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ACROSS SAHARA TO SOUDAN

THE EXPLORATIONS OF MR. GASTON MERY IN THE EFFORT TO OPEN TRADE ROUTES FROM ALGERIA.

Paris, December 10.

To make a tedious journey into Algerian Sahara, to penetrate from there to the centre of the desert, to go by slow stages to Touareg, to make transactions with unfriendly tribes and to negotiate for commercial relations between Algerian and Central Soudan, is not an easy undertaking, but such was the mission of the explorer, Mr. Gaston Mery, who set out on his uncertain expedition last February. Numerous attempts have been made from time to time to encourage traffic across the desert and to conquer and civilize the remote tribes, but the efforts have been fruitless. The obstacles in the way of a terrible journey and the indisposition of the tribes themselves to enter into anything that suggested any complications whatever have not been easy to overcome. But Mr Mery thinks that he has at last found the solution of the difficulty, and that the only thing necessary to establish a regular system of commerce between the remote parts of Northern Africa is a public high road.

Mr. Mery is an Algerian by birth, and his temperament, together with his mastery of the different languages and his thorough acquaintance with the manners and customs of the various tribes enabled him to make the journey under the most favorable circumstances. Accompanied by a guide from one of the Arabian tribes of Southern Algeria, a young Arab as a servant, and a camel driver, five camels and two greyhounds, they set out on their tedious march across the desert. Two camels were necessary for transporting the baggage and provisions. The load is fastened securely to the saddle by means of a crupper and breastband. The ordinary water bottle used for a short journey is made from a single goatskin, and is so attached to the pommel of the saddle that the rider can easily unhook it and drink without slackening his camel's pace. But the water-carriers used for long marches are much larger, holding from fifty to sixty gallons. They are made from the entire skin of a young camel, and two of these are swung across the saddle. Wallets of camel's hair contain the portable provisions, such as rice, dried dates, coffee, etc. At best, the journey is a difficult one, and is not often undertaken by the pleasure-seeker. The dangers that continually beset the way, such as simoons, robbers, attacks from wild beasts, etc., are to be expected, even in the well-beaten tracks.

An Arabian, if at all competent, generally makes the best guide in the world. He is absolutely fearless, courage being a national characteristic. There is a maxim among the Arabians, "Confront danger if you would escape it," which seems to be generally practised. Like the Indian, the Arab is a child of nature. He can steer by the stars, or even by the smell of the herbage and the sensation of the sand; and at night, when there is not a star to be seen, he can tell the time by the temperature of the sand and his locality by the taste of it. Even the proximity of water can be determined by the shade of the herbage. Unless the Arabian is able to do all this, he is not a suitable guide, for in no place in the world is it more difficult to keep one's bearings than in the desert. Every experienced guide knows every road and the location of every well. He is acquainted with all the dangers that are liable to overtake his party and the best means of preventing them, and he knows all sorts of remedies. It is absolutely essential that he should be acquainted with all the chiefs of the districts through which he is to pass, and be able to secure passports into every territory.

In a more limited sense, the responsibility of the guide is not unlike that of the reis, or functionary who takes charge of a caravan. The reis has complete responsibility of every detail connected with the journey. In matters of authority and arbitration he is as autocratic as the captain of a ship, even to the power of life and death, and his responsibilities are greater. He insures the safety of travellers under his protection from any sudden violence, even from the vengeance of personal enemies, and from penalty for previous acts. He pays the "blood money" of any traveller who meets his death through defective arrangements, and is answerable for failure of water as well as for attacks from robbers. Of course he must be a man of strict integrity and of great diplomacy in order to secure passports wherever he wishes. While the guide does not enter into any such contract, he nevertheless has the traveller at his mercy, and it is worth the while of the latter to gain the favor of the guide. The guide carries with him his abbaye, a loose sleeveless camel's hair mantle generally of a bright red color. During the daytime he is unhampered by extra clothing, wearing only the pants, which is generally of blue or white cloth striped with red or yellow, extending only to the knees. At night, however, he rolls up in his abbaye, covering his head entirely to protect him from the chilly dews and injurious effects of the moon. He is trained to sleep lightly, and is awakened by the slightest sound. During his journeys he smokes and chews incessantly. For his pipe he uses the leaves and stems of hemp, mixed with tobacco, and he chews betel, a plant possessing the intoxicating quality of hemp.

