The Eighteenth Century Scene*

By Dr. Allan Ferguson

WHAT is the secret of the fascination which the character of Johnson has exerted on his friends, his contemporaries, and all lovers of England for nigh on two centuries? There are no half measures about it-if you know your Johnson, you like or dislike him heartily—and the great-hearted sturdy figure has to-day, even as in his lifetime, far more friends than enemies. It is curious, too, and a reflection in some measure of his powerful personality, that his is one of the few great names in our English life and literature of whom it can be said that their reputation never suffers from the swing of the pendulum. We hear little of Carlyle and Ruskin to-day; Tennyson, after suffering a temporary eclipse, is coming into his own again; following a period of obscurity, the personality and achievements of Gladstone have provided material for half a dozen recent mono-But since the day of Johnson's death the stream of comment and of criticism has never run dry. Apart from the work of the compilers of Ana, successive editions of Boswell by Malone, Croker, Napier, Fitzgerald, Birrell, and greatest of all, Birkbeck Hill, not to mention the misguided efforts of one or two editors to present us with a 'bovrilised' Boswell from which the 'longueurs' have disappeared, are milestones through the nineteenth century.

Year after year sees our knowledge of Johnson now growing, now darkened by the efforts of some thesis-mongering critic who attempts to sound the depths of his complex personality with a wholly inadequate plumb and line. But whatever may be our estimate of the attempts, the volume of contemporary criticism shows, eloquently enough, the interest which he provokes in any age. What is at the root of it all? Let us at once anticipate the drawing-room critic by admitting the worst which can be said of him. He could be, at times, violent and overbearing; he was occasionally uncouth and absent-minded; his literary fame and greatness of mind brought small consolation to the housewife who saw her best carpet disfigured by the moralist's habit of turning his candle upside-down to make it burn more brightly; he was indolent by nature; he would argue for victory; and his temperament had a hypochondriacal and melancholy side.

All this is true enough, but it must be remembered that our critical reading is not only coloured by what we term our judgment, and our friends our prejudices, but also that the very account which we read is as much a reflection of the mentality of the writer as it is an appreciation of the figure mainly concerned. Johnson has suffered somewhat at the hands of conventional commentators, more

*"Johnson's England: an Account of the Life and Manners of his Age". Edited by Prof. A. S. Turberville. Vol. 1. Pp. xxfii+405+72 plates. Vol. 2. Pp. ix+404+46 plates. (Oxford: Clarendon Press; London: Oxford University Press, 1933.) 42s. net.

skilled to pick out faults than to see the nobility behind them, or to realise that Johnson without his scars ceases to be Johnson. He was indolent; and the mass of sound work behind his name should put to shame the most industrious of his critics; he was overbearing and inclined to use the butt-end of the pistol in argument—as when, finding himself worsted in a discussion on the virtues of medicated baths, he cried: "Well, sir, go to Dominicetti, and get thyself fumigated; but be sure that the steam be directed to thy head, for that is the peccant part."

Johnson was, however, so frank in apology, so ready to take the first opportunity of reconciliation, that incidents, which loom large in the minds of critics of the feebler sort, were seen in their correct perspective by those friends who knew him far better than we can hope to do; who were competent to assess at its true value the wisdom and goodness of him who, giving small weight to conventional expressions of sympathy ("Sir . . . you will find these very feeling people are not very ready to do you good. They pay you by feeling"), took on his back a poor woman of the town whom he found lying ill in the street, carried her to his house and "had her taken care of . . . till she was restored to health and . . . put . . . into a virtuous way of living"; who not merely passively endured, but cheerfully sustained for years a nondescript household of dependents with whose queerness and bickerings Shaftesbury himself would have had small patience. He would argue for victory, and would, in the mood, stubbornly maintain a completely wrong-headed attitude. Yet few men have shown in discussion such cogency of argument, such genuine humour, such force and precision of language, such aptness of illustration. Could the matter be more neatly put than in his comment on the assertion that a congé d'élire had only the force of a recom-"Sir, it is such a recommendation mendation? as if I should throw you out of a two-pair of stairs window, and recommend you to fall soft". the vague and woolly phrase and mind he was an uncompromising enemy ("Poll is a stupid slut; she was wiggle-waggle, and I never could persuade her to be categorical"). He had his melancholy fits and feared to be left in solitude. none could be a gayer companion, witty and charming, welcome and at his ease in any company.

