

BALLET is a word, the signification of which depends upon the century in which we find it employed. Originally derived from the Greek βαλλίζω, to dance, it has passed through the mediæval Latin ballare (with ballator as synonymous with saltator) to the Italian ballare and ballata, to the French ballet, to the old English word ballette, and to ballad. In old French, according to Rousseau, ballet signifies "to dance, to sing, to rejoice;" and thus it incorporates three distinct modern words, "ballet, ball, and ballad." Through the gradual changes in the amusements of different ages, the meaning of the first two words has at length become limited to dancing, and the third is now confined to singing. But, although ballads are no longer the vocal accompaniments to dances round the maypole, our old ballads are still sung to dance tunes. The present acceptation of the word ballet is—a theatrical representation in which a story is told only by gesture, accompanied by music which should be characterised by stronger emphasis than would be employed with the voice. The dancing should be connected with the story, but is more commonly incidental. The French word was found to be so comprehensive as to require further definition, and thus the above-described would be distinguished as the ballet d'action or pantomime ballet, while a single scene, such as that of a village festival with its dances, would now be termed a divertissement.

The ballet d'action, to which the changed meaning of the word is to be ascribed, and therewith the introduction of modern ballet, has been generally attributed to the 16th century. Novelty of entertainment was then sought for in the splendid courts of Italy, in order to celebrate events which were thought great in their time, such as the marriages of princes, or the triumphs of their arms. Invention was on the rack for novelty, and the skill of the machinist was taxed to the utmost. It has been supposed that the art of the old Roman pantomimi was then revived, to add to the attractions of court-dances. Under the Roman empire the pantomimi had represented either a mythological story, or perhaps a scene from a Greek tragedy, by mute gestures, while a chorus, placed in the background, sang cantica to narrate the fable, or to describe the action of the scene. The question is whether mute pantomimic action, which is the essence of modern ballet, was carried through those court entertainments, in which kings, queens, princes, and princesses took parts with the courtiers; or whether it is of later growth, and derived from professional dancers upon the stage. The former is the general opinion, but an analysis of the only ballet which is known to have been printed in a complete form during the 16th century, would lead to the inference that the court entertainments of Italy and France were masques, or masks, which included declamation and song, like those of Ben Jonson with Inigo Jones for the court of James I.

The introduction of the Italian style of ballet into France was on the occasion of the marriage of the Duc de Joyeuse with Mdle. de Vaudemont, sister to the queen. This was in 1581; and the ballet was printed in 1582, in a small folio of eighty-two leaves, with music, dialogue, engravings of the scene and of the fancy dresses, and full details of the plot. It is entitled Ballet Comique de la Roynie, because the queen took a part in it, as one of the maïades, with her ladies; but they were only posed upon machinery to be looked at, and neither spoke nor sang. One lady of the court sang a song, two others a duet, and, again, others a chorus. Jupiter and Mercury each sang a song, but Circe and the rest spoke poetry. The king's musicians, as tritons, were the mainstays of the music; the ladies and gentlemen of the court appeared in splendid fancy dresses, and danced the entrées. The inventor of the ballet was Baltazarini Belgioioso, who had assumed the name of Baltasar de Beaujoyeux upon his appointment as first musician to

Catherine de Medicis, queen dowager of France. The disuse of dialogue and of vocal music in ballet seems to have been arrived at only by degrees. One of the most complete books upon the subject is by the Jesuit Le Père Menestrier (Claude Francois) *Des Ballets Anciens et Modernes*, 12mo, 1681. He was the inventor of a ballet for Louis XIV. in 1658; and in his book he analyses about fifty of the early Italian and French ballets. His definition is as follows:—"Ballets are dumb comedies, which should be divided into acts and scenes, like other theatrical pieces. Recitations divide them into acts, and the entrées of dancers are equal in number to the scenes." So recitation had not then been dispensed with. At length the opinion gained ground that, in stage representations, the actions, feelings, and passions could be more faithfully, gracefully, and intelligibly expressed to the eye by pantomimic action, than it would be possible to do to the ear. The art of dramatic expression then became a greater object of study; and, perhaps, from about the middle of the last century, or in the time of Noverre, the spectators have been prepared only by a short printed summary of the story which was to be represented.

(W. CH.)