Mr. Mery had all that could be desired in the way of an intelligent guide and proper equipments, but his journey was an exceedingly tedious one. It is impossible to give all the incidents recorded by the explorer, but they were interesting and numerous, for such a journey under such circumstances must necessarily be full of unique experiences. The sand marshes which surround El Oued gave them their last glimpse of vegetation and marked the borders of civilization. Throughout their journey they had the usual experiences of camp life, enduring hardships, making sporting adventures, and all the usual incidents which would furnish material for a whole year's story telling. Soon after setting out they crossed the Igharzher, a river that in prehistoric times must have been a mighty torrent, although it is now completely dry. The bed is covered with many colored gravel stones washed down from the Hozgar Mountains. The water in the neighborhood is fairly abundant and can be reached by a well about 100 feet deep. The first well that was dug by the guide was called Hassi Mabrouka, in honor of his wife, a piece of gallantry not to be expected from an Arab. The first charitable act of the guide was to conduct the party to the encampments of his own tribe in the southern part of Algerian Sahara. These people are nominally conquered, but practically they are almost independent. Their only desire is to be let alone and allowed to remain frontier tribes instead of becoming slaves to their conquerors. Upon reaching the encampment the party were invited to a meal consisting of camel's milk made into a curdle and goat's flesh. It was necessary, Mr. Mery says, to make a pretence of eating, even at the risk of indigestion, for to refuse to accept this hospitality would be an unpardonable breach of etiquette. Then followed the presentations of the whole family. Contrary to the ordinary customs of the Mussulmans and to every precedent, the traveller was first presented to the wife of the guide. After that the children and a whole retinue of relatives; then the whole tribe were introduced and each one demanded a gift as a souvenir. The early part of the night was spent in roasting the bits of meat, which were eaten as soon as browed. The Arabs, although among the most temperate of the tribes of the desert, on special occasions spend a number of hours at their feasts. The next day the party started on toward the little rocky hills a number of miles beyond. These are small, isolated mounds about forty feet high. Their summits present generally an even, clayey plateau over which it is very difficult to march.

The average progress was about nine miles an hour, and a great deal of time is consumed by the devout companions over their daily prayers. The route led over the dreary desert, occasionally relieved by deep fissures, sand hills, rugged mountains and hillocks. The greater part of the march, however, was over the monotonous stretch of desert—a veritable sea of sand. The soil is of clay with incrustations of calcium and covered with a layer of stone of nearly uniform size, spread evenly over the soil, making travel exceedingly difficult. The ground even in the vicinity of streams was covered with the same kind of pebbles, making hunting anything but easy, particularly gazelle hunting, upon which they were obliged to rely for fresh meat.

The gazelles go in herds of from four to one hundred or more. There are several ways of killing them. Sometimes the hunter in stalking his game slips along from bush to bush, taking care to go in the direction of the wind, for the animals have an exceedingly acute sense of smell. He imitates the cry of the gazelle, and as the animal stops to listen, the hunter has a chance to approach within gunshot. Persons of rank prefer another method of killing the gazelle—that is by means of the falcon or the greyhound. Du Couret is authority for the statement that a falcon that can strike down a little gazelle is valued as a dromedary; a greyhound that can kill a middle-size gazelle is worth a good milch-camel, and one that can kill a large size gazelle is worth a blood horse.

Among the animals encountered most frequently on a trip of this kind are the jackal, lion and hyena, as well as scorpions and a numerous variety of snakes. Most of the serpents are very treacherous. Attracted by the light of the camp fire, they literally swarm out of their nests, and tourists often take this means of calling them out in order to destroy them. Not infrequently the traveller awakes in the morning to find a reptile coiled under his head or wrapped about his clothing, attracted by the warmth of his body.

The explorer also mentions coming into contact with a tribe of Hadramites, a race often confounded with the Arabs, although differing greatly from them. The Arab usually has a narrow face, a long neck, and his eyes are invariably dark. The Hadramite generally has a square face, his head is set closely down upon his shoulders, and his eyes are frequently blue. He usually wears a simple tunic in place of the generous abbaye, and sometimes even a leather apron, a form of dress in keeping with his mode of life. Unlike the Arabs, the Hadramites are industrious and energetic. They are practical and settle down to work upon their small farms like more civilized races. Instead of having a passion for horses, they are great pedestrians, and generally prefer to walk. The Hadramite saves up his money and buys something useful, as a dromedary, a wife, and finally a home. His disposition is in keeping with his other characteristics. He is dignified, truthful, simple, cordial, generous, but exacting of courtesy. He has little superstition and is generally peaceful, going to war to defend his rights, not for the sake of invasion. On the other hand, he is much more cruel than the Arab. Execution by beheading is a common penalty for ordinary offences.

Coffee drinking among these people, as well as many other tribes, is conducted in a very grave and serious manner. The decoction is turned into a sort of muddy paste by repeated boilings and stirrings, and it is sipped leisurely. Men and women alike are fond of smoking. The ordinary pipe is the long chibouque, but on festive occasions the chica is brought out. In this pipe the arrangement is such that the smoke passes through a decanter of perfumed water. The crystal mouthpiece of the pipe which belongs to the owner is replaced by a wooden one in honor of a guest. Only the best imported tobacco is used, and as it is generally moistened it requires considerable time for lighting. Smoking in this country is a time-consuming recreation. The vapor is inhaled, and the aromatic fumes are breathed slowly out and fanned downward in order to perfume the beard. After the pipe has been passed around, anecdotes are exchanged, and the more improbable the tales the better they are liked. The people are imaginative, ignorant and superstitious, and they invent the most wonderful tales and create all sorts of omens and signs. Gathered around their tents after the meal is finished and the pipe has been put away, there is an exchange of fantastic reminiscences and experiences.