More than anything, Johnson was an amateur of life in all its phases. His nature could extract a high and candid philosophy of life from keen observation of men and books, and, with one exception, he was utterly fearless, physically and morally. When, an elderly man, he was bathing with Langton and was cautioned against a dangerous

pool, he thereupon swam directly into it; anda higher virtue—he was never afraid to recognise aspects of human nature which the demands of conventionality tend to ignore. A remark made by Reynolds, in Johnson's hearing, to ladies lamenting the loss of a benefactor—"You have, however, the comfort of being relieved from a burden of gratitude"-first attracted him to Reynolds; and it is an odd commentary on changing social values that this remark, recognised by Johnson in the eighteenth century as exhibiting a fair view of human nature, drew from Morley the comment that "no moralist with a reputation to lose would like to back Reynolds's remark in the nineteenth century" and is quoted by a twentieth century critic of Johnson as "the sort of thing which everyone knows to be true, but which very few venture to say".

No man saw more clearly the vast gulf which lies between life as it is, and life as we endeavour to cheat ourselves into believing it to be. It is this clarity of vision, despite his prejudiced views on many questions of the day, which makes Johnson's writings so rich a storehouse of those compressions of thought and observation which we term aphorisms. His advice to Boswell-advice applicable to weightier matters than are exhibited in the illustrations—sums up the matter: "My dear friend, clear your mind of cant. You may talk as other people do. You may say to a man, 'Sir, I am your most obedient-humble servant'; you are not his most humble servant. You may say, 'These are bad times; it is a melancholy thing to be reserved to such times'; you don't mind the times. You tell a man, 'I am sorry you had such bad weather the last day of your journey, and were so much wet'; you don't care sixpence whether he is wet or dry. You may talk in this manner, it is a mode of talking in Society; but don't think foolishly."

With this practical wisdom, goes a boyishness of spirit, and a very endearing capacity for exhibiting certain human weaknesses. Witness Mrs. Thrale when "I had teized him for many weeks to write a recommendatory letter of a little boy to his schoolmaster; and after he had faithfully promised to do this prodigious feat before we met again—'Do not forget dear Dick, Sir,' said I, as he went out of the coach; he turned back, stood still two minutes on the carriage step-'When I have written my letter to Dick, I may hang myself, mayn't I?'—and turned away in a very ill-humour indeed." Most reluctant performers of allotted tasks will recognise a kindred spirit here, and in that illuminating entry in the diary of his Welsh tour which records that "We then went to see a Cascade. I trudged unwillingly and was not sorry to find it dry".

What were the characteristics of the scene in which Johnson played so dominating a part? To obtain a faithful picture of his personality we have to realise, not only the broad outlines of the events of his times, but something of that detail—ce superflu, si nécessaire—so dearly loved by Austin

Dobson. We know that the stage played a large part in the life of the town—we may even know something of the line of development of the eighteenth century drama; but it adds much to the vividness of the portrait if we know that the audience were seated on backless benches, which could not be booked in advance; that the system of dropping the curtain between the acts was not introduced until the mid-century; and that Garrick revolutionised the whole system of stagelighting by substituting unobtrusive wing-lights for the chandeliers which heretofore had hung in front of the stage, obscuring the view, and only half-illuminating the scenery.

In the long tale of man's conquest of Nature there is no more fascinating story than that of the slow degrees by which he improved his means of communication with his fellows. We know that roads were vile at the beginning of the century, and tolerable at its close—so much improved indeed that the railway at its inception had only small advantages to offer. But such knowledge has little value; we need to be able to visualise the coaches, waggons and post-chaises by which our ancestors travelled and, in the spirit of Lord Kelvin's dictum that we begin to know something of a quantity when we can say how much of it there is, we find our notions of the roads of the period clarified when we realise that about the mid-century a journey of fifty miles was a good day's work, and that towards the end of the century about a hundred miles could be covered in a day. Indeed, Arthur Young remarks about 1770, "The power of expeditious travelling depopulates the kingdom. Young men and women in the country villages . . . enter into service . . . to raise money enough to go into London . . . no easy matter when a stage coach was four or five days creeping a hundred miles. But now! A country fellow, a hundred miles from London, jumps on to a coach box in the morning, and for eight or ten shillings gets to London by night; which makes a material difference." change—we seem to remember similar remarks made but recently concerning the effect of the motor bus on village life.

