

on the other side. Stamps with the letters set with points, are used by the blind to press through the paper; and in this way they are able to write a long letter upon a sheet of paper, to write the address by the same means; and when they have finished, they can read with their finger all that they have written. At first, when the blind addressed their own letters, it was feared that the postmen would not be able to read the address; but in this they were agreeably disappointed, for the letters went from one end of the kingdom to the other, with as much accuracy as if they had been addressed in the common way. There has been no instance yet known of their having miscarried. It is exceedingly gratifying to the blind to be thus enabled to correspond with their friends, and to receive letters which they can read without assistance. They are also in the habit of writing poetry and private memoranda, in which they take great pleasure. The frame upon which the writing is performed, is very simple, and costs about 5s. The wooden stamps cost about 6s. 6d., and the box for holding them arranged for writing, costs 3s. 6d.; so that the expense of the whole apparatus is about 15s. This is the most expensive part of the apparatus for the blind; but when once furnished, it may last for life, and is a source of much pleasure and convenience, as it enables the blind to print their own books, and even to print music, as we shall afterwards show. The other mode of writing by the blind is by means of an instrument called a Typhlograph, the invention of Mr. Gall's son. The writing is done by a pointed pencil on paper, in a current large or small hand. The instrument used in the process consists of a board, a guide, and a slide-rest—the object of the apparatus being to guide the hand, and cause regularity. It will be comprehended that the writing so executed can be read only by those who see. A blind person writing for the press would follow this plan.

Professor Saunderson, teacher of mathematics in the University of Cambridge, who was blind (see his biography in the 61st number of the Journal), invented a table for himself, by which he could cast up accounts. It consisted of a surface cut into squares, with grooves between, which crossed each other. Each square had nine holes, and according to the hole in which a pin was put, so was the square distinguished. The squares being arranged in lines upwards, and also sideways, and each representing one figure, he was able to perform all the rules of arithmetic by its means. An improvement has been made on this plan; but it has not been found to answer the purpose so well as the simple process of computation by pins, also invented by Mr. Gall, junior. All the apparatus now required by the blind to cast accounts, consists of a quantity of ordinary pins and a cushion; if a cushion be not at hand, any soft substance, such as the seat of a chair, a bed, a carpet, or the sleeve of a coat, will be sufficient. The ten figures and their combinations are represented by pins stuck into the cushion—the way in which the head of the pin points or projects being indicative of a number. For example, 1 is represented by the pin stuck with its head pointing from the person, 2 by its pointing to the right, 3 by its pointing towards the person, and 4 by its pointing to the left; 5, 6, 7, and 8, are respectively represented by two pins close together, pointing variously in the same manner; 9 is two pins with their heads projecting upwards, and 0 is one pin projecting upwards. A very little practice is sufficient to imprint the value of these tangible signs on the memory. In business transactions, the pin notation will be found to be most valuable to the blind. It occupies the place of a scroll journal. Every customer has a small cushion appropriated to his accounts. These cushions have a loop of tape or riband sewed to the corner by which it is to hang. This loop fixes the position of the cushion, and is always supposed to be at the top, on the right hand. The person's name being written with the stamps on paper, is pinned to the centre of the top; and when an article is to be charged against him, the name of the article may either be written in the same way, or indicated by peculiar combinations of pins. The blind ought always to be taught book-keeping. This

is done first by making them cast the accounts on the cushion, and then copy them into the cash-book or ledger with the stamps. The pincushion is the universal album of the blind. Not only are the arithmetical figures represented by its means, but any kind of diagram may be represented to the touch. In forming diagrams, the pins are thrust into the cushion to the very head, in lines corresponding with the shape intended to be felt. The heads of the pins, therefore, are the only parts which are felt—each head represents a point, and a succession of them represents a line. It is necessary to have a pair of wooden compasses for the forming of geometrical diagrams. Instead of the limbs terminating in points, as in other compasses, there is a small nick at each extremity, into which the pin is placed before thrusting it down. The sides of the limbs are straight—one of them having slight grooves cut at regular distances, for making straight lines by rows of pins; the other having the grooves cut at distances of half an inch—every alternate groove being distinguished by a larger indentation at the top.

The pincushion is found to be an invaluable apparatus in the school and study of the blind. Young persons may be taught to read by it, for every body knows how easy it is to form letters by heads of pins; a knowledge of writing may be communicated in the same manner; memorandums may be made, diagrams drawn, and the outlines and relative distances of geographical objects communicated, all by means of a simple cushion and a pennyworth of pins.