Sometimes the slaves are brought out to amuse the circle by their dancing. All the dances are more or less alike. The tam-tam is the one most often described. The dancers are arranged in two circles, the men in the inner one facing the women. They begin with plaintive cries, and two of the men from opposite circles meet in the centre and engage in a sham contest or wrestling match. During this time the other dancers wind and twist their bodies into all sorts of contortions, keeping up their weird chanting as long as their physical strength permits. There is another slave dance that is not so violent, but which is almost as popular. The dancers all move slowly, the women striking together their anklets, or kerrels, making a metallic sound, accenting the beat of the music.

Mr. Mery gave a long account of his experiences in the desert. He was unable to complete his journey, as he had wished, for his companions became alarmed and refused to enter the last territory. The explorer himself would have gone all the way to Tougez-Azdier. The passports, or testimonials, which he had received all along the way, secured favor for him as far as he went. It seems that it was necessary to collect these to aid him in securing assistance for his project in Soudan. The chief of one of the tribes, Henkhof, the nephew and successor of Ikenoukhen—with whom France had concluded her commercial treaty in 1862—was particularly interested in the matter. His uncle had shown the French provinces considerable favor, the significance of which has perhaps never been appreciated by the French.

The tribes are disposed to look with favor upon the possibility of entering into commercial relations with Algeria for several reasons. They desire to put an end to the raids from neighboring tribes that enjoy an unlisputed right of way over the whole territory. They also realize the advantage of having dealings with the Algerian and French, in whose loyalty and integrity they have always had the greatest confidence. The tribes are fierce and warlike, but nevertheless they are among the most peaceable in the Soudan. They are proverbially laxest and they are affiliated with the Tedjini tribes, which, it is said, should be a consideration with the French. They have also shown commercial tastes, for from time immemorial they have kept the greater part of the traffic between Central Soudan and the Mediterranean under their control. During the last four or five years their traffic interests have increased fully five times. The European products which they import, as ammunition, cloths, utensils, spices, etc., are nearly all received from the English or German provinces, and the profits might as well be reaped by the French colonies.

Mr. Mery has expressed his desire to cover in any scheme for completing negotiations between his own country and Soudan, and this can be accomplished, he thinks, only by the building of a trans-Saharan road. There are not so many serious obstacles to this as might be supposed. Nature has done a good deal toward preparing the way, for there is a direct clearing over solid and even ground well supplied with water along the Igharzher. It is believed that this road would give Algeria the control of the entire commerce of Soudan and access to new and rich resources.

It is hardly worth while to say that the day will never come when the desert itself will be transformed. The oases may be inhabited and civilization may follow in the wake of commerce and overtake the natives in all their savagery. They may turn away from their old practices of rapine and plunder, and settling down into steady farmers cultivate the soil, which has so long been regarded as sterile and useless. As a result of their activity there may be a wave of commercial and industrial prosperity extending from the Soudan to the Mediterranean. This is what the explorer believes. His views concerning the future of Central Africa are more sanguine than those of Lord Randolph Churchill, who thought this region "infinitely worthless for all European purposes," and the whole continent under a curse.

Mr. Mery is an enthusiast, and he is willing to risk death and dangers of every sort to start the great project which will open up to Algeria and to France itself a new world across the desert.

IN A POWDER MILL.

PERILS OF THE BUSINESS DESCRIBED BY ONE WHO SHARED THEM.

One of the most hazardous callings in which a person can engage is the making of powder. The work itself is not so hard, especially in some branches, and this fact doubtless influences many men to seek employment in the various powder works scattered through the country. Once engaged in the work, the spice of ever-present danger appeals strongly to the instinct of daring inherent in the nature of most men, and they work along year after year until they are killed by an explosion that rends them limb from limb, or after a "blow-up," in which one or more of their comrades have lost their lives, their families suddenly awaken to a more forcible realization of the hazardous nature of the workaday life of the husband and father, and by reason of their united entreaties he gives up his situation and seeks employment elsewhere. But such cases are not very numerous. The rates of wages paid, considering the risks run by those employed in the "black works," are altogether insufficient to appeal to their self-interest in that respect.

The writer was born and reared near a large powder works, and several years of his younger life were passed in the employment of the company which operated them. Before the war business had been light, mainly consisting of making blasting-powder, and the explosions which occurred from time to time were small affairs. When the War of the Rebellion broke out the company at once engaged in making powder for the Government, and the works were run to their greatest capacity day and night. Many of the employes at the same time enlisted in the companies of volunteers which were raised in the neighboring city; consequently the works were somewhat crippled for workmen, as not many of the men left in that section would come to their relief, thinking they would be if engaged in the inglorious occupation of powder-making. One day, when I was about twelve years of age, I met the superintendent of the works while on my way home from school. As he drove up to me he stopped his horse and looked me over sharply. I had always stood in great awe of the superintendent, as he was one of the great men of the neighborhood and had never deigned to notice me before, and for the life of me I could not imagine how I had so suddenly attracted his attention. After a moment's survey he enlightened me.

