

Church "Stabat Mater dolorosa." They were opposed by the Pope and strictly forbidden to enter England or France.

Bigot.—Camden gives the following account of the origin of the word Bigot:—When Rollo, Duke of Normandy, received Gisla, the daughter of Charles the Simple, King of France, in marriage, together with the investiture of the Norman dukedom, he would not submit to kiss Charles's feet; and when his friends urged him to comply with that ceremony, he made answer in the English tongue, "Not so, by God." Upon which the king and his courtiers, deriding the duke, and repeating his answer corruptly, from ignorance of the language in which he spoke, called him "Bigot," whence the Normans were named Bigodi or Bigots. Some fanatical manifestations of religious zeal gave the word its present meaning. Other authors sought to refer the word bigot to different sources. Malone thinks that its original signification was that of "a rude and barbarous" person, and that it is a corruption from Visigoth: thus, Visigoth, Bisigoth, Bigot.

Blackguard.—In all great houses, but particularly in Royal residences, there were a number of mean and dirty dependents, whose office it was to attend the wood-yard, sculleries, &c. Of these, (for in the lowest depth there was a lower still) the most forlorn wretches seem to have been selected to carry coals to the kitchen, halls, &c. To this smutty regiment, who attended the progresses, and rode in the carts with the pots and kettles, which, with every other article of furniture, were then moved from palace to palace, the people in derision gave the name of blackguards, a term since become sufficiently familiar.

Blanket.—When the Flemings came over to England they introduced the making of all kinds of woollen cloth, and one of them, Thomas Blanket, having made one of these woollen shawls, called it a Blanket, after his name, which it still bears.

Bohemians.—Many persons are a good deal puzzled to know what is meant by the term Bohemian, which has become a word of very frequent use in our literature, and particularly among newspaper writers. A Bohemian, it may naturally be supposed, is nothing more than a native of Bohemia. But that is not the meaning of the word. In Paris the whole gipsy race are called Bohemians, and hence any sort of idler who lives by his wife is called a Bohemian. But it is to young artists and literary men, who are usually irregular in their habits, and not over strict in their morals, that the term is usually applied. From Paris the term was carried to London, and from London it has been brought to New York, and now Bohemians are talked about just as we speak of loafers or any other class.

Book.—Long, long before these wondrous days of ours, when a bundle of rags, introduced at one end of a machine, issues from the other in the shape of snow white paper, our worthy Teutonic forefathers were content to write their letters, calendars, and accounts upon wood. Being close-grained, and besides plentiful in the north, the *bee*, or *beech*, was the tree generally employed for this purpose, and hence came our word *book*.

Boss.—As the Boss of a shield, it comes from the Latin word *Pons*, anything *puffed up*. The root is the Greek *phusos*; the centre of the shield being generally raised above the rest.

Brandy.—Brandy began to be distilled in France about the year 1313, but it was prepared only as a medicine, and was considered as possessing such marvellous strengthening and sanitary powers, that the physicians named it "aqua vite," "the water of life," (*L'eau de vie*), a name it still retains, one of life's most powerful and prevalent destroyers. Raymond Lully, a disciple of Arnold de Villa Nova, considered his admirable Essence of Wine to be an emanation from Divinity, and that it was intended to reanimate and prolong the life of man. He even thought that this discovery indicated that the time had arrived for the consummation of all things, the end of the world. Before the means of determining the true quantity of alcohol in spirits were known, the dealers were in the habit of employing a very rude method of forming a notion of the strength. A given quantity of the spirits was poured upon a quantity of gunpowder in a dish and set on fire. If at the end of the combustion the gunpowder continued dry enough, it exploded, but if it had been wetted with water in the spirits, the flame of the alcohol went out without setting the powder on fire. This was called the proof. Spirits which kindled gunpowder were said to be above proof.

Brizska.—(Briska) a kind of light carriage, so called from a town of the same name in Russia.

Brown Study.—Brown Study (for *reverti*) is thought to be a corruption of brow-study.

