

The Crystal Spring.

The crystal spring,
The crystal spring,
So sparkling, fresh and free—
Let others praise the red wine's rays,
But the crystal spring for me:
I haste away where sunbeams play
O'er many a limpid wave
Where brightly beams the silvery spring
From some old mossy cave.

The woodland shade,
The forest glade,
Where the young bird spreads the wing,
Is still more bright for the flashing light
Of some sweet crystal spring:
Its murmurings oft so sweetly soft
Might pleasant legends tell
Of bead and prayer recounted there
By the ancient holy well.

The fresh'ning lakes
That cool the brakes
By rivers bold and free,
Where forest falls sing madrigals,
All waves have charms for me:
In youth, in health a source of wealth
Hath he who dares to sing:
Let others praise the red wine's rays
My drink's the crystal spring.

G. S. L. City, April 6, 1857. P. Hoop.

The New War in Asia—Herat.

A war is just breaking out in Asia, between England and Persia, which can hardly fail to alter the political condition of the central part of that continent, and may, when we least expect it, relight the flame just extinguished in Europe.

It is about Herat. Geographical dictionaries, gazetteers, and atlases inform us that Herat is a town of say, 30,000 inhabitants, the capital of an independent Afghan Principality, which borders Persia on the west and Khiva on the north; and we further learn, that from its situation and the fertile character of the country through which the road runs from the Caspian or Khiva to Herat, and from Herat to Candahar, it is the key to the British Possessions in India, and the natural point d'appui for a Russian army of invasion. We shall now endeavor to glean from the travels of General Ferrier, just published, the memoranda of Sir John Login, and other sources, some further details respecting Herat, and the causes of the war to which it has given rise.

The people of Herat say that their city was built by Alexander the Great. Very likely he improved and strengthened it; so excellent a soldier must have seen its strategic importance, and taken care to use it for his purposes. It became, we learn, a city of much trade and riches; when Genghis Khan took and sacked it, in 1232, it contained 1,600,000 inhabitants, every one of whom was put to the sword.

From that period to 1607, it was actually sacked and burned to the ground six times; was taken and ravaged by every one of the Asiatic conquerors of the ages we call medieval. In 1749 it was a dependency or province of Persia. In that year Ahmed Khan conquered it and annexed it to Afghanistan, and some years afterward, a grandson of this Ahmed, having appointed his step-brother Governor of Herat, it was severed from the Afghan empire, and erected into an independent Principality.

It is so still, or has been until October last; but it has had some fierce struggles to maintain its independence. The chiefs of Candahar and Cabul have attacked it with pertinacity. And the Persians, instigated by Russia, have besieged it again and again.

The greatest of these sieges was in 1838, when the present Shah of Persia marched against Herat with an imposing army. He was chiefly guided by a Russian officer, and his best regiment consisted of Russians who were called deserters. On the other hand, the Heratians were mostly directed by an English officer named Pottinger, who was the real commandant of the garrison, though only a visitor on leave of absence from his regiment. The Heratians and Persians were in fact mere shuttle-cocks for the Russian and English battalions to play with.

The siege was ultimately raised by the Persians, but not till they had half-burned Herat, and reduced its people to incredible extremities from famine and the casualties of war. From 90,000, the population fell in one year to 7000, a vast proportion of the people having sold themselves as slaves to avoid dying of hunger. General Ferrier, who visited Herat in 1845, states that in the ten months' siege the Persians spread more havoc than ought to have been caused by a hundred years of war.

The Persians repulsed, on the murder of the Shah Kamran the throne of Herat was usurped by the famous Yar Mohammed. This man seems to have possessed remarkable qualities, and to have seen through all the contending parties by which he was surrounded. He made treaties with Persia and Candahar, and quieted them; did some sort of homage to the Shah, and held the stirrup of the British Resident when he mounted his horse. By this conciliatory policy he succeeded in preventing attempts upon the independence of Herat during his lifetime. He reigned from 1842 to 1852.

General Ferrier visited him at Herat. He describes him as a tall hard-faced man, wrapped in Cashmere shawls, and wearing the Persian black cap. After they had been handed round, Yar Mohammed charged Ferrier with being an Englishman on a diplomatic journey. Ferrier protested that he was a Frenchman traveling for pleasure, but he did not quite convince his host.

This is the more easily understood when it is known that the Afghans believe that Napoleon was an English general, who fought the Russians. Yar Mohammed kept General Ferrier a close prisoner, though he treated him with great civility; sent presents to him daily, and regaled him with

the sight of his dancing bayaderes. He and his ministers were rather hurt that Ferrier would not get drunk with them.

