SLANDER—ITS SOURCE.

Somewhere in earth, as well all know,
A well-beat way anear,
There is a sea, into which flow
The filth, the blackness, and the woe,
Which on all sides appear,

And boiling with envenomed heat,
A sickening scum composed,
Of the quintessence of deceit
And wrong, with fraud and guile replete,
Is on its breast disclosed,

That one who oft and eagerly
Drinks in this putrid draught,
Will blight each high capacity,
And hurl into society
Dissension's poisonous shaft,

All those desiring to abstain
From drinking at this sea--
This frightful source of stinging pain,
Know, Slander is the scum—the bane—
The sea is—INFAMY.

A RUSSIAN WOLF HUNT.

Wolf hunting and bear hunting are the favorite pleasures of the Russians. Wolves are hunted in the Winter, when the wolves being hungry, are ferocious. Three or four huntsmen, eached armed with a double-barrelled gun, get into a troika, which is any sort of a carriage drawn by three horses its name being derived from its team, and not from its form. The middle horse trots with his head hanging down to the ground and he is called the snow-Eater. The two others have only one rain, and they are fastened to the poles by the middle of the body, and gallop their head free—they are called the Furious. The troika is driven by a sure coachman. A pig is tied to the rear of the vehicle by a rope or a chain some 12 feet long. The pig is kept in the vehicle until the huntsmen reach the forest where the hunt is to take place, when he is taken out and the horses started. The pig, not being accustomed to this fait, squeals, and his squeals soon degenerate into lamentations. His cries bring out one wolf, who gives the pig chase; then two wolves, then three, then ten, then fifty wolves—all posting as hard as they can go after the poor pig fighting among themselves for the best places, snapping and striking at the poor pig at every opportunity, who squeals with despair. These squeals of agony arouse all the wolves in the forest, within a circuit of three miles and the troika is followed by an immense flock of wolves. It is now that a good driver is indispensible. The horses have an instinctive horror of wolves, and go almost crazy; they now run as fast as they can go.

The huntsmen fire as fast as they can load; there is no necessity to take any aim. The pig squeals, the horses neigh, the wolves howl, the guns rattle; it is a concert to make Mephistophieles jealous. As long as the driver commands his horses, as fast as they may be running away, there is no danger. But, if he ceases to be master of them; if they balk, if the troika is upset, there is no hope. The next day, or the day, after, or a week afterward, nothing will remain of the party but the wreck of the troika, the barrels of the guns, and the larger bones of the horses, huntsmen and driver.

Last Winter Prince Repine went on one of these hunts, and it came very near being his last hunt. He was on a visit with two of his friends to one of his estates near the steppe, and they determined to go on a wolf hunt. They prepared a large sleigh in which three persons could move with ease; three vigorous horses were put into it, and they selected for a driver a man born in the country, and thoroughly experienced in the sport. Every huntsman had a pair of double-barrelled guns, and one hundred and fifty ball cartridges. It was night when they reached the steppe; that is, an immense prairie covered with snow. The moon was full, and shone brilliantly; its beams, refracted by the snow, gave a light scarcely inferior to daylight.

The pig was put out of the sleigh and the horses whipped up. A wolf or two appeared; but they were timid and kept a long way off. Their numbers gradually increased, and as they gained in strength they became bolder. There were about twenty wolves when they came within gun range of the troika. One of the party fired; a wolf fell. The flock became alarmed and half fled away seven or eight hungry wolves remained behind to devour their dead companion. The gaps were soon filled. On every side howls answered howls; on every side sharp noses and brilliant eyes were seen peering. The guns rattled volley after volley; but the flock increased instead of diminishing and it was not a flock but a vast herd of wolves in thick serried columns, which gave chase to the sleigh.

The wolves bounded forward so rapidly they seemed to fly over the snow, and so lightly not a sound was heard; their numbers continued to increase and increase; they seemed to be a silent tide drawing nearer and nearer, and which the guns of the party rapidly as they were discharged, had no effect on. The wolves formed a vast crescent, whose horns began to encompass the horses. The numbers increased so rapidly they seemed to spring out of the ground. There was something weird in their appearance, for where could three thousand wolves come from in such a desert of snow? The party had taken the pig into the sleigh; his squeal increased the wolves boldness. The party continued their fire, but they had now used about half their ammunition and but two hundred cartridges left, while they were surrounded by three thousand wolves. The two horns of the crescent became nearer, and nearer, and threatened to envelop the party.

If one of the horses should have given out, the fate of the whole party would be sealed.

"What do you think of this, Ivan?" said Prince Repine, speaking to the driver.

"I would rather be at home, Prince."

"Are you afraid of any evil consequences."

"The devils have tasted blood, and the more you'll fire the more wolves we will have."

"What do you think is the best thing to be done?"

"Make the horses go faster,"

"Are you sure of the horses?"

"Yes Prince."

"Are you sure of our safety?"

