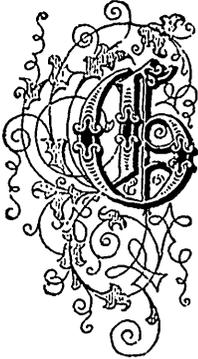


## GUNPOWDER AND ITS HISTORY.



UNPOWDER, like many other agents at man's disposal, is a powerful instrument for good or evil, and proves a boon or a curse according as it is employed for useful and beneficial objects, or is taken advantage of for the furtherance of baleful designs. Hence, conflicting ideas exist as to the light in which the invention should be considered. For some, it is associated with pictures of fear and destruction; a thing to be shunned and avoided; while others look upon it as a means of assisting man's progress in the several arts where it can be made use of. Both views have reasons for their existence, and it may be safely concluded that the invention of gunpowder has proved a disguised blessing for mankind.

The first great effect which it produced was a revolution in military tactics, cannon and guns taking the place of battering-rams and arrows. In former times, the contestants in battle were accustomed to meet in hand to hand encounter, and the results were truly disastrous. The warriors being brought into close contact, were inspired by feelings of anger and revenge, and fought with savage cruelty. The vigor and determination with which battles were carried on was so great, that at times few would escape death on the field. The duration, too, of the encounters was long, and consequently the destruction was great. But after the introduction of gunpowder a change came about, the old order giving place to the new. Armies were drawn up at greater distances apart, and fighting between individuals became a thing of the past. The passions of the soldiers were not excited to such an extent, the idea of self-preservation took an uppermost part, and the scenes of carnage were rendered less repulsive. All things considered, and notwithstanding the deadly effect of gunpowder, we can easily believe that war became less cruel, and was attended with less direful results. The end of the fighting, too, is more definite, and

the contestants are not offered such favorable opportunities for continuing their deeds of cruelty after the actual battle has ceased. In the event of the weakness or overpowering of one army, greater facilities are offered for retreat and escape, and soldiers are not obliged to wait for certain death. Can it not be justly said then, that the introduction of gunpowder into the methods of warfare has been a change for the better, and that soldiers are made more careful, and the fighting less bloody and cruel?

It cannot be said with certainty to whom we are indebted for the invention of gunpowder. Many attribute it to Friar Roger Bacon, in conjunction with Schwartz, a German monk, but although these may have been instrumental in making the explosive known to Europeans, it is altogether likely that gunpowder was known and made use of long before their time. It is probable that we must look for its origin to the far East, where so many useful inventions took their rise. Who knows but that the storied "Grecian Fire" was only a primitive form of gunpowder.

Of course, gunpowder in its primitive state of existence was far different from the perfected explosive which we now possess. Still, the latter is only the outcome of the former.

From some accounts it would appear that the Arabians knew of an explosive allied to gunpowder. Its existence may have been known in India at a more distant date, but the precise time at which it was invented is involved in obscurity, like the origin of many other useful agents. However, it was not for long years after its invention that it was employed for military purposes to any great extent. Its first applications were probably in rockets and shells. The damage done by these of course would not be very extensive, but gradually led up to the introduction of artillery, and finally of small arms. In these forms of rockets and shells, the Chinese were acquainted with it before the Christian era, and likely applied it to warlike purposes. But it was a long time before it was made use of for throwing projectiles, as is done by modern arms. Just when it was first used for this purpose