BALLINA, a seaport and market-town of Ireland, county of Mayo, 18 miles N.N.E. of Castlebar, situated on the River Moy, which is here crossed by two bridges. It has a parish and a Roman Catholic church (the latter being in the suburb of Ardnaree on the opposite side of the river), Baptist and Methodist chapels, a court-house, three branch banks, a workhouse, hospital, dispensary, barracks, and several schools. A convent was erected in 1867. The salmon fishery and fish-curing are important branches of its trade; and it has also breweries and flour-mills, and manufactures snuff and coarse linen. The amount of harbour receipts in 1873 was £1266. In 1798 Ballina was for a short time in the possession of the French, under General Humbert. In the neighbourhood there is an interesting dolmen, proved by the early annals of Ireland to belong to the 5th century A.D. (*vide* Fergusson's *Rude Stone Monuments*). To the east of the village are the remains of an abbey, with a Gothic door-case in fine preservation (Archdall). Population in 1871, 5551.

BALLINASLOE, a town of Ireland, province of Connaught, 91 miles W.S.W. of Dublin. The River Suck, an affluent of the Shannon, divides it into two parts; the western being in the county of Galway, the eastern in the county of Roscommon. They are connected by two bridges and a causeway across an island. The town is clean and well built, and contains a handsome church, with a singular octagonal spire springing from scrolls. There are Roman Catholic and Methodist chapels, several public schools, a district lunatic asylum, union, workhouse, market-house, a savings bank (established in 1822), several flour-mills, and breweries. In the neighbourhood is Garbally Castle, the seat of the earl of Clancarty. A great annual cattle fair is held here from the 5th to the 9th of October. Its importance may be judged from the fact, that in 1874 there were exposed for sale 18,018 horned cattle and 65,130 sheep. The *Western Star* is published in the town. Population in 1871, 4619.

BALLOON. See AERONAUTICS, vol. i. pp. 187-207.

BALLOT, or secret voting, has been employed in political, legislative, and judicial assemblies, and also in the proceedings of private clubs and corporations. At Athens, the dicasts, in giving their verdict, generally used balls of stone (*psephi*) or of metal (*sponduli*). Those pierced in the centre, or black in colour, signified condemnation; those unpierced, or white, signified acquittal. The boxes were variously arranged; but generally a brass box received both classes of votes, and a wooden box received the unused balls. In the assembly, cases of *privilegia*, such as ostracism,

the naturalisation of foreigners, or the release of state-debtors, were decided by secret voting. The petalism, or voting by words on olive-leaves, practised at Syracuse, may also be mentioned. At Rome the ballot was introduced to the comitia by the *Leges Tabellariae*, of which the *Lex Gabiniana* (139 B.C.) relates to the election of magistrates, the *Lex Cassia* (137 B.C.) to *judicia populi*, and the *Lex Papiria* (131 B.C.) to the enactment and repeal of laws. The wooden *tabellae*, placed in the *cista*, or wicker box, were marked U. R. (*uti rogas*) and A. (*antiquo*) in the case of a proposed law; L. (*libero*) and D. (*damno*) in the case of a public trial; in the case of an election, *puncta* were made opposite the names or initials of the candidates. *Tabellae* were also used by the Roman judges, who expressed their verdict or judgment by the letters A. (*absolvo*), C. (*condemno*), and N. L. (*non liquet*).¹