Bull.—The term Bull, in the pontifical sense, is said by Arbutnot to be derived from "a sort of ornament worn by the young (Italian) nobility, called *bulle* (a semi-barbarous Greek word, signifying seals or signets) round, or of the figure of a heart, hung about their necks like diamond crosses. Those *bulle* came afterwards to be hung to the diplomas of the emperors and popes, whence they had the name of bulls." To distinguish them from all minor documents, and to mark their importance, seals of solid gold *bullion* were attached to them by the Pope, and from this arose the name of *bull*. Afterwards, bulls became rather common affairs, and seals of lesser value were appended to them, but the derivation immediately preceding receives considerable countenance from the fact that the bull creating Henry the Eighth "Defender of the Faith," had a seal of gold bullion attached to it.

Origin of the Saying, when people speak improperly, "That's a Bull."—This became a proverb from the repeated blunders of one Obadiah Bull, a lawyer of London, who lived in the reign of King Henry VII.

Bumper.—Bumper is a word of remarkable origin. Catholics, once on a time, were in the habit of dedicating their first glass of wine after dinner to the health of their spiritual head, the Pope. They drank to him by the name of *bon pere*, the good father. The words ultimately became the signal for filling the cups to the brim on all occasions.

Burg.—*bourg*, Latin *burgus*. It comes from the Greek, *turgos*, a tower, a castle, a fortified town. The following words seem to owe their name to it: Burgos, Bergen, Prague, and Perga.

Blue-Stockings.—The origin of the term Blue-Stocking is said to have been as follows, although we have heard other accounts. About the year 1750, it was much the fashion for several ladies to have evening assemblies, where the fair sex might participate in conversation with literary and ingenious men. One of the most eminent members of those societies, when they first commenced, was Mr. Stillingfleet, whose dress was remarkably grave, and in particular it was observed that

he wore blue stockings. Such was the excellence of his conversation that his absence was felt as so great a loss that it used to be said, "We can do nothing without the blue-sockings;" and thus, by degrees, the title was established.

BRITAIN.—The name of Britain is derived by some from a Phœnician word; by others from the *Brete*, a tribe of which there are traces in Gaul and Scythia. Among the first objects of the Phœnician intercourse was tin, whence the Greek name of *Cassiterides*, or the tin islands, an appellation afterwards confined, it has been supposed, to the Scilly isles. The name of *Anglia* or *England* is well known to have originated from the *Angles*, a nation of the Cimbric Chersonese or modern Jutland, who settled in the northern parts in the sixth century.

BEACON FIRES, &c.—From the origin of the burning bush, it is altogether probable, the worship of fire, for many ages, obtained over the whole habitable earth; and is still to be traced in the funeral piles of the Hindoos, the beacon fires of the Scotch and Irish, the periodical midnight fires of the Mexicans, and the council fires of the North American Indians, around which they dance.

By Hook and by Crook.—This phrase, like many others in common use, had its origin so long ago that it is not easy to say with certainty how it originated. Among the conjectures that have been made concerning it are the following:—

1. When Strongbow was debating with his followers on the best mode of capturing Ireland, he said that it might be taken by 'Hook or by Crook.' 'The Hook' was the name of a promontory forming the North-East boundary of Waterford Harbour, and 'Crook Haven' was the name of another harbour on the South Coast.

2. Hooke and Crooke were two judges, who always decided in favour of the king whenever his interests were concerned, so that it passed into the proverb that the king could get anything he wanted 'by Hooke or by Crooke.'

3. After the fire of London, A. D. 1666, during which more than 13,000 houses were burned, and many boundary lines entirely obliterated by the intensity of the conflagration, numerous disputes arose both as to the position and the extent of the estates of those whose houses had been destroyed, and all these disputes were finally referred to Hooke and Crook, two eminent surveyors, who, by the justice of their decisions, gave satisfaction to all the parties, so that each received his own by Hook and Crook.