The driver made no reply. He quickened his horses and turned their heads towards home. The horses went faster and faster. The driver excited them to increased speed by a sharp whistle, and made them describe a curve which intersected one of the horns of the cresent. The wolves opened their ranks and let the horses past.

The Prince then raised his gun to his shoulder.

"For God's sake don't fire!" exclaimed the driver; "we are dead men if you do?"

He obeyed Ivan. The wolves astonished by this unexpected act, remained motionless for a minute. During this minute the troika was a verst from them. When the wolves started again after it, it was too late they could not overtake it.

In quarter of an hour after and they were in sight of home.

Prince Repine thinks his horses ran at least six miles in fifteen minutes. He rode over the steppe next day, and found the bones of more than 200 wolves.

GILDING.—Leaf gold is cemented to glass by saliva or a week solution of gum arabic. Letters of gold may thus be easily put on and allowed to adhere to the glass padding them with a wad of cotton. When dry, scrape off the superfluous leaf and allow the gilt letters to remain. The same process can be performed with all kinds of metalic leaf.

LINCOLN AND THE SLAVE TRADE.

The war now being waged in the United States against the Southern legions who have so long held sway there, appears likely to be brought to a successful conclusion. Even the opponents of Abraham Lincoln acknowledge that in all human probability he will be the next President of the great American republic. They deplore the fact, but it is so patent, that, given to untruth as many of them are, they dare not deny it.

We have before commented upon the desperate endeavours made by the pro-slavery party in the North to frighten the people into voting for those men whose sole desire professedly is to save the union; but whose real wish is to maintain the supremacy of the slave interest. The most strenuous and continuous efforts have been made to persuade the citizens of the United States that so sure as Abraham Lincoln is elected, the union between the slaveholding and the non-slave holding States will be dissolved. To the people of the South, the Republican candidate is represented as a demon incarnate, as a remorseless wretch, whose appetite for blood is as great as that once possessed by Giant Despair, or polygamic Bluebeard. They are told that he would proclaim immediate freedom for the slaves, and assist them to revenge their wrongs by murder and rapine. They paint gloomy pictures of deserted plantations, of waste cities, of slaughtered households, of Sambo and Cuffee revelling amid the ruins of former splendour. They tell of midnight meetings, of plots to preserve the union contrary to the wish of the South, of plots to destroy it contrary to the wish of the North. They print seditious speeches and start seditious stories. They are playing a desperate game, their all is cast upon the die. No lie is too atrocious for them to tell, no trick too despicable for them to adopt. But their best efforts are in vain. No one believes them. The people are sternly, resolutely bent upon putting an end to the rule which has so long disgraced their country.

But while we are far from believing that the election of Lincoln to the Presidency will cause a dissolution of the union, we are not prepared to look upon the difficulties with which he will meet as either few or contemptible. His friends urge that his administration will be more Conservative than that of his competitors could have been. They will not admit at this election time that the enforcement of the principles of the Republican party will bring them into violent collision with the slaveholders. The non-extension of slavery involves hostile actions against any Southren State where slavery already exists; and, therefore, no aggression. But though this may be the case with respect to the particular doctrine in question, it must be borne in mind that the leaders of the Republican party hold upon many points opposite opinions to the leaders of the South, which will openly have to be dealt with, and which in the dealing involve more or less difficulty. For we cannot suppose, when Mr. Lincoln is installed in office, that he will forget all his professions; bow before the slave power and carry out the wishes of those who are now his adversaries, as unscrupulously and with as little regard to law or practice as the present occupant of the Presidental chair. On the contrary, we believe, and we hope that while he will do all he rightly can to conciliate the South, he will at least not flinch one jot or tittle from the enforcement of the principles and policy which have been advocated by his party and himself.

By the law of the United States the slave trade is piracy, and all those engaged therein liable to the severest punishment. Many agreements, too, have been made with Great Britain in which it has been stipulated that every effort should be used to suppress the horrid traffic, and if possible to destroy it. But we all know how small a share has been shown by the United States. True, American vessels have been placed upon the African stations and in the Mexican Gulf, nominally for the purpose of carrying out the treaty. But the whole thing has been a farce. A slaver now and then has been captured to keep up a show of activity, and occasionally a suspicious looking craft has been seized in a northern port, generally to be allowed to proceed upon her unlawful mission. Knowing how well it would please the Executive of the United States, the federal officials have connived at the traffic, and have never found out anything at all until forced to do so by Republican busybodies. And as for the officers of the fleet, had they manifested as much supineness as they have hitherto done, contrary to the desires of those who have controlled them, one and all would have been cashiered and stripped of their uniforms. The Democratic papers are continually boasting of the increase of the slave trade, while the buyers and sellers of humanity laugh at the puny efforts put forth by the Executive to bring them to justice. It is a notorious fact that by far the greater part of the vessels employed in the infamous traffic are American, built in American ports and there fitted out under the very nose of those whose duty it is to seize upon upon them. The argument used by the defenders of James Buchanan has hitherto been that Spain is alone to blame—that if the carrying of slaves by Spaniards were punished, the trade would soon be at an end. But it appears unquestionable that few Spanish vessels are really engaged, even in supplying Cuba with Africans. To America belongs the equivocal honour of the business. To the enterprising citizen of that country the Spaniards look to maintain their stock.