"Jack," said he, "you are getting to be a pretty good-sized boy now. Wouldn't you like to go to work?"

"Yes, sir; I would like to very much if I could find anything that I would be able to do. I am rather young yet."

"Yes, you are young, but I think you will be able to do the work I have in mind for you. Tell your parents that if they will let you come over in the morning I will give you a dollar a day to help varnish kegs. The work is light and does not require much skill. What do you say?"

"I'll be very glad to come," I answered joyfully, for a dollar a day looked very big to me. "I guess I can talk mother over. She has a great horror of the powder mills, you know."

"Tell her there will not be the least danger where you will work. The building is some distance away from the mills; and I need more help badly."

"All right, sir; I think you can look for me in the morning," and I ran home as fast as I could to gain the consent of my parents, picturing to myself the wonderful things I would do with the money I would earn. After much coaxing and entreaty they at length consented, and the next morning I was at the superintendent' office promptly on time, to commence my career as a "powder monkey," as the employes were called in the vernacular of the neighborhood. I was sent over to the "keg house," where I found two young men at work. The one in charge took me in hand and in a short time I had mastered the subject of varnishing kegs, and taking my varnish pail and brush went to work. The keg house stood in one corner of a large yard, about two acres in extent. In the corner diagonally opposite was the "packing house," where the powder was brought after it was finished, and put in barrels or kegs and shipped. I was soon utilized by the superintendent in running errands from one building to another, and was not long in learning the process of powder making.

Powder is made of three ingredients—saltpetre, sulphur and charcoal. The charcoal is made from the wood of alder, poplar and willow; poplar wood only being used for blasting powder. The wood is put in large iron ovens, the doors of which are sealed tightly and then baked for eight or ten hours. From experience the man in charge can tell from the appearance of the tar which exudes from a pipe in the oven when the wood is thoroughly carbonized. The fire is then drawn and the oven left to cool off. When cool the charcoal is taken out and carted to the mixing-house. Here the proper quantities of the different ingredients are weighed, and put in bags and taken to the "barrel-mill." This is a large one-story building, as are all the different mills through which the powder passes in the process of manufacture. The barrel-mill is full of large, heavily built barrels, as they are called, through the centre of which, lengthwise, runs a shaft of composition metal which will not strike fire. Into each of these barrels the proper amounts of saltpetre, charcoal and sulphur are placed and stirred thoroughly; then a quantity of common marbles, such as the boys play with upon the street, are also thrown in the barrel and the opening closed tightly. After all the barrels are charged the machinery is started and the barrels revolve rapidly, the marbles thoroughly amalgamating the mixture. The noise made by the marbles as they rattle against the sides of the barrels is deafening, and would soon drive a person afflicted with weak nerves into a state of unreasoning terror. The barrels are kept in motion from six to ten or twelve hours, according to the quality of powder desired. The contents are then emptied out, a greyish-black dust, and taken to the "rolling" or "wheel" mills, of which there were three at the works in question. These mills are built with heavy stone walls on three sides, the front and roof being of light boards. The roof also slopes toward the front, so that in case of an explosion the only damage done is the blowing away of the front and roof. In this mill is a large circular pan, ten or twelve feet in diameter, and in this are two large, heavy wheels weighing seven tons each, both pan and wheels being made of composition metal. The charge for this mill—about 200 pounds of the mixture which has passed through the barrel mill—is scattered evenly over the bottom of the pan and moistened with water. Then the machinery is started and the heavy wheels roll rapidly around in the pan, and serving to more thoroughly impact the contents. When the machinery is set in motion the workman leaves the building; and with the exception of an occasional visit to see that everything is working smoothly, it is left alone until the charge is done. After a lapse of two hours the mill is stopped, the charge taken out and another put in its place, which goes through the same operation. If by any chance the mill should explode while the workman is inside, he is rarely ever killed outright, but is burned in a horrible manner, and after a few hours of intense agony his sufferings end in death. From the wheel mill the charge is taken to the "press house." Here the mixture is placed in layers with a piece of heavy canvas between each; the edges of the canvas are carefully tucked in to keep the mixture from squeezing out. After the layers have been built up to the required height, the heavy hydraulic press is put in motion, squeezing the mass into solid blocks. The layers are then removed and are now in hard cakes, about thirty inches square by one inch thick. The cakes are then carted to the "corning" mill, where they are run, one by one, through a set of heavy rollers which grind or crush them into grains of different sizes. These fall, as they come from between the rollers, upon a large sieve, which separates all which are too coarse for the largest grade of powder, and these are run through the crushers again and reduced to the proper size. The coarsest grains of powder are about the size of a pea—for use in cannon or mortars. From this mill the powder, which by this time has attained its full explosive force and is still of a grayish-blue hue, is taken to the glazing house. Here it is again put in revolving cylinders, much like those in the barrel mill, but instead of marbles a quantity of lampblack is put with it in each cylinder, and when all are charged and the machinery started the constant revolutions of these cylinders mix and rub the grains of powder and the lampblack together and against each other, giving the powder the brilliant polish seen upon it by sportsmen. Usually from eight to ten hours' time is taken up in glazing, and when the powder is emptied out of the cylinders it presents a very different appearance than heretofore during its travels through the different mills. As it lies in a huge heap upon the floor it looks like a bank of shiny black sand. The powder is now shoveled into bags with a wooden scoop, the bags are loaded upon a wagon and drawn to the "drying" house, to be thoroughly dried. Here it is spread out, in wooden frames about three feet long by fifteen inches wide, with canvas bottoms, to the depth of an inch or so. After all the day's charge is thus prepared and the frames placed in racks, leaving a space between each for the circulation of air, the room is closed tightly and hot air from a furnace in another building a short distance away is turned in. The temperature of the room soon becomes as high as is consistent with safety, and is kept at this point until the powder is perfectly dry. The process of powder-making is now completed and all that remains to be done is to take it to the packing house, where it is run through a series of sieves of different sizes, which separates the various sizes and drops them into bins from which it is put into cans, kegs or barrels as required, and stored in the magazine or shipped directly to its destination.