4. It is quite certain, however, that the phrase is much older than 1666, and there is good reason to believe that it was not derived from the names of any persons or places. The origin of it is unquestionably to be found among the incidents of feudal tenure in England. Tenants of land were allowed to take 'fire-bote,' that is, as much fuel from the landlords' forests as was necessary for the maintenance of reasonable fires. But when they abused this privilege to the serious injury of valuable trees, and even to the diminution of wood estates, they were restricted to so much as they could take by 'hook and crook.' The hook or bill was a scythe-shaped tool, enabling the tenant to cut down only the smallest trees, and the crook at the end of the pole was used for pulling down and breaking up the dry branches of larger trees. We could hardly wish a more apt illustration of the means of gaining a desired object—'by hook' if it is near at hand, 'or by crook,' if somewhat beyond our reach, and there is almost no doubt in my mind that here we have the origin of the phrase.

It is considerably older than the times of Spenser even. In Bacon's 'Fortunes of the Faithful,' published in 1550, we find 'Whatsoever is pleasant or profitable must be theirs by hook or crook.' Tusser, who wrote on husbandry at a yet earlier date, gives the following poetical advice regarding the protection of sheep against dogs.

Of mastives and mongrels that many we see
A number of thousands too many there be:
Watch therefore in Lent, to thy sheepe goe and looke,
For dogs will have vittals by hooke and by crooke."

THE PROGRESS OF CHEMISTRY IN 1870.

From the Scientific American.

Although there have been no startling discoveries since the 1st of January, 1870, still chemistry has held even pace with all other sciences; and we have been called upon from time to time to record numerous improvements in the methods of manufacture of various articles, and in the new application of well-known compounds.

The uses of oxygen gas have been greatly extended since its cheap manufacture, and we hear of it as an important remedy in disease, as a powerful agent in the production of great heat, as a source of light, and it can now be purchased the same as any common agent employed by chemists.

The recent improvement in the preparation of hydrogen bids fair to become an important step in the manufacture of illuminating gas, as it can be converted into carburetted hydrogen very cheaply, when it will burn with a highly illuminating flame, thus affording a cheaper and purer light than has hitherto been known. The simultaneous discovery of the cheap and ready preparation of oxygen and hydrogen opens the way to many uses of those gases hitherto considered impossible on account of the expense attending their manufacture; and the study and development of this new industry must be assigned to the first half of this year. Hitherto, in speaking of hydrogen, we have been in the habit of assigning few uses to it. That it would lift balloons on account of its levity has long been known, but its application in medicine is a novelty of which, now that we are likely to have the gas in any quantity, we shall probably hear much more. When breathed in large quantities it proves fatal, but in proper proportions it acts as an hypnotic, and we may hear of it hereafter as a rival to the hydrate of chloral in cases of sleeplessness.

Further uses of hydrogen in conjunction with oxygen for the fusion of the most refractory metals is no novelty, and has long been anticipated as a probable and desirable consummation. The practical application of the condensation of gases for the production of cold is a result that has been attained this year more than in any other former period. The fact of the possible compression of gases into liquids was long ago ascertained by Faraday, and feeble attempts were made a few years since to apply it for the production of cold, but it was not until recently that these experiments proved successful. There now appears to be no doubt that the liquefaction of gases is the true method upon which to found the artificial production of ice on a commercial scale; and we shall be glad to record the success of any mechanical contrivance that shall accomplish all that science pronounces as entirely practicable

in this direction. The chemistry of the question has been fully worked out, and what remains to be done is a similar solution of the mechanical part of the problem.

During the present year we have recorded unusual progress in the art of photography, especially in the rapidity of printing, and the permanency of the pictures. The Albertype offers a method by which a thousand prints can be taken in a day, with durable ink, and in colours according to the natural appearance of the objects, where these colours are such that they can be introduced with the ink. The Albertype and the Woodburytype are among the most important improvements of the present day, and offer encouragement that a rapid method for the production of photographic prints has now been attained. Photographing natural colours has made very little progress during the last six months, and it appears doubtful if we shall ever be able to accomplish this desirable result.

In the manufacture of glass we have to mention the use of salts of baryta, of fluor spar, of salts of thallium, for optical purposes, and in general a very satisfactory progress.