We cannot believe the plea that the United States is wholly unable to stop this traffic. It may be that her utmost exertions would not destroy it, but none can doubt that if James Buchanan were in earnest, much could be done. It was asserted that he was powerless to stop the piractical expeditions of Walker, but no one thought of believing so poor an excuse. Abraham Lincoln would have stopped him and Abraham Lincoln we have hope will do something towards stopping the slave trade. There will be no shuffling, no tricking, no equivocation with him, we imagine, upon that subject. He will not be terrified by Southren threats of dissolution, no hot blooded bravados will turn him from his purpose. As a patriot, as a true man, as a Republican he is bound to use all the powers vested in him by the Constitution to sweep from the seas the dealers in human blood. This is one matter upon which he cannot avoid collision with the South, if that portion of the Union thinks fit to stand in the way. Mr. Lincoln may incur great opposition and be treated to much loud talk, but if he succeeds in suppressing the traffic to any considerable extent, he will deserve, as he will gain, the approbation of the whole civilized world.—*Globe.*

It is found that for persons to acquire the wonderful dexterity exhibited by our telegraph operators, it is necessary that they should begin to learn the art while they are young. Dispatches are transmitted about as fast as a man can write, and the operator reads them by listening to the clicking of the instrument, writing the words down as they are received. Reading by the ear is found to engender fewer mistakes than the old recording process.

Flame is one of the most beautiful things in the world. Not a sunset sky in summer, not a full blown trophic flower, is more brilliant than flame; flame is the flower of fire. The ivy has no splendor like the mantling flame; it reddens like the thyrsus of the god.

MASONIC LECTURE.

On Friday evening the Hon. Philip C. Tucker, M.W. Grand Master of Vermont, delivered an able and instructive address on "the General History of Freemasonry," in the masonic Hall. The room was crowded with a respectable audience, composed principally of the brethern, a few being ladies and several strangers attracted by curiosity doubtless and a desire to receive information. Past Grand Master Bernard was seated on the speaker's right and District Master Stevenson on his left hand in the chair.

M.W. Brother Tucker having been introduced to the meeting by Worshipful Brother Stevenson, proceeded to deliver his address. After a few opening observations he referred to the general practice of the people of antiquity in transmitting their traditions to their descendents, by which means the history, manners and customs of the ancients were handed down to modern times. There were two classes of masons, the visionary and the reasonable; the former placed the orgin of the order as far back as Adam and even before the creation of the world—(laughter)—but nothing to show the nature of that organisation had been left for the present generation. (Laughter.) The reasonable portion was satisfied with a later origin corresponding to the time of the building of the temple in the reign of Solomon. He (the speaker) believe that was the period at which the first organisation of a Masonic society took place.

That noble monument reared in a time of peace to the worship of Him whom the Heaven of Heavens could not contain was the cradle of the society, and emblematic of its objects which were the establishment of peace and brotherly love among all men, and the proper training of the body and mind. But although the material building had disappeared, still the temple spiritually existed in the order. Masonry and the old Testament went together, there was nothing in either that jarred against the other. (Applause.) At first only practicable masons and architects were admitted into the order—man who built the temple according to line, having regard to science, but afterwards when they had been completed, and a dispersion of the craftsmen when placed over the surrounding countries, from the Pillars of Hercules on one side to China on the other—when men saw and admired the skill the workmen and their superior virtues, they became desirous of enrolment also, and thence persons of all professions come into the order as speculative masons. The early history of Freemasons was lost in obscurity, the cloud lifting a little in the time of St. Alban, of England, in the year of Christ 280, when they were spoken of as having been engaged in work then by him and receiving good wages. The speaker went on to give a history of the order from the above date to the reign of King Athelstan, in whose time masonry was established in England by Edwin and others, and the constitution and charges were drawn up then at a meeting in York, which had come down to 1715 when some changes were made. For a long period of time masonry prospered under the patronage of kings and great and good men, but being jealously watched by Queen Elizabeth, and discountenanced by various sovereigns it had declined in Christopher Wren's time, when it was determined to admit speculative masons. In 1721 the present Grand Lodge of England was first formed from which those of Ireland and Scotland shortly after took their origin and from which all the masonic lodges in Great Britain, America, Australia and various countries have sprung. The membership in the United States and Canada at the present time numbered 300,000, and there was scarcely a country in the world where masonry had not established itself. He hoped he had said enough concerning the history and aims of the order to show it was not of modern origin nor the creation of wicked, but ingenious men as some had stated. The miracle was that there were still some persons who believed it only came into existence in 1751 and that they were found out of the lunatic asylum. (Laughter.) The period of 2000 years during which the order was well-known in all lands, was ample enough for the discovery of deceptions of masonry if such ever existed.—(Applause.) They believed in the existence of God the Grand Creator of the universe, and the immortality of the soul and the man not believing in those doctrines could not belong to the society. They meddled not with any of the various shades of religious opinion, God, and man's immortality stood written at their portals, in their middle chamber and in their *sanctum sanctorum.* Masonry had its emblems and secrets. Those emblems such as the coffin, &c., pointed to the unsubstantiality of all things human, while others were typical of immortality. The secrets were of no consequence to the world at large, although vital to the order itself. The institution was world wide, bound together by ties of universal brotherhood, and the members are obliged to aid and assist each other in every clime under the sun—daily witnessed practical usefullness and benevolence of masonry; our members throughout the broad expense of air are bound to meet on the level and part upon the square. [Great applause.] The Worshipful brother concluded his address, of which the above is only an outline, by reciting a very appropriate masonic poem, and resumed his seat amidst hearty applause. Brother A. A. Stevenson conveyed the thanks of the meeting of their worshipful Brother, in which all present warmly concurred for the eloquent and instructive address delivered to them, after which the meeting broke up.