About three months after I began work at the mills I had been helping in the packing house one day and was to go directly there the next morning for another day's work. While I was at breakfast, just at dawn of a late fall day, there came a terrific explosion, and almost simultaneously with the report a pane of glass from the window near the table struck me alongside my face. Rushing out of the door, we saw a heavy column of white smoke rising in the air from where the packing house had stood, and the tree-tops in the vicinity were full of blazing powder bags, presenting a weird sight in the early dawn. I was soon at the ruins with a crowd of fellow-workmen and people from the vicinity and a scene of utter wreck and devastation met our gaze. Not even a stone of the foundation of the old building was left in place, but instead a hole deep enough for a cellar had been scooped out of the solid ground. The keghouse had been wrecked by the shock and flying debris and the kegs were strewn around promiscuously. The man in charge of the packing house were nowhere to be found, and a searching party was quickly organized to look for his remains. They shortly came across fragments of his body, which were scattered all over a neighboring hill side, and were gathered up in a peach basket for the coroner's inspection.

The last explosion that occurred during my experience as a powder monkey had an uncanny incident, or forewarning, as some persons would call it, connected with it, that has always been a subject of much curiosity to me. I have never been a believer in the supernatural, but the case was exactly as I will state it. One warm evening in early June I started out for a stroll after supper, and on my return, about 10 o'clock, I had to cross a bridge over a stream connecting two of the mill ponds. The corning mill was situated behind a bluff about 300 feet from the road, leaving only the peak of the roof visible from the bridge. The water looked very inviting and I was soon undressed and swimming around in the pond. After I had tired of this I climbed out on the bridge, and was leisurely dressing myself, when, chancing to glance in the direction of the corning mill, a strange sight met my gaze. There perched upon the peak of the roof was a grinning skull, the bony conformation lit up with a bright, phosphorescent light, and the vacant cavities at the eyes, nose and mouth perfectly black, gazing at me with its blank, unwinking stare. I looked at it for some time in astonishment, then finished dressing and advanced slowly until I had approached to within a short distance of it; but still it remained, with the same steady, baleful stare. I felt a cold, creepy sensation pass over me, and although not really frightened, a feeling of awe took possession of me, and turning I went slowly home, looking back now and then to see it still grinning after me. About half-past 6 o'clock the next morning the corning mill exploded, followed immediately by its near neighbor, the glazing mill. If the explosion had occurred shortly after seven the loss of life would have been large, as it was the custom of the man who carted the powder from the mill to begin his day's work at the glazing mill, and usually there were five or six, and sometimes more, gathered there about that hour every morning. But the forty-five minutes' time saved the lives of all but the man who ran the corning mill. The pond, in which I had been bathing the night before, was drained and fragments of his body were found strewn all over the bottom. After the mills were rebuilt and ready to resume operations I handed in my resignation.

ST. MICHAEL OF ABYSSINIA.

STRANGE CEREMONIES WITH WHICH HE IS HONORED BY THE ETHIOPIANS.