Platinized mirrors have been introduced, and appear to give satisfaction for various purposes; but the manufacture has hardly reached such proportions as to enable us to pronounce with absolute certainty upon the success of the method. Silver mirrors, which at one time were urgently pushed as a cheap and most desirable invention, have by no means displaced the quicksilver mirror so long in vogue; and there would appear to be some practical difficulties in the way of the universal substitution of silver for mercury. From a sanitary point of view it is a misfortune that silver cannot take the place of mercury, as the latter is exceedingly poisonous to the workmen; and it was chiefly from this humanitarian consideration that Liebig took up the investigation and devised cheap and ready methods for silvering glass.

The uses of manganese have largely increased during the present year, and new and important industries appear likely to be founded upon recent discoveries of the cheap preparation of the permanganates and the metal. It is now well known that Tessié du Motay's method for the manufacture of oxygen gas is founded upon the use of the oxide of manganese and soda.

The ready way of making the manganate of soda has suggested the use of that salt for many purposes, and by degrees the permanganate has been introduced and applied as a disinfectant and for bleaching; it is for the latter purpose that the permanganates of lime and potash appear destined to become conspicuous. Disinfecting and bleaching are essentially founded on the same chemical process: for the former only small quantities of material are required, while for the latter the demand was much beyond the possibility of the supply. It has now been proved that the permanganates are among the best bleaching agents we have, and the past few months have shown the possibility of supplying them cheaply and in any quantity. No chemical progress of recent date is of more importance than this application of permanganic acid as a disinfecting and bleaching agent.

We have also to note the use of metallic manganese in combination with copper. Cupro-manganese is a white alloy closely resembling German silver, and possessing many of the valuable properties of the older alloy. It can be substituted for German silver in plated ware, and is now manufactured and successfully applied in Connecticut. There was formerly an insurmountable obstacle in the way of the use of manganese, and that was the production of the necessary heat to fuse it. This difficulty has now been overcome by the use of Siemens' furnace, and the alloy of copper and manganese is readily accomplished. We shall probably hear of its introduction as a substitute for the much more expensive alloy of nickel, and can now anticipate the manufacture of manganese steel more largely than before.

The progress in the economical use of products that were formerly wasted, has been satisfactory during the past six months. Earth closets have become better known, and by degrees we shall not only avoid the waste attending upon the old system, but also the frequent diseases and discomfort that custom has fastened upon us. The waste of coal-tar products is fast disappearing, and as we have recently had occasion to remark, so great has been the progress of discovery in the new application of the liquid and solid products of the distillation of coal that we expect to see retorts erected for the purpose of producing them, rather than for the manufacture of gas. Gas will become an incidental product, while the object sought will be the tar from which to make aniline colours, and anthracene from which to manufacture alizarine and artificial madder dyes.

The manufacture and use of the hydrate of chloral, although not started this year, may be properly said to belong to it, as it has received its chief development within the last six months. This medicine may be pronounced the most valuable contribution of chemistry to *medicina materica* that has been made for a long time.

The progress made in the uses of glycerin is worthy of note, and in nothing was it more unexpected than in the preparation of elastic sponge. By this recent improvement we have refuse sponge rendered available for mattresses, cushions, and other purposes. The use of glycerin in wine and beer, and for the preservation of animal substances from decay, and in medicine, is also worthy of note.

We cannot enumerate in detail each particular discovery, but have said enough to show that the recent progress of chemistry has been entirely satisfactory, and quite up to the precedents of the past few years.

TO CLEAN BLACK CLOTH.—Dissolve one ounce of bicarbonate of ammonia in one quart of warm water. With this liquid rub the cloth, using a piece of flannel or black cloth for the purpose. After the application of this solution, clean the cloth well with clear water; dry and iron it, brushing the cloth from time to time in the direction of the fibre.

TO CORRESPONDENTS.

J. K., OTTAWA.—Your verses are respectfully declined.

CHESS.

SOLUTION TO PROBLEM No. 13

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| White. | | Black. |
| 1. Q. to Q. B. 6th. | | Kt. P. take P. |
| 2. Q. to Q. R. 8th. | | Any move. |
| 3. Mates. | | |