In Great Britain the ballot was suggested for use in Parliament by a political tract of the time of Charles II. It was actually used by the Scots Parliament of 1662 in proceeding on the "Billeting Act," a measure proposed by Middleton to secure the ostracism of Lauderdale and other political opponents who were by secret vote declared incapable of public office. The plan followed was this: each member of Parliament wrote, in a disguised hand, on a piece of paper, the names of twelve suspected persons; the billets were put in a bag held by the registrar; the bag was then sealed, and was afterwards opened and its contents ascertained in the Exchequer Chamber, where the billets were immediately burned, and the names of the ostracised concealed on oath. The Billeting Act was repudiated by the king, and the ballot was not again heard of till 1705, when Fletcher of Saltoun, in his measure for a provisional government of Scotland by annual Parliaments in the event of Queen Anne's death, proposed secret voting to protect members from court influence. The gradual emancipation of the British Parliament from the power of the Crown, and the adoption of a strictly representative system of election, have not only destroyed whatever reason may once have existed for the ballot in deliberative voting, but have rendered it essential that such voting should be open. It was in the agitations for parliamentary reform at the beginning of the 19th century that the demand for the ballot in parliamentary elections was first seriously made. The Benthamites advocated the system in 1817.² At the Peterloo Massacre (1819) several banners were inscribed with the ballot. O'Connell introduced a bill on the subject in 1830; and the original draft of Lord John Russell's Reform Bill, probably on the suggestion of Lords Durham and Duncannon, provided for its introduction. Later on Mr Grote became its chief supporter in the House of Commons; and from 1833 to 1839, in spite of the ridicule cast by Sydney Smith on the "mouse-trap," and on Mr Grote's "dagger-box, in which you stab the card of your favourite candidate with a dagger,"³ the minority for the ballot increased from 106 to 217. In 1838 the ballot was the fourth point of the People's Charter. In the same year the abolition of the land qualification introduced rich commercial candidates to the constituencies. Lord Melbourne's cabinet declared the question open. The cause, upheld by Macaulay, Ward, Hume (in his resolutions, 1848), and Berkeley, was strengthened by the Report of Lord Hartington's Select Committee (15th March 1870),⁴ to the effect that corruption, treating, and intimidation by priests and landlords took place to a large

¹ In Saxony juries still vote by ballot.

² See the powerful article by James Mill, *Westminster Rev.*, vol. xiii.

³ For a description of Mr Grote's card-frame, in which the card was punctured through a hole, and was thus never in the voter's hands, see *Spectator*, 25th February 1837.

⁴ Parliamentary Papers, 1868-9, R. 352, 352-I; and 1870, R. 115

extent at both parliamentary and municipal elections in England and Ireland; and that the ballot, if adopted, would probably not only promote tranquillity at elections, but protect voters from undue influence, and introduce greater freedom and purity in voting, provided secrecy was made inviolable except in cases where a voter was found guilty of bribery, or where an invalid vote had been given. At Manchester and Stafford in 1869, test ballots had taken place on the Australian principle as practised in Victoria,—the voting card containing the names of all the candidates, printed in different colours (for the benefit of illiterate voters), and the voter being directed to score out the names of those he did not support, and then to place the card (covered by an official envelope) in the box. It was found at Manchester that the voting was considerably more rapid, and therefore less expensive, than under the old system; that only 80 cards out of 11,475 were rejected as informal; and that, the representatives of candidates being present to check false statements of identity, and the public outside being debarred from receiving information what voters had voted, the ballot rather decreased the risk of personation. At Manchester the cards were not numbered consecutively, as is done in Victoria, so that (assuming the officials to be free from corruption) no scrutiny could have detected by whom particular votes were given. At Stafford the returning officer stamped each card before giving it to the voter, the die of the stamp having been finished only on the morning of the election. By this means the possibility was excluded of what was known in the colonies as "the Tasmanian Dodge," by which a corrupt voter gave to the returning officer, or placed in the box, a blank non-official ticket, and carried out from the booth his official card, which a corrupt agent then marked for his candidate and gave, so marked, to corrupt voter No. 2 (before he entered the booth), on condition that he also would bring out his official card, and so on *ad libitum*; the agent thus obtaining a security for his bribe, unless the corrupt voter chose to disfranchise himself by making further marks on the card.

At the close of 1870 the ballot was employed in the election of members for the London School Board, under the Education Act of that year.

In 1872 Mr Forster's Ballot Act (35 and 36 Vict. c. 33) introduced the ballot in all parliamentary and municipal elections, except parliamentary elections for universities; and the code of procedure prescribed by the Act was adopted by the Scotch Education Board in the first School Board election (1873), under "The Education (Scotland) Act, 1872." It is impossible here to analyse the Ballot Act, which not only abolishes public nominations of candidates, but deals with the offence of personation and the expenses of elections. As regards the ballot, a white paper is used on which the names of the candidates are printed in alphabetical order, the voter filling up with a X the blank on the right hand opposite the name he votes for. The paper, before being given out, is marked by the presiding officer on both sides with an official stamp, which is kept secret, and cannot be used for a second election within seven years. The paper is marked on the back with the same number as the counterfoil of the paper which remains with the officer. This counterfoil is also marked with the voter's number on the register, so that the vote may be identified on a scrutiny; and a mark on the register shows that the voter has received a ballot paper. The voter folds up the paper so as to conceal his mark, but to show the stamp to the officer, and deposits it in the box, which is locked and sealed, and so constructed that papers cannot be withdrawn without unlocking it. Papers inadvertently spoiled by the voters may be exchanged, the officer preserving separately the spoiled papers. If a voter is incapacitated from blindness, or other physical cause, or