An interesting account is given by a correspondent of "Le Temps" of Paris of the celebration of St. Michael's day in Abyssinia. St. Michael is the patron saint of the Empire, and according to the people and their traditions, written on parchment and stored in the archives, St. Michael was an Abyssinian general. He is pictured upon a fiery steed, holding in his hand a smoking gun. Other pictures represent him in battle; a terrible encounter, in which the enemy bites the dust. An inscription beneath records this particular engagement. "Our calendar," says the correspondent, "merely mentioning him as an ordinary saint. It was difficult to believe that the Ethiopians had come to celebrate this day as a national festival, if we had not met, on our morning walk, a procession of peasants, tramps, cripples, beggars, and lepers before the doors of the Church of the Saviour (Medani Alem). Here there was a generous bestowal of alms, yet all insufficient to satisfy those whose appetites had been sharpened by long fasting. All these famished beings holding out a hand, screaming, struggling, rolling in the dust in their eagerness to obtain an extra ration. The pancakes, which represent Abyssinian bread, were snatched and devoured upon the instant. A distribution of blows from the baton more abundant even than that of the bread, for the police are not at all sparing in this regard, tempered the ardor of the more desperate, the miserable lot howling under the blows which fell upon their bare heads. After the distribution of the bread and the blows of the cudgel the ground, like that of a battle, was strewn with rags, while blood flowed by this time from the bruised limbs of these unfortunates. This stormy fray was the signal for the commencement of the festivities, all in honor of St. Michael. At an early hour the Abyssinian men and women, more devout than usual, set out toward the little Church of St. Michael, situated in the Ghenya Biet, or Treasure House, which is at the same time the magazine and depot of supplies. This is the chapel of the palace. The Chief of the Ghenya Biet is at once the receiver-general, and the curate of the private church. About half-past 9 there is a firing of guns from the Faras Magala, which is the grand City Hall. A motley crowd arrayed in white robes, striped with crimson, fills the inclosure. The Mussulmans, Hararis, Gallas and Arabs, urged by curiosity, swell the throng. Under the brilliant sun this assemblage is most picturesque, augmented as it is by the groups of pedlers and women dressed in robes of red and blue, ornamented with an embroidered cross upon the breast—a costume which recalls the fact that it is long since the Portuguese passed here. All at once the note of a trumpet, loud and solemn, echoes through space. It is always the same note, but long and piercing. As for the trumpets, they are exactly like those that herald the arrival of Rhadames, in Verdi's opera "Aida." Then come the soldiers, their rifles on their shoulders, then the deacons, then the priests. The lower clergy wear upon the head a high turban of white muslin. They hold in the hand a rattle, and the inevitable crutch. The priests of high rank are of Dalmatia, the most exalted in Africa wear a habit resembling that of the Russian priests. A dignitary—his forehead adorned with a golden tiara—whose robe is much like that of European women, carries the tabot, the sacred wood of the high altar, the ark of the Jews. Immense parasols of red and purple, bordered and tufted with various colors, swaying above this procession, dominating the multicolored silk umbrella of the priests. Two banners, resembling those carried in our processions, record the valiant deeds of the illustrious St. Michael. While the high priests range themselves along the wall of Ghenyh Biet, waving their fans toward the tabot, the lower clergy begin a series of grotesque dances, which appear anything but religious. Another fusillade is fired while the women give vent to strange cries, which sound like the whistle of a locomotive, but which, among these natives, are an indication of enthusiastic delight. Then begins a slow Abyssinian chant, ringing, nasal and barbaric, accompanied by the noise of rattles, while the dance of the priests continues more rhythmic and animated. These contortions, executed with smiles, are supplemented by the clapping of hands with the effect of castanets. Finally, the dance becomes more rapid, and we take part in a veritable quadrille in which there is nothing edifying to Europeans accustomed to the grave ceremonies of their country. This dance marks the end of the ceremony. The trumpets of "Aida" resound once more, the Ethiopian colors are hoisted above the Ghenya Biet, and the guns discharge another volley, dangerous to the eyes of the passersby; the women recommence their cries of distress, and the procession, priests, banners, litters, parasols, umbrellas, escorting the tabot, enters the Ghenya Biet, followed by the kaleidoscopic crowd.

Truly, this barbaric exhibition lacked nothing of the theatric. The blazing tropical sun overhead reminded one of an enormous calcium light, while the square of the Faras Magala was a moving mass of color. It was the first festival of any gayety at which I had been present, the Feast of the Passover and others which followed having been interrupted by the visitation of the epidemic. Throughout Abyssinia religious festivals take on a profane accompaniment of fantastic whirls and military evolutions. It is impossible to describe all that I have witnessed, and I regret to add that this spectacle, so essentially picturesque, inspired in the beholder nothing of religious sentiment or solemnity.

We are sorry to hear that a German chemist has succeeded in making first-rate brandy out of sawdust. We are a friend of the temperance movement, and we want it to succeed; but what chance will it have when a man can take up a rip-saw and go out and get drunk with a fence rail? You may shut an inebriate out of a gin-shop and keep him away from taverns, but if he can become uproarious on boiled sawdust and desiccated window-sills, any effort must necessarily be a failure.—Howell Herald.

WOOL-GROWING IN MONTANA.

CARE, BREEDING AND STATE REGULATION.

FINEST RANGES ON THE CONTINENT—DISTINCTIVE QUALITIES OF MONTANA WOOL—QUANTITY AND PRICE OF THIS YEAR'S PRODUCT — COMPETITION WITH EASTERN WASHED WOOLS.