How to make a clean sweep. Wash him.

SHOEING HORSES.

BY GEO. H. DADD, VETERINARY SURGEON, BOSTON MASS.

REMARKS ON THE APPLICATION OF HOT SHOES.—Hot shoes as they are often applied, tend to carbonize the sole and crust, increase the temperature of the foot or feet and thus for the time induce functional derangement of the plantar system, and if the horse be the subject of an inflamatory diathesis, or at all predisposed to disease of the feet, of an acute character," the *hot* shoe may possibly—and it often does operate as an exciting cause to develop a latent affection.

In view of giving the non-professional reader some idea of the anatomy of the parts that he may exercise his own judgment in the premises I offer the following: By means of a microscope we detect on the inside of the hoof—superior and inferior parts—a vast number of perforations resembling the net work of a sleeve: these are termed "plantar porosities." In contact with these parts are the sensitive tissues, composed of slender fibres or filaments, termed papillae.—nipples—highly organized structures, consisting of cellular, venous arterial and nervous tissues. Supposing that we use a microscope which magnifies 250 *times, or diameters,* each papillary arrrangement appears of the size of four twenty-fifths of an inch, and they are to be found throughout the entire circumference of the fleshy sole; the papillæ are in contiguity with the porosities, and their function is to secrete the equivalents of organization, and thus maintains the integrity of the feet.

The porosities alluded to, are the inlets, outlets, commencements, and terminations, if the agglutinations; the latter are heated, burnt, or altered in structure, when brought in contact with a red hot shoe, hence the function of the same must necessarily be impaired,

In the *crust* or wall of the foot, the tubular arrangement is somewhat perpendicular they insiduously increase in length in a downward and forward direction, which gives length to the hoof. In the sole the tubes are horizontal, which explains the multiplication of the same; and the *modus operandi* of the physiological or natural thickening of the sole.

The tubes of the crust and sole are usually considered as continuous; consequently, if we cut or pare in the region of their junction, we not only open their canals but weaken their bond of union, and in such cases we must expect dislocation of lameninæ; which is equivalent to descent of sole known as "flat or convex feet."

Hence the red-hot shoe applied to the living tissues of a healthy foot must necessarily, contract the calibre of the porositics with which it is brought in contact and impare the function of the same.

Our readers are probably aware that moist heat does tend to relax all tissues of the animal economy, and that the reverse is the case when heat alone is applied; for example, a dry floor, or a stall-floor, strewed with saw-dust; a dry sandy beach, all abstract moisture from moist bodies; yet a *heated* shoe is a more direct absorber of moisture than either of the above and must necessarily, communicate an undue amount of calorie to the parts; by this method the foot is not only carbonized, but a *febrili* or inflammatory condition is inaugurated.

In view of sustaining the latter proposition I introduce the following evidence from a report on the subject made by a distinguished professor of the veterinary art, a resident of France. By a series of experiments, he discovered that the hoof and sole were conductors of caloric—that the conductile power of the crust was inferior to that of the sole [yet the latter often gets a pretty essential burning whenever a horse is brought to be shod,] the very part that ought not to be burned. He found, also, that it is not before the elapse of 4 or 5 minutes after combustion that the thermometer indicates the highest degree of heat to the foot. Also that the thinner the crust is the more heat becomes transmitted to the internal parts.

Having thus assured himself of the hoof's conducting power, his next object was to ascertain the amount of heat transmitted to the sensitive tissues. The facts are as follows:

From 12 experiments made on feet in view of throwing light on a subject hitherto considered as dark, the following are the results:

1st—That the ordinary shoe, heated to cherry redness and applied to a horny sole of an inch in thickness, and kept burning for one minute, the carbonized portion not being obliterated in "paring out the foot," has transmitted from three to four degrees of caloric to the villo-papillary and reticular tissue.

