commodious receptacle covered with brass nails and iron hoops, capable of holding the wardrobe of a considerable family. Without delay she steamed across the Atlantic and sailed over the American continent, arriving at San Francisco only a few days after the decree of divorce had been granted. This fact was communicated to her; but while it cut her big heart almost in two, she did not despair. A shrewd woman, turned of forty, does not readily resign her claim to the man she loves.

"She demanded an interview, which he dared not decline—in fact, he was as ready as she. He was ushered into her presence, and she saw a changed man. The buttons were gone from his shirt, his wrist cuffs frayed at the edges, and his necktie presented a most shabby and dissipated appearance. He had grown thin (comparatively), too, and there was a rum blossom on the side of his nose. She questioned and reproached him at first, but explanations followed; all the dark suspicions were cleared away, and, with the cries, 'Mein Katarina!—Mein Fritz!'

"Like torrent from the mountain height, they rushed into each other's arms. A marriage certificate was procured without delay, and within ten days of the time when the decree of divorce was signed, the wife and ex-husband had replighted their torch at the altar, and two of the happiest mortals in the whole city celebrated their second marriage.

A Railroad Engineer Sacrifices his Own Life to Save Others.

From the Germantown (Pa.) Telegraph.

By an accident that occurred on the Pennsylvania Railroad, a few days ago, Enos J. Hoopes, an engineer, lost his life. Heroism such as Mr. Hoopes displayed on the occasion deserves more than a passing notice. The facts as we have heard them related are as follows: A car attached to a freight train bound west, had lost a wheel, and was being carried down a grade by the momentum of the train, pitching and jumping over cross ties, and making the fire fly out of the stones and iron. Mr. Hoopes was coming eastward on a train with fast freight, and as he neared the wrecked train he thought he saw something wrong. It was dark, and to see more plainly he stepped to the fireman's side, which is next to the other track. Just then the wrecked car struck his engine, crushing his leg in four places, crushing his hip, tearing away half of one of his feet and knocking him, in company with the fireman and brakeman, back into the tank. Every man upon Mr. Hoopes' engine was injured. The fireman and brakeman lay senseless on the floor of the tank. The conductor of the train and the other brakemen were on the rear car and knew nothing of the disaster. The train was not so much injured as to delay its progress, and Mr. Hoopes knew that if it was not promptly stopped, it must run into the hind one of the next ahead, which would stop at a station less than three miles off for water. Mr. Hoopes, crushed and bleeding, dragged himself slowly and painfully over the prostrate bodies of his comrades to the throttle valve of the engine, shut off the steam, whistled down the brakes, sounded the summons for the conductor and fell back, exhausted. When the train stopped, Mr. Hoopes was trying to stop the flow of blood from his wounds by tying up his shattered leg, and said, 'It is all up with me; do the most you can for me.' He lingered until next day in great agony, which he bore with his usual bravery, and then died, lamented by one who knew him. Surely, the name of Enos J. Hoopes should have a prominent place in the history of those

who have heroically died at their posts in the conscientious discharge of their duty.

The War.

From the Philadelphia Ledger.

At no previous time since the commencement of the war has the cause of France seemed so desperate a condition as it would appear by the late advices. When the Emperor surrendered himself at Sedan, the disastrous day for him was, in many minds, a propitious one for France. The impression in this country, at least, was that the war was one of Louis Napoleon's seeking, and that, with his fall, it would soon be brought to a close. The Emperor himself declared that it was a popular war; that it was one into which he was driven by the demands of the French people. Certainly events since have not refuted this declaration. For there is not in all history the record of hostilities more gallantly maintained against repeated and continuous defeat. Whatever may be alleged of the inefficiency of the French new levies; whatever may be deduced as to their conduct in battle, from the circumstance that victory is a stranger to their arms in this struggle; there is one consideration which indicates anything but deficiency in courage. And that is the readiness with which the French forces have returned to the contest when all the antecedents of the war have almost assured them of defeat. They have fought with desperation. Their long roll of dead and wounded shows a desperate spirit of resistance. All this would seem entirely confirmatory of Napoleon's declaration. Had it been a contest into which the Imperial Government forced the nation, certainly that nation, while destroying his images and defacing his effigies, would have discarded his measures. Napoleon is declared deposed. But the war has been maintained with extraordinary vigor, and Paris has submitted to siege in a spirit which should disprove the charge that the French are incapable of endurance. The French people have in this persistence vindicated the declaration of the Emperor that the war was not an Imperial, but a national undertaking.