Yar was a good soldier and a hard-working man. He was Vizier during the siege of 1838, and displayed great activity in repelling the Persians. His mode of detecting their mines was curious. Wherever he suspected the Persians were undermining the ground, he set a plate filled with small seed; the least blow of pick or spade brought down some seeds, and betrayed the subterranean operations. Every day during his reign he sat six hours on a judgment-seat, administering justice.

His decisions were uniformly fair, and his rigor in punishing robbers so terrible, that Herat was by far the safest Asiatic country to travel in during his time. For his own safety he never trusted to Providence. Six hundred men were always on guard at the palace. A trusty Indian slept across his bedroom door; the same man brought him his meals in closed dishes, padlocked. Yet he was well liked by the people.

He was cruel, like most Eastern despots. There was no mercy for people who were behind-hand with their taxes; a cobbler could not make a shoe without paying him something. Inveterate criminals were savagely punished. General Ferrier saw a poor wretch, who had committed several crimes, blown from a cannon; his limbs and head flew to a distance, but his entrails fell close to the cannon, and were greedily devoured by dogs.

The most amusing part of the society of Herat was the doctors. They get drugs from British India, and try to find out their properties by using them on patients in progressive doses. One of the ablest of them showed a bottle of cyanide of mercury to General Ferrier, and asked him,

'What devil of a salt can this be? Of one hundred patients to whom I have given it, only one was cured: all the rest died.'

A high official had his leg broken in General Ferrier's presence by a kick from a horse. The poor man fell, and fainted from the pain which his friends caused him by twisting the limb to find where the fracture was. Ferrier ran into a grocery, and asked for a glass of vinegar.

'Give me a rupee and you shall have half a glass,' said the grocer.

'Rascal and ass!' cried Ferrier; 'you shall have nothing; the sirdar is dying, and this is no time for bargaining.'

'When can I have such another opportunity for making a bargain?' replied the grocer, sentimentally, turning his back on his customer. When the wounded man was carried home and the doctors sent for, they spent two hours in theoretical discussion before they looked at the leg. Then they differed on the question whether the wound should be first washed or the leg set at once. The setter carried his point, and got ready his splinters; but before he fixed them, he bethought himself that a mollah must offer a prayer before he set to work.

An hour was consumed in finding the holy man, and the prayer lasted three quarters more; after which the leg was roughly set, the patient rending the air with his cries of agony. Then arose a fight among the doctors about his diet, one was for hot food, another for cold, some for abstinence, and so on. As they could not agree, they drew lots, and took the advice of an astronomer, who consulted a constellation; upon these two bases they decided that the wounded man should have as much as he could possibly eat, but no drink at all.

Herat has been visited once or twice by cholera, which has made great ravages. The principal physician acknowledged that his ignorant colleagues found it rather a difficult disease to treat but to him it was mere child's play. His most effectual prescription, he said, had been the ninety-nine attributes of the Deity, repeated in presence of the patient by three old men, two young men, and one maid, twice out loud and once to themselves.

Yar Mohammed, who was never satisfied that his French friend was as harmless as he pretended, was loth to let him go. General Ferrier's annoyance at his detention was increased by quiet hints he received from visitors, who assured him that he would be murdered at the first opportunity. When he walked out, he used to hear people in the crowd say, 'Poor fellow! how thin he has got!'

'Ah, how young he is to die!' By dint of courage and address, he succeeded in frustrating the designs of his host, if, indeed, the Shah ever had any; and after some weeks genteel confinement, pursued his travels through Afghanistan.

Yar Mohammed died in 1852, and his son, Syud Mohammed, succeeded to the throne. He was a mere simpleton, who spent his time in playing with an elephant which his father-in-law, Dost Mohammed, had given him. He once paid a visit to an English mess-table, and expressed a desire to learn some words of English. A waggish officer instructed him that the common salutation among the English was, 'You are a spoon!' upon which young Syud, on his return home, accosts his father,

'Agir-be-adebi na bashud' ('By your leave, father'), 'you are a spoon!'

He did not last long. A member of the old reigning family, which Yar Mohammed had set aside to usurp the throne—Mohammed Yussuf Shahzadah—overthrew him, and took his place as sovereign of Herat.

Our latest accounts from Herat state that the Shah had besieged and taken the place, and appointed this Yussuf Persian governor and military commander. Yussuf was well known to Sir John Login, who assured his government that he would be a firm friend to the English; if so, the story of Yussuf's being appointed Persian governor would be somewhat improbable.

The English have met this Perso-Russian move by a counter-move—similar to the demonstration made in 1838—in the Persian Gulf. To march a British army, with the enormous impedimenta

usual in India, to Herat, would be almost impossible. The East India Company have merely sent 6000 fighting men, with 12,000 camp-followers, in 32 steamers and transports, to the Persian port of Bushire, and occupied it, and one or two other desirable points.