2nd.—The greatest amount of caloric transmitted in these experiments was felt, according to the thermometer, between the fourth and sixth minutes from the application of the heated shoe.

3d.—That the sole pared to the thickness of one-third of an inch, giving under the pressure of the thumb, and the iron, kept burning upon it for half a minute, exhibited the villo-papillæ destroyed by the caloric.

4th—That when the sole had but one-eight of an inch in thickness, and readily bent under the thumb, when the heated shoe was held upon it for half a minute, both its villo-papillæ end the surface of the reticular tissues were destroyed by the caloric.

From other twelve experiments performed with the shoe heated to black redness the following facts were gleaned:

1st.—The shoe applied to the sole upon which the burnt mark still remained, it was found to transmit in the same time more caloric to the living tissues than to the iron at a cherry red heat.

2nd.—The dull heated iron the thicknes of the iron being the same, caused a more lively and deeper burn than the bright heated one.

3rd.—These experiments confirm what was said of the Elder Lafosse in 1758, viz., that it was not the bright heated iron which oftenest occasioned the burning of the fleshy sole, but rather the iron brought to a dull and obscure heat.

"A notion has generally passed currently among persons engaged in the art of shoeing, that, if the burnt part of the sole be pared away, by means of the ordinary tools (knife and butteris), immediately after the application of the hot shoe, the burn is obliterated, with its effects at the same time. I found this, however, by placing my hand upon the burnt spot, and by testing it with the thermometer, not to be correct; and I further demonstrated its fallacy by direct experiment."

The reader will now perceive that the danger apprehended as the result of hot shoeing, is not entirely groundless; neither do the effects of the same exist only in a fertile imagination, as some writers have asserted; but there is often more truth than poetry in the matter.

Unfortunately we have a vast amount of book knowledge on *shoeing,* which often passes current as the result of scientific investigation; yet, in my opinion, the horse, and its owner, would have been better off had such works never been written.

Some smiths contend that it is necessary to apply hot shoes in order to "ascertain the *bearings,*" or rather, to discover the uneven parts which necessarily occur with the result of faulty paring. Now I contend that a good workman, with proper tools at command, can make an even surface; hence a good workman has no reasonable excuse for the unnecessary application of red-hot shoes. In fact, the application of the same either shows that the smith is wedded to the errors of our forefathers, or else is deficient in skill. Now if this be true, every honest smith, who understands his business should try to dispense with hot shoeing, and consider the practice as one of the barbarisms of the ancients, whose policy was, "never to forget what they had learned and never to learn anything new."

Some smiths I am informed, merely apply the heated shoe for the purpose of carbonizing, and thus softening the sole and crust of the hoof so that it can easily be pared; this I think, is a very lame excuse; for in most cases, too much of the same is removed and thus the horse has very "tender feet."

If the above is true then it apears that the intelligent and progressive smith of the present day has no rational excuse for the application of heated shoes; and he who acts according to the dictates of reason and humanity is sure to secure a good business, and the thanks of an intelligent community will be his reward.

In offering the above remarks on the practice and principles of shoeing, I have no desire to scold, or find fault with the honest smith,

"Whose brow is often wet with honest sweat,"

for it is a well known fact that lameness in horses is often attributed to faulty shoeing, when such is not the case. For example, a horse has recently been shod and becomes suddenly lame; this lameness may be obscure so that its owner cannot determine its location, and jumps at the conclusion that the lameness has its origin in faulty shoeing, when the very reverse is the case—the animal being lame in the shoulder instead of the foot.

HORSES NEED AIR AND LIGHT.

If anything can be done to add to the comfort and health of the horse, no animal deserve more to have such an effort made. Our stables should be constructed with special reference to his comfort and health, and to these all other necessaries must yield. our fathers' and grandfathers' barns were of the wide, old-fashioned sort, with all manner of loop-holes and air-holes—between the vertical boarding you could put your whole hand. They were originally tight, but when well seasoned, there was light without windows, and the pure air circulated freely; there was perfect ventilation, and yet talk with those men about the necessity of ventilating a stable, and they are ready to prove that they have kept horses all their lives, who did well, worked well were always in good health, and spirits, and that a ventillator is only a fancy idea—one of the new-fangled notions of the present generation. Our stables have been improved in architectural beauty, and in more permanent form of construction; they are pleasing to the eye, tight proof against the wind and weather, and with solid walls of brick and stone, all of which the poor horse would gladly exchange for the pure, fresh air, of which he is now deprived.