"What possible reserve of expedients Trochu may have; how 'out of the nettle danger he may pluck the flower safety;' what supreme expedient he may have left for the last crisis, cannot be imagined. The probable state of things is, that he has no latent resources or untried expedients, but that the struggle is now one of simple desperation. To all the other disadvantages must be added the fact that Paris cannot act in concert with the nation outside of its fortifications. The city lies entirely at the mercy of the besiegers, unless the French forces outside can raise the siege. Of this the defeat of Chanzy leaves no hope. The sorties of the garrison of Paris are only brave, but useless rushes upon death or defeat. Meanwhile the rain of projectiles from the Prussian batteries is destroying the lives of soldiers and non-combatants alike, and the treasures of art and the triumphs of peaceful science are reduced to a wreck, less sad only than the loss of life and the ruin of the people for generations. Everything now indicates such a national humiliation and complete conquest as takes the memory back centuries for its parallel. Even peace now would seem to introduce domestic anarchy as the ruinous complement of foreign war. If ever there was a time for the decided intervention of the other European powers, the present is such a time. France should be saved from suicide, and made to understand that her anomalous position relieves her from further hopeless resistance. And Prussia should be induced to withhold blows upon a fallen antagonist too madly brave to confess defeat. As it is, a fearful amount of national enmity is garnered, and every day's continuance adds to the dreadful legacy of hate which both Prussians and Frenchmen will bequeath to the coming generations.

"PARIS FARE.—The *Patrie* gives a list of Paris prices on the 17th inst.: Asses' flesh was 2f per pound; mules', ditto; a cat, 8f; a dog, 10f; duck, 20f; chickens, 15f; mutton kidney, 2f; mutton cutlets, 1f 50c; eggs, 1f each; butter, 15f to 20f per pound; sausages, 50c each; turkey, 30f; goose, 40f; pike, 25f; leg of mutton, 12f; coffee, 3f per pound; sugar, 80c; salt, 1f 50c; pepper, 1f 50c; lard, salad oil, 5f; lamp oil, 2f 50c; candles, 2f. The restaurants, it adds, were open as usual, the only difference being that, while fowls, mutton and beef were still eaten in the first-class ones, the flesh of horses, asses, and dogs was consumed in second rate, and cat and rat in small establishments. Some restaurants give their customers the choice of chicken wings, fillets of ass, and legs of rats. At one time the venders of singing birds, domestic and foreign, tried to introduce a taste for them among the Parisians, but there was such a burst of indignation and such horror expressed by the ladies that the idea was abandoned. Almost everywhere, accordingly, birds, whether at liberty or caged, continued to sing without molestation.

"SCIENTIFIC KNOWLEDGE.—Lord Palmerston, it is stated, diligently read, and, so far as he could, mastered the scientific publications of his time, and kept pace with all modern discoveries. Some critics think that the scientific bent of his mind was no advantage to him as a statesman. A sounder opinion is, that his scientific pursuits were an advantage, not only as a sensible recreation, but as a spur to systematic thought on all subjects. There is nothing like demonstration to strengthen the mind; and there are no demonstrations so perfect as those of the 'exact sciences.' For this reason the *Ledger* aims to popularize new discoveries, and it sometimes happens that this paper has been even in point of time with the purely scientific journals, in announcing new facts in science and mechanics. This is a practical age, and consequently a period rich in valuable results.

"ICY PATHS.—The constant danger to man and beast from icy paths about the house and barn, must not be overlooked; sawdust, tanbark, coal ashes, etc., offer easy but temporary means of security. Salt, if used upon steps or anywhere, should be cleaned away, as it is bad for animals to step in the brine and then into the snow, as a temperature of nearly zero is produced upon the foot.

A Thunder Storm in January.

From the Sioux City Journal.

About three o'clock yesterday morning there were four separate flashes of vivid lightning, occurring at intervals of a few moments apart, and in each case followed by quite heavy claps of thunder, while in place of the rain usually occurring during a thunder storm, came a shower of sleet. The night was bitterly cold, and the wind blew almost a gale, and taken altogether it seemed about as inopportune a time for a thunder shower as could well be selected. Storms of this character are not unusual in this latitude during the winter season, though we believe this one was rather more marked than usual. But then there is nothing particularly strange connected with the phenomenon. However the electrical condition of the clouds is produced, the surface beneath assumes the opposite electrical state, the stratum of air between acting like the insulating glass plate between two metallic surfaces; and when at last the attraction between the two opposite electricities becomes too strong for the interposing medium to resist, they rush together, producing the disruptive discharge accompanied with the flash and report. It will be remembered that for several days previous to Tuesday the weather was warm and spring-like. During this time evaporation was progressing at a rapid rate, and an unusual amount of electricity was thereby generated. The weather then turned cold, and the bare frozen earth assumed the opposite electrical extreme from the clouds, until on Tuesday morning the attraction between these opposing forces became sufficiently strong to break through the interposing stratum of air, and produce the electrical discharge we have noticed.