The study of the daily habits of our ancestors provides material of never failing interest. What and when they ate and drank, the type of house in which they lived, the clothes they wore, the books they read, the manner in which they farmed their land. It is so very easy to visualise the century as one of a highly artificial civilisation, an age of panniers and hoops, of affected compliments and heroic couplets, of grand tours and olympic statesmen; or, at the other extreme, as one of gaol fever, of stinking streets and ditches, of Hogarth's Gin Lane, of highwaymen, street thieves and melancholy processions to Tyburn. perfectly true that these extreme elements form part of the picture. But a part only; and it is the province of the volumes under discussion to correct such facile and distorted views. Nowhere is this correction more effectively made than in

the section which deals with town life in the provinces. Many readers of to-day are apt to project their present knowledge of, say, Leeds or Birmingham, back into eighteenth century conditions, and it is with something of surprise that we learn that, outside London, the only considerable English city at the middle period of the century was Bristol with a population of a hundred thousand. Norwich came next, with a population of about fifty thousand; then Manchester and Liverpool in the region of thirty thousand. The populations of Hull and Sheffield were between twenty and thirty thousand, those of Nottingham, Leeds, Shrewsbury, Chester and Worcester between ten and seventeen thousand. Such towns as Bolton, Bradford and Newbury were not greater in population than five thousand souls, and most of the flourishing market towns of the period were no more than large villages of two to four thousand inhabitants. Their problems of lighting, paving and sanitation were not markedly different from those which face corresponding English villages to-day. Perhaps their solution was not so very much lower in point of efficiency; at the moment of writing, we hear news of deaths caused by the failure of water supply in villages under the stress of the drought of 1933.

The furniture of the houses of the period is known in minute detail. The topographers of the age catalogued the more striking of the contents of the mansions of the nobility and gentry, and legal inventories and auctioneers' catalogues are not unknown. One striking feature of the interior furnishings of the period is the small part which the bath and the bathroom play therein. Johnson himself remarked to the Lichfield draper showing him his cold bath, "I hate immersion", admonishing him to "let well alone, and be content"; and we are told of the eleventh Duke of Norfolk that he was "never thoroughly washed except when he was so drunk that his servants were able to place him in his bath without his being sensible of it".

The section which deals with the house interior is remarkably full in its account of the furniture of upper class houses. Beautiful examples of period furniture are described and illustrated, but we would willingly have sacrificed some of this in order to obtain more knowledge of farms, cottages, alehouses and the village inn with

"The whitewashed wall, the nicely sanded floor, The varnished clock that clicked behind the door, The chest contrived a double debt to pay, A bed by night, a chest of drawers by day; The pictures placed for ornament and use,

The twelve good rules, the royal game of goose, The hearth, except when winter chilled the day, With aspen boughs, and flowers and fennel gay; While broken teacups, wisely kept for show, Ranged o'er the chimney, glistened in a row."

The paucity of this information is not fully compensated by an extract from Southey descriptive of an early nineteenth century farmhouse, or a brief description of the plates of "Marriage à la mode". One inventory which has escaped the author's notice—a catalogue of very deep interest to the readers of NATURE—is that which describes the contents of the house in the parish of St. Martin's-in-the-Fields, in which Sir Isaac Newton died. Newton died intestate and, as was discovered by Lieut.-Col. de Villamil, a very detailed inventory of the contents of his house was taken at the instance of the Prerogative Court of Canterbury. The records of this court are preserved at Somerset House, and a close search revealed the inventory in the form of a vellum roll some five inches broad and seventeen feet long. The detail is remarkable, so much so that it would not be a difficult matter to refurnish every room in a reproduction of Newton's house in the exact style in which he lived. The inventory would seem to fill a gap in the literature; it gives a very complete picture of a middle class house in the year 1727. Here again, despite an astonishing particularity of description which includes certain articles of bedroom furniture in silver, and descends to a tabulation of "a leaf of a table two old coats two old hatts . . . a pair of tongs a perriwig block two leaden flower pots" in the stable, the only mention of a bath is found in the inventory of the "fore room two pair of stairs", where we read of "three globes a copper plate a silver watch a Bath mettle case of instruments a shagreen case Do. a small penknife an embroidered purse two plaistered heads and two small pictures". We fear that the word *Bath* here refers to the alloy (three or four ounces of zinc to a pound of copper) of which the case is composed.