In providing for the necessities of a horse it would be well to ask ourselves how we should like to be placed in the same situation. If it is healthy for a man to live day and night in a close, damp cellar or underground apartment, then it is healthy for a horse. If it is healthy for a man to live on the lower floor in an unventilated apartment with a manure and root cellar beneath him, whose pestiferous miasmas are penetrating every crack, mingling with the foul air he breathes, and raising still higher, permeating the food he consumes, then it is healthy for a horse. But why argue against barn cellars and ill-ventilated apartments? The proof is abundant to all who want it, and he that cannot be convinced, must cease to wonder why his horses have diseases of the skin, the lungs, the eye etc., or the glanders, the grease, the scratches and the other diseases directly traceable to the impure atmosphere in which he compels them to stand and breathe.

We would, therefore, in the construction of a stable, endeavor to provide against these evils. Build root cellars and other cellars entirely distinct from barns—at least not directly under the horse stalls; let there be a free circulation of air under the floor and particularly so through the stable apartments. Ventilate the horse stable through the roof, and entirely independent of the other portions of the barn; let the connection between the horse-stable and hay-mow be closed tight, except when hay is being delivered. Ventilate the carriage-house through the hay-mow and roof. Let your horses heads be toward the side or end of the barn and provide the head of each stall with a fair-sized window; a horse wants, under all circumstances whether tired, sick or well, plenty of light. When there is light and plenty of fresh air, it is a common practice to turn the stalls the other way and keep the horse somewhat in the dark. A good horseman knows that a horse enjoys light and fresh air as much as he does himself, and he will thrive better the coldest winter on the lee side of a hay-stack, than in a badly ventilated barn, however comfortable it may be otherwise. It is stated that if the gases exhaled from a horses body were confined around him by a gas-tight bag, they would cause his death in twenty-four hours, allowing him at the same time to have his head out and to breathe pure air. If you want satin-skinned horses, in fine health and spirits, ready at all times for work or to drive, a thorough system of ventilation will be one very important step toward it.

A manure shed should be built outside the stable, and sufficient only to afford protection from wind and rain, with a door connecting with the barn, and running to the floor of the stable, which should only be open when the stable is being cleaned. The exhalations of the manure heap are then not permitted to return to the stable, nor should any of the gases generated in the stable be allowed to pass into the carriage-room or hay-mow. As a matter of economy, it is just as cheap to build a stable calculated to give a horse the greatest amount of comfort, as to build it in any other way. Cellars are handy arrangements, and in the first cost, it may be cheaper to put them under the barn, but a few years' experience will show the heaviest balance on the debit side.—*American Agriculturist.*

A VERY REMARKABLE DOG.—They boast of a remarkable dog down in Alabama. He is a small dog, rather on the fice order, but for three years, with only three or four exceptions, rain or shine, hot or cold, with company or without, he has not failed to attend divine service every Sabbath at the neighboring church. He seems to know instinctively when the time comes. It happened once that the dog had gone in the early part of the week to spend a few days at a house some miles from home. When Saturday evening came, however, he went home, and as usual, on the next morning, presented himself at church. It makes no difference whether any of the family go to church or not, he is always at his post. Moreover, when there, he behaves himself as a good dog should. He stations himself near the door, and if any profane hog or cow comes rambling too near, he as noiselessly as possible drives them away. And what is remarkable, considering the custom prevailing in many of our churches, he has never been seen to laugh or talk, or to attract attention or disturb the service during the whole time.

AIR.

No fact is better understood than that of the necessity of air for securing life and growth to crops; but the function of the atmosphere, and all the advantages arising directly from its influences, are not so well comprehended.

The face of nature is continually giving off excrementory matters, which are taken up in the atmospheric ocean and carried from place to place; the falling of dews and rains abstracts these from the air and returns them to the earth for re-assimilation. during a drouth the moisture parted with from the soil prevades the atmosphere, which, in circulating through well and deeply disintegrated soils, is brought in contact with particles colder than itself, and not only deposits moisture upon their surfaces but this moisture is fully charged with those volatile matters which act as an excitant, enabling water to dissolve the inorganic portions of the soil. In Winter the water occupying the immediate surface becomes frozen, thereby destroying thousands of insects; when thawed in early spring it has the capacity of receiving many times its volume of such gases as are given off by decaying vegetation, and carrying them into the roots of new organisms for re-appropriations. The motion of the atmosphere above the surface of the earth not only takes away excessive heat from plants, but as it passes over the leaves and other termini, it causes partial vacuum in the capillary tubes of each plant, thus receiving the elevation of moisture received by the roots. It is the medium by which the *farina fecundi* of plants is carried from place to place and when trees and plants are swayed by its motion it renders each in degree an Hungarian pump, with every capillary tube acting as a distinct pump barrel for the elevation of fluids from the soil into the body of the tree, where the endosmose action detain them. By this infinite mode of analysis the primaries and proximates necessary to build up certain portions of the plant are supplied permitting other matters in solution to pass on and in turn to deposit themselves where needed. The refractory force of the atmosphere prevents the sun's rays from being destructive to plant life. It is the vehicle of the organic excretia, as well as of water, and while the surface of every particle of soil to the depth at which the atmosphere can circulate, is covered with moisture by its presence, it furnishes to these particles the necessary gases for securing such chemical changes which will gradually convert the inorganic and inert portions into suitable pabulum for plant growth.