Cause of Unhappiness.

Harsh judgment, rough words, small but frequent acts of selfishness and injustice, sometimes poison the heart that promised to be healthy, and curse the start that promised to be blessed. There are families that possess every earthly comfort—health, money and occupation—but are miserable from the jealousy and quarreling that prevails within them. There are married couples who live in daily sorrow, not because they are in want, but because each thinks the other unkind, arbitrary, and inconsiderate. Young people sometimes marry with their eyes shut; and thus, instead of being mated with angels, as they foolishly imagined they might be, they find out afterward that they are only men and women, with the common work-a-day weaknesses and faults of their respective sex. This sham love easily gets soured, and then each reproaches the other for not fulfilling the sentimental prospects with which they entered the marriage state. Take any of the relationships of life, and we find that the greater part of all our sorrow comes from the same cause. Get any one to tell you honestly what gives him the most annoyance and discontent, and he will tell you they come from want of kindness, sympathy, and fellow-feeling. He could tell you that he would bear other things if he only met with more consideration, support, and encouragement from the people with whom he had to do.

"FISH CULTURE.—The Commissioners of Fisheries of the State of New York have issued a circular giving notice that they will furnish black bass, young bullheads, catfish, white bass and rock bass, roach, perch, sunfish and pike perch, for stocking waters in any part of the State of New York, free of expense, to all persons who will send to the breeding establishment at Caledonia, N. Y. The notice says that descriptions of the character of the lakes, ponds and streams should be given, so that the Commissioners can judge which species of fish is best adapted to them. Seth Green, at Rochester, N. Y., the superintendent of the breeding establishment in New York, seems to have acquired great skill in the artificial culture of fish, as in the circular it appears that he can raise eight species from the eggs. The progress in this branch of domestic economy has been very great in New York; and the Commissioners, Horatio Seymour, George G. Cooper and Robert B. Roosevelt, have exhibited praiseworthy activity in their attempts to stock the waters of the State with edible fish. It is a subject of great regret that nothing has been done by the Fish Commissioners of Pennsylvania. The Legislature, it is true, directed that the dams in the Susquehanna should be provided with steps, so as to allow the shad to pass upstream; but the Supreme Court has decided that the owners of the dams cannot be compelled to make the necessary alterations at their own expense. Under these circumstances, it has been contended that the Legislature would act wisely in appropriating the funds required to defray the expense of putting in fish steps; and, as the entire community would be benefited by the stocking of the Susquehanna with shad, very few objections, it is believed, would be urged against the passage of a law making a moderate appropriation for this object.—*Philadelphia Ledger*.

"THE GUN TESTS.—At the proving grounds near Pittsburgh, Pa., an inspector of ordnance of the United States Navy is now engaged in a series of experiments for the purpose of determining the relative merits of the gun cast solid and then bored, and of the hollow cast of Rodman gun. The guns now experimented with are of the calibre of fifteen inches. The ordinary proof charges were first fired. These proof charges consist of nine charges of number seven gun powder, three charges weighing thirty-five pounds each, and three weighing forty-five pounds each, and three weighing fifty-five pounds each. The ball consists of a solid shot weighing four hundred and fifty. After these nine proof charges the guns were charged with sixty pounds of mammoth powder and with a solid shot weighing four hundred and fifty pounds. With charges of the last description each of the guns is to be fired five hundred rounds. The solid cast gun has been discharged nearly the required number of times, and the Rodman or hollow cast gun has been discharged about three hundred times. In these trials over sixty thousand pounds of powder will be consumed, and four hundred and sixty thousand pounds of iron balls will be discharged.

Nearing the End.

The week opens with gloomy prospects for the French, and with unpromising indications for peace makers. The more we learn of the disasters to Chanzy's army last week the more evident it is that Prince Frederick Charles not only defeated and routed the French, but kept pressing and pounding them with such energy that there is really nothing left of Chanzy's late command but a mob of fugitives. The Germans can safely dismiss all care as to danger from that quarter, and concentrate elsewhere for a crushing attack on the remaining organized forces of the French in the field.