makes before the officer a declaration of inability to read, or when the poll is on a Saturday declares himself a Jew, the officer causes the paper to be marked as the voter directs, and keeps a record of the transaction. A voter who claims to vote after another has voted in respect of the same qualification, obtains a (green) paper which is not placed in the box, but preserved apart as a "tendered" paper. He must, however, declare his identity, and that he has not already voted. The presiding officer, at the close of the poll, has to account to the returning officer for the papers entrusted to him, the number being made up by—(1) papers in the box, (2) spoiled papers, (3) unused papers, and (4) tendered papers. During the voting (for which schoolrooms and other public rooms are available, and for which a separate compartment must be provided for every 150 electors entitled to vote at a station) agents of candidates are allowed to be present in the polling-station, but they, as well as the officials, are sworn to secrecy as regards who have voted, and for whom; and they are prohibited from interfering with the voter, inducing him to show his vote, or attempting to ascertain the number on the back of the paper. These agents are also present with the returning officer when he counts the papers and the votes, rejecting those papers—(1), which want the official mark on the back; (2), on which votes are given for more candidates than the voter is entitled to vote for; (3), on which anything except the number on the back is marked or written by which the voter can be identified; (4), which are unmarked, or so marked that it is uncertain for whom the vote is given. The counted and rejected papers, and also the "tendered" papers, counterfoils, and marked register (which have not been opened), are, in parliamentary elections, transmitted by the returning officer to the clerk of the Crown in Chancery in England, or the sheriff-clerk in Scotland, who destroys them at the end of one year, unless otherwise directed by an order of the House of Commons, or of some court having jurisdiction in election petitions. Such petitions either simply dispute the accuracy of the return on the ground of miscounting, or wrongous rejection or wrongous admission of papers, in which case the court examines the counted and rejected papers; or make allegations of corruption, &c., on which it may be necessary to refer to the marked counterfoils and ascertain how bribed voters have voted. Since the elections of 1874 much discontent has been expressed, because judges have rejected papers with trifling (perhaps accidental) marks other than the X upon them, and because elections have been lost through the failure of the officer to stamp the papers. For this purpose the use has been suggested of a perforating instead of an embossing stamp, while a dark ground paper with white voting-spaces would make *misplaced* votes impossible. The Ballot Act has introduced several new offences, such as forging or fraudulently defacing or destroying a paper or the official mark; supplying a paper without due authority; fraudulently putting into the box a non-official paper; fraudulently taking a paper out of the station without due authority; destroying, taking, opening, or otherwise interfering with a box or packet of papers then in use for election purposes. These offences, and attempts to commit them, are punishable in the case of officers and clerks with imprisonment for two years, with or without hard labour. In other cases the term of imprisonment is six months.

The ballot being thus *un fait accompli* in the United Kingdom, it is now scarcely necessary to indicate the arguments by which it was supported and opposed. It has been found possible to render voting perfectly secret and to provide for a scrutiny. It would be foolish to expect that secret voting will be a perfect security for independent voting. Bribery, treating, and intimidation continue to

be practised, but with diminished effect. Bribery may still be made conditional on the briber's success, but the Act is felt to be an expression of national opinion against all interference with individual judgment. The argument that the franchise is a public trust, to the exercise of which a public responsibility should attach, would be conclusive if the "selfish partialities" of the voter were the chief evil. The ballot was declared to lead to universal hypocrisy and deception; and Sydney Smith spoke of "voters, in dominoes, going to the poll in sedan-chairs with closely-drawn curtains." The observed effect of a secret ballot is, however, gradually to exterminate undue influence and canvassing; and when the necessity for secrecy is removed, votes are not kept secret. The alarm of "the Confessional" seems to be unfounded, as a Catholic penitent is not bound to confess his vote, and if he did so, it would be a crime in the confessor to divulge it.