We need not explain its exosmose action for every leaf gives evidence of the importance of this function. To animals it is still more important than to plants. By respiration oxygen is supplied to the blood; indeed, no function of the animal economy can perfect itself without the presence and sustenance of atmospheric air. Even when dilated, as at great elevations, still the animal respires the larger bulk to get the same amount of oxygen, and the very atmosphere that in its delated condition abstracts the heat at the mountain tops and creates their caps of snow, when descended to their base is compressed in figure and gives out as present heat, that which was before latent thus increasing the verdure of the valley. None of nature's laws could be exhibited without the intermediate office performed by the atmosphere. The very life-principle, would be inert without it; men, animals and plants, would cease to exist, and the universe itself would become a caotic mass of death and darkness.

SALT AS A MANURE.

BY PROFESSOR J. MAPES.

'W.H.' writes us for information on this subject. We have already repeated in the Working Farmer what we have to say, an hundred times, and still we feel warranted in referring again to the subject, on the special application of 'W.H.'

Salt is composed of chlorine and soda, and most soils are deficient in both these elements. And in addition to each of these being a direct pabulum for plants, where present in the soil their combined effect in rendering water a more perfect solvent for the organic matters contained in the soil itself, is invaluable. Small doses of salt may be applied to fallow land, with profit, and where large quantities of weeds exist and are difficult of extermination, salt may be applied in large quantities so as to render the whole soil sterile for a time; the following year it will be found to be fertile and the weeds quite removed. If it refuse crops, a dressing of lime will change the salt into chloride of lime and carbonate of soda, so that with a cleaned soil full crops may be grown. The remedy for over-salting is lime; the remedy for over-liming is salt. In all inland districts the salt and lime mixture we have so often described is an excellent manure. In the making of composts, small quantities of salt may be used with great advantage, for while the excess quantity prevents decomposition, a moderate quantity will accelerate that species of decomposition known as endosmose. Salt to land is as good an excitant as ammonia.

During the reign of George III., the English farmers used salt at half a guinea per bushel, while American farmers supinely refused its use at eight cents per bushel.

Our Canal Commissioners are exercising a large amount of stupidity, in causing salt to pay full canal tolls when required for agricultural purposes. No turnpike in England, Belgium, or France, is permitted to charge toll on salt, when being transported to be used as a manure. Why is it that with all our Yankee shrewdness, we should fail to perceive that the amount of produce which would necessarily be transported on our canals and railroads, is many times as great as the amount of salt necessary to secure its production? Land replete with chlorine and soda, to the amount called for by nature's laws to secure the production of full quantities of plant-life, is less subject to drouth than lands containing short quantities of such constituents. Why should our public functionaries, having charge of the great public works, remain unconscious of these facts? If they would spend one tenth the time now occupied with political intrigues, in investigating this subject, the State of New York might be benefitted millions of dollars by their cogitations.

DRAINING AND RECLAIMING SWAMPS.

We recollect reading an anecdote of a traveller passing through a portion of Kentucky where swamps prevailed; a habitant of an upland portion bordering these swamps was leaning over his gate, pallid and reduced by fever and ague. The traveller was observing him sharply. 'Stranger,' said the inhabitant, 'don't think I'm such a tarnal fool as to own this land; I only hire it.'

But what shall we say of farmers who own land and swamps adjoining, having a sufficient outlet to enable them to be underdrained. Near our farm is a cove-bearing an inferior quality of grass; a stream running through its centre, occasionally overflows the flats on either side. The cove is exposed to the scorching rays of the sun, and is surrounded by highland. The owners of the cove meadow have been compelled to abandon the grass, rather than subject their workmen to billious fever, fever and ague, &c., consequent upon their exposure while mowing it. During the last session of the Legislature an act was procured, authorising the damming of the lower end of this cove, so as to create a lake four feet deep, thus overflowing nearly an hundred acres, and doing away with the miasma consequent upon the exposure of so large an amount of wet surface. Already, in advance of building this dam, the land around the proposed lake is doubled in value, and as the supply of water is sufficient to continuously overflow the dam, there is no doubt that the whole neighborhood will be rendered entirely healthy.

In many portions of county, meadows, exist, which are valueless for want of underdraining, In some districts the rise from the stream passing through the centre of meadows to the upland is fully sufficient to drain them entire, by passing a mole plow from the stream to the upland, forming a succession of under-drains according with the slope, so as to prevent excess moisture from existing in the soil. Dr. I. Marshall Paul has so under-drained a portion of the great meadows of Sussex, New Jersy, and in many districts his example has been followed with profit. These lands, which he purchased for a few dollars per acre, are now his best corn lands. The ordinary lifting sub-soil plow will perform this office admirably. We have known portions of the country where table lands were wet, and so flat as to afford no outlet for under-draining; in such localities wells should be dug in the centre, and when of such depth as to contain six feet or more of water, drains may be carried into them with profit. Every one knows that a well containing six feet of water at a depth of thirty feet, will permit the abstraction of this six feet every hour, without causing the well to be dry; they have only to learn that a corresponding quantity may be passed into such a well, and that it will disseminate itself at its lower depth over a large district, leaving the surface comparatively dry and suited for agricultural purposes.