Meanwhile, one of the most noted, historical and aristocratic quarters of Paris is exposed to the shot and shell of the Germans. The latter are prosecuting their terrible work with that stern persistence which has been so often illustrated in the present war. They will keep all they have won and will steadily and surely advance closer and closer on the doomed city, until Trochu will have to choose between a desperate effort to cut his way out or surrender. For we do not believe that the Parisians will long endure the increasing horrors of bombardment. They may be gallant enough for a spurt of heroic effort, but they are not the sort of people to keep cool and patient after their rest has been broken by several successive nights of fierce shelling.

The Germans are evidently aware that the struggle is swiftly coming to an end. With Paris so nearly in their clutches, they are in no mood to listen to propositions of mediation. They are going to finish up their 'big job' in their own way, and to decide for themselves how the great questions of the war are to be settled. They respectfully ask all outsiders to keep their hands off, and no great power is likely to crowd them very much now.

"HOW TO MITIGATE THE EFFECTS OF HARD TIMES.—An exchange, in discussing learnedly and feelingly on the above topic, says: Just go back to first principles, that's the way. In the beginning, these hard times are, or were, the result mainly of the universal tendency of people to run extravagantly into debt. The man, to-day, who is not in debt, can coolly laugh at his neighbor's misfortunes, if he is so disposed. At all events, the hard times are as nothing—a tale that is told—to him. If people were not in debt there would be no hard times. Now, the remedy is to be found in prudence and economy—especially those of us who are in debt. Instead of buying on credit a thousand and one things which we can easily enough get along without, let us 'turn in' every surplus dollar where we owe it. Then, if we get our heads above water, let us adopt as our motto, 'Pay as we go.' That is a receipt, a specific, a panacea for everything that comes under the head of hard times. And this is equal, exact Christian justice to every man, woman and child, as well as every interest, under the sun. So note it be.

"PROTECTION OF STONE BY SALTS OF COPPER.—Dr. Robert, of Paris, recommends earnestly the use of salts of copper, as the best preservative against the weathering of stone in a moist climate; and endeavors to prove that the wasting away of sand-stone and granite is due to various causes, one of the most important of which is the development of a lichen (*Lepra antiquitatis*). This plant is so destructive that the beautiful marble sculptures in the park, at Versailles, would be completely destroyed by it, in the space of fifty years, unless precautions were taken to arrest its ravages. Dr. Robert states that the amount of weathering away of rocks of all kinds, granite not excepted, is much greater than the public generally are aware of, especially when subjected to the influence of a moist atmosphere. Thus, the obelisk of Luxor, which was brought to Paris, from Egypt, forty years ago, has become completely bleached out, and full of small cracks, while for the previous forty centuries during which it stood in Egypt no change had been produced.

"OHIO DAIRYMEN'S ASSOCIATION.—The dairymen of Ohio will hold their seventh annual convention in Wellington, Lorain county, beginning January 25. The annual address will be delivered by Secretary Klippart, of the State Board of Agriculture, on 'Dairy Agriculture.' Hon. James Monroe, of Oberlin, will deliver an address on the 'Moral and intellectual need of the agricultural classes.' Other addresses will be delivered, and there will be frequent discussions on subjects pertaining particularly to the dairy. A special feature of the convention will be the exhibition of cheese. Premiums will be awarded as follows: A premium of \$5 for the best three cheeses manufactured at any date; a premium of \$5 for the best cheese of August manufacture; of \$5 for the best of September manufacture; of \$5 for the best of October manufacture; each entry to be accompanied with a detailed statement of the method of manufacturing cheese pursued by the competitor.

"WASHING BUTTER.—Our best butter-makers hereabout do not agree with the idea advanced by one of your prominent correspondents, viz.: that butter should never be washed in water. On the contrary, they contend that it should be washed in pure cold water, and every particle of buttermilk washed out, if such a thing is possible. They say the buttermilk cannot be worked out without water, but the butter will be injured in texture, or be left soft and 'flabby.' Cold water is also indispensable in very warm weather, where the cream is apt to be a little above above 55 degrees. We believe in water yet.—*Cor. Country Gentleman*.

"DISPENSING WITH SURFACE PLOWING.—A correspondent of the *Oshkosh (Wis.) Northwestern* says he bought a field which had been plowed for twenty consecutive years, with a soil only four or five inches deep. He applied a subsoil plow, running it fourteen inches deep, then run it the other way, and then harrowed it, with an interval of a few days, and had his ground broken up without the aid of the ordinary plow. At one time he marked ground for corn by running a subsoil plow fourteen inches deep, both ways at proper distance, and planting at the crossings. He had a good crop notwithstanding a severe drouth.