The ballot is used very largely in the British Colonies and on the Continent. In South Australia, under the Constitution Act of 1856 and the Electoral Act of 1858, both the Legislative Council and the House of Assembly are elected by manhood suffrage under the ballot, the returning officer putting his initials on the voting card, which the voter is directed, under pain of nullity, to fold so that the officer may not see the vote which is indicated by a cross. The cards are destroyed when the poll is announced; and thus personation, though proved against certain voters for the purpose of punishing them, would not void an election, for there can be no scrutiny before the Court of Disputed Returns. Canvassing has almost disappeared. In Victoria, under the Electoral Act of 1865 (29 Vict. c. 279), both the Legislative Council and the Legislative Assembly are elected practically by manhood suffrage under the ballot; which was introduced in 1856. The officer adds to his initials a number corresponding to the voter's number on the register, and the cards are preserved till after the time for petitioning the Committee of Elections and Qualifications has expired, so that a scrutiny may take place of challenged votes. The important Road Boards under the Local Government Consolidation Act of 1869 are also elected by ballot. In Tasmania the chief peculiarity is that (as in South Australia) the card is not put directly by the voter into the box, but handed to the officer who puts it there (this being thought a security against double voting or voting with a non-official card, and also against the voter carrying away his card); here also the cards are destroyed immediately, while in New South Wales, where, as in Victoria, the voting is by scoring out and not by a cross, the cards are kept for five years. The vigorous municipal boards of these colonies are also elected by ballot, which has diminished expense and undue influence very greatly, but has not produced complete secrecy of voting.

In France, where from 1840 to 1845 the ballot, or *France*, *scrutin*, had been used for deliberative voting in the Chamber of Deputies, its use in elections to the Corps Législatif was carefully regulated at the beginning of the Second Empire by the Organic Decree of 2d February 1852. Under this law the voting was superintended by a bureau consisting of the deputy returning officer (called president of the section), four unpaid assessors selected from the constituency, and a secretary. Each voter presents a polling card, with his designation, date of birth, and signature (to secure identity), which he has previously got at the *Mairie*. This the president mutilates, and the vote is then recorded by a "bulletin," which is not official, but is generally printed with a candidate's name, and given to the voter by an agent outside, the only conditions being that the bulletin shall be "sur papier blanc, sans signes extérieurs, et préparé en dehors de l'assemblée." The

total number of votes given (there being only one member in each electoral district) is checked by reference to "la feuille d'appel et inscription des votants," the law still supposing that each voter is publicly called on to vote. If the voter, when challenged, cannot sign his polling card, he may call a witness to sign for him. The following classes of bulletins are rejected:—"illisibles, blancs, ne contenant pas une désignation suffisante; sur lesquels les votants se sont fait connaître; contenant le nom d'une personne n'ayant pas prêté le serment prescrit" (*i.e.*, of a person not nominated). Only the votes pronounced bad by the bureau in presence of representative scrutineers are preserved, in case these should be called for during the "Session pour vérification des Pouvoirs." Practically the French ballot did not afford secrecy, for you might observe what bulletin the voter took from the agent, and follow him up the *queue* into the polling-place; but the determined voter might conceal his vote even from the undue influence of Government by scratching out the printed matter and writing his vote. This was always a good vote, and scrutiny of good votes was impossible. The ballot is still used in the elections to the National Assembly, but in the Assembly itself only in special cases, as, *e.g.*, in the election of a "rapporteur." Under the law of 10th August 1871, the conseils généraux (departmental councils) are elected by ballot. In Piedmont the ballot formed part of the free constitutional government introduced by Charles Albert in March 1848; it was extended to Italy in 1861. Voting for the Italian Chamber of Deputies takes place under the law of 20th November 1859, and in public halls (not booths), to which admission is gained by showing a certificate of inscription, issued by the mayor to each qualified voter. A stamped blue official paper, with a memorandum of the law printed on the back (*bolletino spiegato*), is then issued to the elector; on this he writes the name of a candidate (there being equal electoral colleges), or, in certain exceptional cases, gets a confidential friend to do so, and hands the paper folded up to the president of the bureau, who puts it in the box (*urna*), and who afterwards presides at the public "squitinio dei suffragi." No scrutiny is possible; canvassing and bribery are rare; and Cavour thought the ballot had quite nullified the clerical power, at least in Piedmont. Greece is the only European country in which the ball ballot is used. The voting takes place in the churches, each candidate has a box, on which his name is inscribed, one half (white) being also marked "Yes," the other half (black) "No." The voter, his citizenship or right to vote in the eparchy being verified, receives one ball or leaden bullet for each candidate from a wooden bowl, which a clerk carries from box to box. The voter stretches his arm down a funnel, and drops the ball into the "Yes" or "No" division. The vote is secret, but there is apparently no check on "Yes" votes being given for *all the candidates*, and the ball or bullet is imitable. In the United States a most imperfect ballot system prevails. In many states there is no register, and therefore personation and double voting are practised. Again, there is no official card, but, as in the Shanty system of New York, candidates' touts give out printed and designed cards, which sometimes fraudulently imitate one another in design, so that ignorant voters are misled. Again, the ballot is generally taken in an engine-house, or shed open to the street, so that mob-intimidation may be used, and votes, as in France, are not practically secret. In Massachusetts, in 1851-2, the Know-nothing or Anti-Irish party, anxious to prevent personation, introduced a secret ballot for state elections, using the Manchester envelope and an official card, with the names of the candidates printed. This led to fraud and was abandoned, a return being made to the French system.