BEGINNING TO BELIEVE.—'Bubbles.' of the California *Golden Era,* gets off the following:

I begin to believe that, now-a-days, money makes the man, and dress the gentleman.

I begin to believe that the purse is more potent than the sword and the pen together.

I begin to believe that those who sin the most during the week, are the most devout upon Sundays.

I begin to believe that honesty is the best policy—to speculate with until you have gained everybody's confidence: then line your pockets.

I begin to believe in humbugging people out of their dollars. It is neither stealing nor begging; and those who are humbugged have themselves to blame.

I begin to believe that man was not made to enjoy life, but to keep himself miserable in the pursuit and possession of riches.

I begin to believe that the surest remedy for hard times and a tight money market is an extravagant expenditure on the part of individuals—to keep the money moving.

I begin to believe that none but knaves are qualified to hold office under Government—with the exception of a few natural born fools and lunatics.

I begin to believe that a piano-forte is more necessary in a family than meat and potatoes.

I begin to believe that a boy who doesn't swear, smoke, and chew tobacco, may be a very good boy, but is naturally stupid.

I begin to believe that if the devil should die, one half of the world would be thrown out of employment.

FORBIDDEN FRUIT—THE POTATO.—Monsieur Noel, a French agriculturalist, speaking of the introduction of the potato into France, says: 'This vegetable was viewed by the people with extreme disfavor when first introduced, and many expedients were adopted to induce them to use it, but without success. In vain did Louis XVI. wear its flower in his button-hole, and in vain were samples of the tubercle distributed among the farmers; they gave them to their pigs, but would not use them themselves. At last Parmentier, the chemist, who well knew the nutritive properties of the potato, and was most anxious to see it in general use, hit upon the following ingenious plan: He planted a good breadth of potatoes at Sablons, close to Paris, and paid great attention to their cultivation. When the roots were nearly ripe, he put notices around the field that all persons who stole any of the potatoes would be prosecuted with the utmost rigor of the law, and gendarmes were employed to watch the field day and night, and arrest all trespassers. No sooner were the new roots thus forbidden, as it were, by authority, than all persons seemed eager to eat them, and in a fortnight, notwithstanding the gendarmes, the whole crop was stolen, and without doubt eaten. The new vegetable having been found to be excellent food, was soon after cultivated in every part of the kingdom.'

PHILOSOPHY OF RAIN.—To understand the philosophy of this beautiful and often sublime phenomenon, so often witnessed since the creation, and essential to the very existence of animals, a few facts derived from observations and a long train of experiments must be remarkable. 1. Were the atmosphere, everywhere, at all times at a uniform temperature, we would never have rain, or hail, or snow. The water absorbed by its evaporation from the sea and the earth's surface, would descend in an unperceptible vapor, or cause to be absorbed by the air once fully saturated. 2. The absorbing power of the atmosphere, and consequently its capability to retain humidity, is proportionally greater in cold than in warm air. 3. The air near the surface of the earth is warmer than it is in the region of the clouds. The higher we ascend from the earth, colder do we find the atmosphere. Hence the perpetual snow on every high mountains in the hottest climates. Now when from continual evaporation the air is highly saturated with vapor, though it be invisible and the sky cloudless, if its temperature is suddenly reduced by cold currents of air rushing from a higher to a lower latitude, its capacity to retain moisture is diminished, clouds are formed, and the result is rain. Air condenses as it cools, and like a sponge filled with water and compressed, pours out the water which its diminished capacity cannot hold.

EAGLE KILLED AT SEA.—Captain Howland of the schooner *Sea Gull,* arrived at Providence Monday afternoon, from Baltimore. He reports that, on Tuesday morning, while he was in latitude 38° and longitude 74° 48 min. far out to sea, and during a gale of wind—an eagle flew against the main peak halyards, broke his wing, fell to the deck and was killed. He measured 5 feet and 4 inches from the tip of one wing to that of the other.

Statistics go to prove that tea is used more or less as a beverage by one-half of the human race—500,000,000 people. Theine is the peculiar organic principle which gives tea its value. Taken in small quantities tea is healthful; but the extract of one ounce taken per day, by one person, produces trembling of the limbs and wandering of the mind.

While Blondin was performing on stilts at Troy, last Thursday, he attempted to turn a summersault, but the crotch that sustained the rope suddenly gave way, and he fell among the seats and people below. He was considerably hurt by the fall.