It would be an impossible task to summarise adequately the contents of the twenty-seven sections of these volumes—sections which cover almost all of the activities of the age, and furnish us with a picture, most skilfully conceived and carried out, in which the immense detail necessary for any accurate scholarship is introduced into the main structure in so thoroughly interesting a fashion that its presence is never felt to be overwhelming, nor permitted to obscure the main outlines. We have seen that daily life and habits in the metropolis and in the provinces are adequately treated. The Church, the Army, the Navy, trade and rural life, travel and discovery, sports and costume, all find representation. We are introduced to a study of the law of the period, a mass of queer, interesting and archaic technicalities wherein, for example, under a writ of debt, a defendant could wage his law, that is, could "swear that he did not owe the money . . . and produce eleven compurgators to swear that they believed him"; and the defendant could escape scot free if he managed to find eleven such hard swearers! True, the lawyers had discovered subtle ways to make the process difficult, but so late as 1824 such a case occurred, and the possibility was not finally disposed of until the Act of 1833.

The arts of painting, engraving, sculpture, architecture, the drama and music have each a section devoted to them, and three very important

divisions deal respectively with medicine, education and science. The last-named section gives, as is natural, much of its space to the story of phlogiston and to the discovery and manipulation of gases. Sections on authors and booksellers and on the newspaper close a study which provides material of most absorbing interest, and which may fairly be called indispensable to a student of the period. It will none the less prove attractive to the general reader and will receive an unstinted welcome from all sound Johnsonians. We hope that Prof. Turberville will continue the good work—a study of Tennyson's England covers almost the same period in the nineteenth century that is covered in the eighteenth by the present study, and it has its possibilities.

Manufacture of Sheet and Plate Glass

IN a Friday evening discourse delivered at the Royal Institution on December 8, Major R. M. Weeks, of Messrs. Pilkington Brothers, Ltd., described, and illustrated by lantern slides and films, the methods in use for the manufacture of

sheet and plate glass.

The principal raw materials used in the manufacture of sheet and plate glass are sand, soda ash and limestone. These materials, perhaps with the addition of arsenic, anthracite, alumina or magnesium carbonate, all in a finely divided condition, are intimately mixed prior to melting. There are two well-known processes for melting this mixture. (1) The older method, in which the materials are melted in clay pots, and a definite time-temperature schedule is allotted to melting, founding, refining and cooling off to the working temperature. As many as twenty melting pots are sometimes (2) The more accommodated in one furnace. modern method, in which the mixed raw materials are fed on at one end of a tank furnace where they are melted. The molten glass then flows through controlled temperature zones which ensure the founding and refining, and finally arrive at the working end at the required temperature. Such tanks contain anything up to 900 tons, and the temperatures may vary from 1450° to 1200° C. in different zones.

Sheet glass was first made by a blowing and spinning process. Such glass, known as 'crown glass', was characterised by the 'bull's eye' in the middle of each disc. This method was followed in 1832 by the 'blown' process, in which the gathering of glass was blown into the form of an elongated cylinder. After separating the cylinder from the blowing iron, the ends were cut off, and the cylinder split down its length and flattened into a sheet. In 1909, a mechanical method of drawing cylinders of a larger size was introduced from the United States. By this method, cylinders 40 ft. long and about 3 ft. in diameter are drawn (Fig. 1). Such cylinders are cut up into sections before flattening and annealing.

Since 1900, three processes for the drawing of flat sheet glass have been developed commercially: (a) Fourcault process, (b) Colburn or Libbey-Owens, and (c) Pittsburg process. In the Fourcault process, glass is drawn as a sheet vertically from a slot in a depressed fireclay float. In its early days, devitrification was a source of trouble. In the Libbey-Owens process the sheet is drawn from an open bath of molten glass, and thus

excessive devitrification troubles are avoided, but the sheet when formed is reheated and bent to the horizontal by being passed over a bending roller. The Pittsburg process is a modification of the Fourcault process, the chief difference lying in the use of a bar of fireclay submerged beneath the surface of the glass to define the position of generation of the sheet.

The making of plate glass involves two distinct

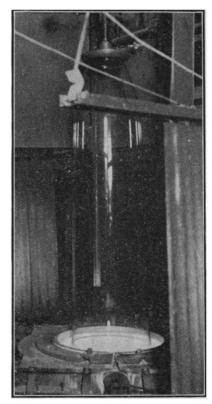


Fig. 1. Drawing sheet glass cylinders mechanically.

processes: (1) manufacture of rough glass blanks; and (2) grinding and polishing of these blanks. Since 1774, plate glass blanks have been cast from glass melted in pots. Typical melting pots contain about a ton of glass and yield plates of about 300 square feet, at a thickness of 7/16 of an inch. The casting consists in taking the pot from the furnace and pouring the molten glass on to a smooth iron table in front of a roller. The rolled blank is then annealed, a process which in earlier times occupied three