It is of considerable importance to have a plan by which the blind may be taught music scientifically. Hitherto they have acquired a knowledge of tunes entirely by the ear, and retained a recollection of the notes by the memory. We are happy to say that this deficiency is now obviated. The blind may now sing music from the book, almost as advantageously as if they had the use of their eyes. The notation for them is not by dots and five parallel lines, that being too complex an arrangement. A new notation has been invented, so simple that any one could understand how to sing from it with only one lesson. The notes are represented by the numbers 1 2 3 4 5 6 7. The "rest" is represented by a 0. To give an idea of time, points are used after the figures; one point doubles the times of the simple figure; two points multiplies it by four; and three points multiplies it by eight. If more than this be required, a line after the figure indicates four of the points, and one, or two points, may follow it, so as to multiply the time of the simple figure by sixth-four. For a full account of this very interesting branch of education for the blind, we must refer to the authority under mentioned, from which we have gleaned these particulars: it may be enough here to present the following example of the notation of part of a well-known tune in church music:—

1.	1	7	6	5	1.	2.	3.
All	peo	-	ple	that	on	earth	do
3.	3	3	2	1	4.	3.	2.
Sing	to	the	Lord	with	cheer	-	ful
					voice.		

Music of this description may be printed with the types used in the books for the blind, may be written with the stamps or typhlograph, or may be represented by pins on the pincushion.

We have now presented a faithful though very imperfect account of what has lately been done to facilitate the school education and general instruction of the blind. We should, however, be justly accused of negligence, if we omitted to mention in conclusion, that the great moving spring of action in the various improvements carried into effect, has been Mr. Gall of Edinburgh, the gentleman already alluded to. For although his success as the founder of a permanent literature for this helpless portion of his fellow-creature, has lately raised up several labourers in the same field, it is worthy of remark, that his operations were complete, if not perfect, several years before the public mind could be sufficiently roused to perceive its importance, far less to excite competition. Had it not been for his extraordinary exertions in behalf of

the education of the blind, and literature for their use, little progress would as yet have been made in this great work of charity and mercy. And we sincerely hope that his exertions will ultimately be rewarded as they deserve.—*A late number of Chambers Journal.*

KILLING AN ALLIGATOR.—One day, while we lay at anchor, I witnessed one of the most ingenious ways of killing an alligator that could be imagined. One of these huge creatures was discovered basking on a bank in the river, a short distance ahead of our vessels. He was observed by two natives in a canoe, who immediately paddled to the opposite side of the bank, and having landed, crept cautiously towards him. As soon as they were near the animal, one of the natives stood up from his crouching position, holding a spear about six feet long, which with one blow he struck through the animal's tail into the sand. A most strenuous contest immediately ensued; the man with the spear holding it in the sand as firmly as his strength allowed him, and clinging to it as it became necessary to shift his position with the agility of a monkey; while his companion occasionally ran in as opportunity offered, and with much dexterity gave the animal a thrust with his long knife retreating at the same moment from within reach of its capacious jaws as it whirled round upon the extraordinary pivot which his companion had so successfully placed in its tail. The battle lasted about half an hour, terminating in the slaughter of the alligator, and the triumph of his conquerors, who were not long in cutting him to pieces, and loading their canoes with his flesh, which they immediately carried to the shore and retailed to their countrymen. It is evident that the success of this plan depended on the nerve and dexterity of the man who pinned the animal's tail to the ground; and his contortions and struggles to keep his position were highly ridiculous and entertaining.—*Laird and Oldfield's Narrative of an Expedition into the interior of Africa.*

MARRIAGE A LOTTERY.—Our readers are acquainted with the singular freak of the young man who made a lottery of himself. The following has been the denouement of this ingenious speculation, for the truth of which a provincial journal refers us to the civil registry of Lyons. The drawing took place in the fairest manner possible, in presence of a notary and of several witnesses. Madlle. Euphrasie B., a young lady of fortune at Lyons won the young man. A singular incident occurred after the drawing had been decided. The young lady was still unaware of her own good fortune, when one morning a lady waited upon her in a state of most painful excitement. "Save my life, Mademoiselle." "How?" "Cede your ticket to me." "What ticket?" "The lottery ticket—the ticket for the young man." "Oh, I had quite forgotten it." "Then, know, Mademoiselle, that I love him—that I adore him. I had taken 30 tickets: it was as much as my means would allow of my doing. My tickets are all blanks. Yours is the only prize. Cede it to me or you will cause my death." "Madam," replied Mademoiselle Euphrasie, "there is a written clause on the tickets that if the young man should not please me, or if I should not please the young man, we are to divide the 200,000 francs, and not to marry one another. This chance remains for you: as to my ticket, I shall keep it." An hour afterwards the prize young man presented himself to Euphrasie; they were mutually satisfied, and lost no time in binding the conjugal knot. The lady who had been so anxious to obtain the transfer of Euphrasie's ticket was a widow of Careassone, and is said to have destroyed herself. The young couple united by lottery are spending their honeymoon at Narbonne.—*Constitutionnel.*

A CAVILLER SILENCED.—A flippant chatterer, after having spoken slightly of the miracles, to Dr. Parr, exclaimed, "Well, but doctor, what think you of the mark of the cross upon the ass's back, which they say indicates the precise spot where the animal was smitten by Balaam?" "Why, sir," replied the doctor, "I say that if you had a little more of the cross, and a good deal less of the ass, it would be much better for you."