The history of the ballot in Hungary is remarkable. Before 1848, secret voting was unknown there. The electoral law of that year left the regulation of parliamentary elections to the county and town councils, very few of which adopted the ballot. The mode of voting was perhaps the most primitive on record. Each candidate had a large box with his name superscribed, and painted in a distinguishing colour. On entering the room alone the voter received a rod from 4 to 6 feet in length (to prevent concealment of non-official rods on the voter's person), which he placed in the box through a slit in the lid. By the electoral law of 1874,¹ the ballot in parliamentary elections in Hungary is abolished, but is made obligatory in the elections of town and county councils, where votes are given for several persons at once.² This voting, however, carried on by party-lists on differently coloured cards is practically open. There is a strong feeling in Hungary that the ballot would be worked by the Catholic clergy through the Confessional. As most of the electors are freeholders, there is little intimidation. In Prussia, Stein, by his Städteordnung, or Municipal Corporation Act of 1808, introduced the ballot in the election of the Municipal Assembly (*Stadtverordneten Versammlung*). Under the German Constitution of 1867, and the New Constitution of 1st January 1871, the elections for the Reichstag are conducted by universal suffrage under the ballot in conformity with the Electoral Law of 31st May 1869, which also divided Germany into equal electoral districts.

To secure complete secrecy, and to avoid the possibility of fraud and the large expense of printing and counting machines, ballot papers, several ballot machines or registers have been invented. In that of Vassie there was an arrangement of confluent funnels, by which the voter was prevented from dropping more than one ball into the box. In that of Chamberlain the number of votes given was indicated by the ringing of a bell. In that of Sydserff,³ the ball was placed by the sheriff in the common duct, and the voter, by moving a lever, guided it into a channel leading to the box of a particular candidate. Generally, it may be said that these mechanical contrivances have been attempts to make the ball-system secret and accurate, each voter depositing a ball, and the accumulated balls showing the state of the poll. This in a large constituency would become unwieldy, and no permanent record of the poll (except the collocation of the balls) would be obtained. A considerable advance is made in the invention of Mr James Davie, Edinburgh, which we select for detailed description. Of this register an essential part is the wooden chamber (4 feet square by 7 feet in height) which the voter, having received a metal ball from the sheriff, enters by a spring-hinged door to which a lever is attached. On one side of the chamber is a box, on the lid of which stand differently coloured cups, marked each with a number and the name of a candidate. Inside the box is a cylinder traversed lengthwise by a spindle, and having at one end a toothed wheel. By a screw-nut the cylinder revolves on and moves along the spindle. On the cylinder is paper divided into spaces, which correspond with the cups, and above this a sheet of carbonised paper as a printing medium. A pinion connects the cylinder with the door-lever, so that the opening of the door drives round the paper one space. A steel type, suspended on an elastic card, is centred to each cup. The voter having placed the ball in a cup, leaves the chamber by another spring-hinged door, which in opening displaces

¹ Hungary is now being divided into equal electoral districts.