Great Falls, Mont., Dec. 14.—It is well known that Montana wool commands a higher price than any other Western clips. Its uniform excellence has won such a reputation that the entire State product finds a ready sale in Boston, which is recognized as the best wool market in the country. This is due to certain well-defined conditions. The rolling grass-covered plateaus of Montana make it a natural sheep and cattle country. The intense cold of the Minnesota and Dakota winters does not prevail here. Chinook is the magic word that explains the climatic difference. The Indian name is applied to the west winds which temper these northern plains nearly as far east as the State line. Snow rarely falls to any great depth and animals of all kinds can "live out" all winter without hardship. This was formerly a great cattle region. But the sheep ranches, with their fences, and the newly developing agricultural regions, are breaking up the large ranges, and the greater profits of wool-growing are inducing the cattle men to transfer their interests to sheep-raising.

An impetus to sheep-raising in Northern Montana, the best section of the State for this purpose, has been given by the Great Northern Railroad, which five years ago extended its line through this region. The facility for transportation is the chief agency in transforming this former cattle range into an essentially sheep-raising country. The railroad has fostered this industry in the way of extending reasonable rates and suitable storehouses at various points. The most conspicuous object that meets the eye at the plains station of Benton is the huge wool warehouse, and at Great Falls there is a similar one. These objects are the best evidence to the newcomer that this is the great wool country of the Northwest.

Theodore Gibson, of Great Falls, who has been in the sheep-raising and wool business since its beginning in this State thirteen years ago, discussed the situation with your correspondent.

"The sheep business in this state," said he, "has passed beyond the experimental stage. It is on a scientific basis of breeding, care and State regulation. Good State laws have enabled us completely to stamp out the scab. Emigrant sheep are inspected by the state officials before being allowed to enter. For breeding Delaine-Merino rams from Vermont are mostly used. Sheep are divided into flocks of from 2,500 to 3,000, and placed under good care. Every ranch has corrals and sheds for shelter, and stacks for winter feeding when necessary. The grass is abundant and cures like hay as it stands in the fall. The rule is to cut one ton of hay for every ten sheep. This is merely done as a precaution, for it is seldom fed. The ranges are free from burrs and sand, the two elements that injure other Western wools. In consequence of these favorable natural conditions and the care taken, our sheep are healthy and grow a uniform fleece throughout the year. This gives to Montana wool its pronounced qualities, long staple and bright.

"Our wool runs largely to medium and fine medium, carrying a good deal of combing, long and short. Northern Montana clips carry a large proportion of Delaine wool. On account of its combing and Delaine quality it is substituted to some extent by manufacturers for Australian wool. Montana wool shrinks 65 per cent. It is never washed. Shearing is done on June 20. We have good natural conditions as a basis, but it must not be lost sight of that it has taken thirteen years of careful State regulations and good breeding to establish the wool-growing industry in its present commanding position."

A mammoth sheep ranch, the largest and best conducted ranch in the State, is that owned by Bainbridge S. Clark, of New-York City. It is located north of Great Falls, in Choteau County. It covers several square miles, divided into sections and wire fenced. Each section is provided with sheds, stacks and corrals for the sheep, and with houses and stables. At the headquarters office, telephone connections are had with each section. The "ranch" is as carefully superintended as a manufacturing establishment. It is under the personal management of the Clark Sons. Their wool took the first prize in the Boston market last year. They have 30,000 sheep, producing 175,000 pounds of wool. It is the example of this ranch that has to a great extent set the standard of Northern Montana wools, and is making this new section outrank the older sheep-raising districts of the State.

This year's product for the entire State was 12,000,000 pounds, as against 8,344,834 pounds for last year. In 1891 there were 1,200,000 sheep shorn; in 1892, 1,500,000. This is only the beginning. The men who are in the business contemplate nothing less than the growing of as fine grades as Australia. They assert that these plains and this climate can grow the finest wool in the world. It is their ambition to cover these plateaus with flocks of as finely bred sheep as roam over the heaths of England and Wales. The attention and study they have given the subject convinces them of its permanency and ultimate magnitude.

Men are constantly borrowing money of the banks at from 10 to 15 per cent to invest in sheep, and they make a good profit at that rate of interest. This high rate is not charged by the banks on account of the calculated precariousness of the business investment. It is not so regarded; quite the contrary. Ten per cent is the usual rate, and 1 per cent per month is charged regularly on commercial paper.

The price of Montana wool this season was 22 to 25 cents in the Boston market, and 19 to 22 cents in Montana. It was nearly all purchased by Boston buyers. James McNaughton & Co., of New-York, and Justice, Eatman & Co., of Philadelphia, sometimes send their buyers here, but their purchases are comparatively small. Another local authority at Great Falls, Mont., was approached by The Tribune correspondent with the inquiry:

"How is the wool tariff regarded by Montana sheep-raisers?"

"We want a fair protection. At present Montana wool brings 8 cents more than Canadian wool raised just over the line. There the wages paid sheep-herders is $25 per month, while we pay $40. Under the present regulations they are obliged to sell in London, the cheapest market in the world, while we sell in Boston, the highest market in the world. I suppose we could stand the competition of Canadian wool, but we don't want to. No one knows exactly how a change of tariff would affect prices. We naturally prefer that the present regulations remain, so as to make the market perfectly stable. Montana wool will always bring a good price, even against the competition of the world. I do not think a change of Government policy would seriously affect the sheep business of the state, for that would pay if not a pound of wool grew on the sheeps' backs. The sales for mutton would make it profitable."