Thus, though the fall of Herat lays open the flank of India—for you can drive a pleasure carriage all the way from Teheran to Candahar by Herat, and, once over the Persian border, an army can be maintained with the utmost facility—on the other hand, the English will seize all the Persian Gulf ports, and gain south what they lose north. The ultimate question will hinge on the remaining military strength of Russia.—[Harper's Weekly.]

[From the London Quarterly Review.]

Freaks of Lightning.

LIGHTNING FROM A DROP OF RAIN.—Two clouds are not necessary for the production of lightning, which is frequently discharged from a solitary clump of vapor, when a connection can be established with the earth. A French academicien, named Mercalle, describes a case where a mere cloudlet, about a foot in diameter, killed a poor woman by dropping a thunderbolt upon her head. It has been shown by Faraday that the electric fluid contained in a single flash might perhaps be supplied by the decomposition of one grain of water alone.

DIFFERENT SORTS OF LIGHTNING.—M. Arago has divided the lightnings into three sorts. The first includes those where the discharge appears like luminous lines, bent into angles, and zig-zags, and varying in complexion from white to blue, purple or red. This kind is known as forked-lightning, because it occasionally divides into two branches. Carpentiers relates a case where a flash severed into three forks, each of which struck on points several hundred feet apart. Still more numerous furecations have been reported, for it is said that during a tempest at Lauderneaur and St. Pol de Leon, twenty-four churches were struck, though only three distinct claps were heard. This was eight churches apiece for the three explosions!

The second class of lightning differs from the first in the range of surface over which the flash is diffused, and is designated as sheet lightning. Sometimes it simply gilds the edge of the cloud whence it leaps; but at others floods with a lurid radiance, or else suffuses its surface with blushes of a rosy or violet hue.

A FRENCH TAILOR CHASED BY A BALL OF LIGHTNING.—The third class of lightnings are remarkable for their eccentricities, and have been made the subject of considerable contention among meteorologists, many of whom have denied their right to be treated as legitimate lightnings, they differ so widely from the ordinary sort of flashes. They exhibit themselves as balls or globular lumps of fire—not momentary apparitions, but meteors which take their own time, and travel at remarkably slow rates.

It is this incelerity which gives them their doubtful character, as an electrical bolt is supposed to be one of the leading emblems of velocity. Among other anecdotes related of this kind of lightning is the following incident, which occurred to a tailor in the Rue St. Jacques, Val de Grace, about the year 1843. M. Babinet was commissioned by the Academy of Sciences to investigate the facts, and reported substantially as follows:

After a loud thunder clap, the tailor being finishing his meal, saw the chimney board fall down, as if overset by a slight gust of wind, and a globe of fire, about the size of a child's head, came out quietly and moved slowly about the room, at a small height above the floor. The tailor said it looked like a good-sized kitten, rolled up into a ball, and moving about showing its paws. It was bright and shining, but he felt no sensation of heat.

The globe came near his feet, like a young cat that wants to rub itself against its master's legs; but by moving them aside gently, he avoided the contact. It appears to have played for several seconds about his feet, bending his body over it and examining it attentively. After trying some excursions in different directions, it rose vertically to the height of his head. The globe elongated a little, then steered towards a hole in the chimney above the mantel piece, which hole received a stove-pipe in winter, but was now pasted over with paper. 'The thunder,' he said, 'could not see the hole;' but, nevertheless, the ball went straight to the aperture, removing the paper without hurting it, and made its way into the chimney.

Shortly afterwards, and when he supposed it had time to reach the top, it made a dreadful explosion, and destroyed the upper part of the chimney, and threw the fragments on the roofs of smaller buildings, which they broke through. The tailor's lodging was on the third story; the lower ones were not visited at all by the thunder-bolt.

WHY IT DESTROYS.—Lightning, when it meets with an obstruction in its course, frequently shatters non-conducting objects, dispersing and bursting substances asunder in every direction, as if they had been charged with gunpowder. The stone pinnacles of a church in Cornwall were struck by lightning and one fragment weighing three hundred pounds was hurled sixty yards to the southward, another four hundred yards to the north, and another to the southwest.

In 1838, the topgallant mast of her Majesty's ship Rodney was literally cut up into chips by a flash of lightning, the sea being strewn with fragments as if the carpenters had been sweeping their shavings overboard. Sometimes in striking a tree or mast, the electric fluid will slice it into shreds or filaments, so that it will appear like a huge broom or bundle of laths.

Lightning bolts will occasionally dash through resisting objects by tearing great openings, as in a Cornish church, where apertures are made in the solid walls of the belfry fourteen inches deep, and as truly regular as if cut out by art.