A comparison with other Western wools is necessary to show the relatively high standard of Montana. Oregon and Idaho clips sold this year at from 12 to 15 cents, 7 cents below the Montana prices. The ranges of these States, as well as all other Western States, are poorer in grass and have burrs and sand that cut the fleece. The sheep are of inferior breeding and scab-ridden, and the clips are consequently not to be relied upon for uniformity. Dakota wools compare more favorably, as the natural conditions are more similar. The best grades of North Dakota wools were sold to some extent in Boston this year, but the greater quantity was classed with the "domestic wools" of Minnesota, and bought by Minneapolis houses at a considerably lower figure. Throughout all this region the sheep industry has been greatly stimulated in the past few years by Montana's success. Sheep are obtained here for ranches in the adjoining sections of Canada and the Dakotas, with the expectation of growing wool that will equal the Montana clips. The two conditions, greater cold and dampness, will always have to be contended against.

A local shipper says: "We used to ship by rail to the Great Lakes and then by water to Buffalo, but this year we have had such good all-rail rates, $1 65 to $1 75 to Boston over the "Soo" and the Chicago, Burlington and Northern freight lines, that it has paid better to ship by rail. There was only about 10 cents difference by water, and that was more than counterbalanced by the damage done by ripping of sacks in handling and unloading and the delays. This year the Boston consignees ordered it all shipped by rail. We recognize the fact, however, that it is the Great Lakes water competition that gives us these low rates."

It is reported that scouring works will be built at Great Falls. There are the facilities of water power and the purest water, while the large warehouse will afford storage and supply. It is expected, consequently, that after next season all wools will be washed and baled. This will enable twice the weight of loose sack wool to be packed in a car and will admit of handling and reloading for water shipment without damage. It is likely that Montana wool will then go East almost wholly by the water route. The scouring of these wools will materially change their market prices. Take the present Boston prices of from 22 to 25 cents, and add the necessary allowance for 65 per cent shrinkage and the cost of scouring. The market price will then about equal that of Ohio and Michigan wools. Montana is fully alive to the importance of making the most of her sheep and wool industry—both in increase of quantity and improvement of quality in order to make this wool a still greater factor in Eastern markets.

Another adjunct to this business is expected within a few seasons—a woollen manufactory. The finest blankets have been made in the West for the last twenty years, in California and in Minneapolis, at the North Star Mill. Neither of those locations has the advantages of raw material and water power of Great Falls. There are local capitalists who are studying this question, and as soon as the time is ripe they will make a move in that direction.

CARDINAL LAVIGERIE.

CHARACTERISTICS OF THE APOSTLE TO THE AFRICANS

Paris, November 30.

It is remarkable that the death of Cardinal Lavigerie should occur just at this time. The doings in Uganda, the campaign in Dahomey, the treaty with Morocco, the French advance upon Lake Tchad, the eastward extension of the French Congo, the embassy from the Sahara—all make Africa especially interesting, above all, to Frenchmen. At this very time the great French prelate who above all others is identified with Africa dies. It is a loss to France, for he was a devoted friend of the Republic. It is a loss to the Church of Rome, for he was one of the ablest members of the Sacred College. It is a loss to humanity, for he was the brains and the heart and the right hand of the anti-slavery cause in the Dark Continent.

The Cardinal has often been referred to as a very old man, and many pictures of him so represent him. Yet he was only sixty-seven. Probably the idea of great age arose from the fact that he attained prominence early in life, and thus has for many years been greatly talked about. He began his work as a professor at the Sorbonne, where he was a colleague of Bishop Freppel, the fiery orator of the Chamber of Deputies, who died not long ago. He was also for a time French Auditor at the Vatican. But he was restless, adventurous, militant, and when the great massacre of Christians in Syria took place, he gladly went on a mission thither, bent on carrying Christian propaganda into Islam. When the lamented Darboy, in 1863, was removed to Paris, Lavigerie was made Bishop of Nancy in his stead. But four years later he got himself made Archbishop of Algiers, and then began his real life work as the Apostle to the Africans.

The zeal with which he entered upon his work in Algiers quickly got him into hot water. Marshal MacMahon was then Governor of the colony, and his conservatism was seriously disturbed by the dashing, radical churchman. "Bother the meddlesome priest!" exclaimed the soldier; "he will do no end of mischief, with his preaching among the Arabs. I wish he might be sent somewhere else." Nevertheless, Lavigerie persisted in his work, and, being cordially supported by the Empress Eugenie, held his own against all opponents. The Pope, Pius the Ninth, did not altogether like him, either. He thought him too ambitious. But the Imperial influence was strong enough to secure his advancement. Napoleon III also liked him much. "He must be a great man," said Napoleon, "or he could