HOLES DRILLED BY THUNDER STORMS.—In other instances small holes are drilled, which are surprising for the perfect circularity of forms. Window panes have been frequently pierced in this fashion, without affecting the rest of the glass. In forming these apertures, a burr or projection is left upon the edges. Juvenile electricians are in the habit of making holes in a card by passing discharges through them, when a burr or projection will be observed on both sides of the orifice.

Sometimes a single discharge will procure two holes in a card, each puncture marked by a single burr, one on the upper and the other on the under side of the card. In some instances the results are such as to suggest that a flash may be split up into several fiery filaments before it strikes an object.

In 1777 a weathercock of tinned copper was hurled by a thunder-bolt from the top of a church in Cremona, and upon inspection, was found to be pierced with eighteen holes; in nine of them the burr was conspicuous on one side, and in nine it was equally prominent on the other, while the slope of the burr was identical in all.

GLASS TUBES MADE BY A LIGHTNING STROKE.—Among the curiosities of lightning are what is termed 'fulgurites,' or tubes, which the lightning constructs when it falls upon a siliceous spot by fusing the sand. They may be called casts of thunder-bolts. In some hillocks of land in Cumberland, England, these yellow tubes have been found from one-fifth to two inches in diameter, tapering, perhaps, to a mere point.

The entire extent of the tubes may be thirty feet, but they usually separate into numerous branches, and have the appearance of the skeleton of an inverted tree. They are lined with glass, as smooth and perfect as if it had been made in a glass house.

MELTING METALS BY IT.—Lightning will also vitrify the surface of rocks and fuse metals. In 1837, several links of the iron cable of an American packet ship were melted, and the glowing drops falling upon the deck, set fire to everything they touched. It would seem, too, that the lightning can liquify metals without harming or even singeing more fragile materials connected with them. Aristotle says copper has been melted off a shield without injuring the wood, and hence affirms that money has been fused in a purse without burning the latter.

It is a capricious meteor, and the pranks it plays are sometimes perfectly inexplicable. A man in Cornwall was once struck by a bolt, which burned the sleeve of his skirt and also of his coat to cincher, without frizzling or even damaging the outside of the coat in the least. Balls of electrical matter, capable of firing combustible objects, have been seen to issue from the sea, or to drop into sheets of water, without producing any hissing sound, or occasioning any symptoms of ebullition.

MAGNETIC EFFECTS OF IT.—As illustrative of the power of lightning to magnetic metals, it is related by Arago that the tools of a shoemaker in Swabia were thus treated, and he had constantly to be freeing his hammer, pinchers, and knife from the nails, needles and awls, which were constantly getting caught by them as they lay upon the bench.

Nearly two centuries ago a couple of English ships were sailing from London to Barbadoes. One of them was struck with lightning, and suddenly the captain of the suffering ship was observed to alter his course and his prow, as if making for England again. His consort inquired the reason, but found the whole crew were still proceeding to Barbadoes, as they firmly believed. A careful inspection showed that the poles of the compass had been completely reversed by the lightning.

THE LANGUAGE OF FINANCE.—Finance has a language of its own. Its thieves are not thieves but defaulters. Having more notes afloat than means to pay them, is being short of currency; the world calls it poverty and insolvency. Pawning is hypothecation, shinning and borrowing is financiering. Swindling is over-operating; taking men's and women's money to keep safely, and squandering it, or losing it in speculation, is suspending. Loaning out other people's money is accommodation.

Paying out doubtful issues in redeeming their own, is retiring circulation. Embezzlement is extending liabilities. Stealing state or government bonds is an over-issue; and managing a bank well is contriving to make somebody, not interested, furnish means to keep the bank upon.

Finance has a smooth business name for almost every act relating to money—its safe-keeping, disbursement and prompt payment; the reverse of which, in a private individual, is called by harsh Saxon names, such as found in bills of indictment and penal statutes. The votaries of finances never steal; they overdraw. They are never poor, though often 'very close.' They never refuse to pay honest debts; they suspend. The commercial history of this country for the past twenty-five years is a history of financiering—not only or chiefly by bankers, nor even by brokers, but by a class of adventurers, who have seized upon these capacities to shroud designs of plunder under technical names.

IMPROVEMENT IN BLASTING ROCKS.—A mode now adopted in blasting rocks consists in placing the powder or charge within a tube or a case, between two heads provided with a suitable packing, and attached to a rod, by which arrangement the charge is prevented from 'blowing out,' or obtaining vent in the direction of the line of the hole in which the tube and charge are placed, and the whole effect of the charge is exerted against the sides of the tubes or case. By this method it is represented that rocks may be blasted with much greater facility than by the ordinary mode, no tampering or packing of clay being necessary to confine the powder within the hole.