² On the other hand, by the 2d of the original bye-laws of the Bank of England, it was provided that the ballot should be used in the general courts "in any question concerning only one person, matter, or thing."

³ Letters-Patent, No. 63 of 1869.

the bottoms of the cups, and thus causes the ball to drop on the head of the type, beneath which it presses against the recording sheet on the cylinder. The ball immediately rolls down a groove to the sheriff's desk outside the chamber, where it is handed to the next voter, *only one ball being used* in connection with each register (unless, of course, there are more votes than one to be given). The closing of the exit door restores the bottoms to the cups. This simple and effectual plan has the merit of secrecy, of immediate detection of fraud (*e.g.*, the introduction of a non-official ball to the cup), of rapidity in voting and in counting, and of leaving almost nothing to the voter's presence of mind. The voter can make only one well-defined mark on the paper, and this he can do only in leaving the chamber before the next voter has entered. Mr Davie's invention, which in 1870 received a prize from the Royal Scottish Society of Arts, is obviously not adapted to cumulative voting, but may be worked with any number of candidates under single voting. Although the motion of the cylinder would record in a diagonal direction the series of votes, it would be practically impossible to identify votes from a numbered list of the voters. (w. c. s.)

BALLYCASTLE, a seaport town of Ireland, county Antrim, situated on a bay opposite Rathlin island. The town is well built, consisting of two parts, about a quarter of a mile asunder, and connected by a fine avenue. Towards the close of the 18th century, one of the Boyd family devoted himself to the extension and improvement of the town, establishing manufactures, endowing charities, and building churches, and succeeded in producing a temporary vitality. Upwards of £150,000 is said to have been expended upon the pier and harbour; but the violence of the sea overthrew the former, and the latter has been filled with sand. To the east of the town are the remains of an abbey. Population in 1871, 1253.

BALLYMENA, a town of Ireland, county Antrim, on the Braid, an affluent of the Maine, two miles above their junction. It is 33 miles N.N.W. of Belfast, with which it is connected by railway. The town owes its prosperity chiefly to its linen trade, introduced in 1733, which gives employment to the greater part of the inhabitants. It has a parish church, several chapels and schools, a market-house, and four branch banks. There is a newspaper published in the town called the *Ballymena Observer*. Population in 1871, including Hanyville in the suburbs, 7931.

BALLYSHANNON, a seaport and market-town of Ireland, county of Donegal, situated at the mouth of the Erne. Lat. 54° 30' N., long. 8° 11' W. The river is here crossed by a bridge of fourteen arches, which connects the town with the suburb of Purt. Below the bridge the river forms a beautiful cascade, 150 yards wide, with a fall at low water of 16 feet. The harbour is a small creek of Donegal Bay, about 600 yards long and 350 yards broad, and is only accessible to small vessels. The town contains a church, several chapels, a bank, a market-house, barracks, and a union workhouse. The salmon fishery is the only important occupation. Previous to the Union Ballyshannon returned two members to the Irish Parliament. Population in 1871, 2958.

BALMEZ, JAIME LUCIEN, a Spanish ecclesiastic, eminent as a political writer and a philosopher, was born at Vich in Catalonia, on the 28th August 1810, and died there on the 9th July 1848. The most important of his works, and that on which his fame principally rests, is entitled *El Protestantismo comparado con el Catolicismo en sus relaciones con la Civilizacion Europea*, published 1842-44, a most able defence of Catholicism. It has been translated into French, Italian, German, and English. The best of his philosophical works, which are able expositions of

the old scholastic system of thought, are the *Filosofia Fundamental*, 1846, and the *Curso de Filosofia Elemental*, 4 vols. 1847. The *Protestantism and Catholicity* and the *Fundamental Philosophy* have both been translated into English (1849, 2 vols. 1857). Nearly all the works are to be had in German and French. See M. de Blanche-Raffin, *Jacques Balmez, sa Vie et ses Ouvrages*, Paris, 1849.

BALMORAL CASTLE, a residence of Her Majesty Queen Victoria, on the right bank of the River Dee, about 9 miles above Ballater and 50 miles from Aberdeen. The property, which now consists of upwards of 10,000 acres, besides a large tract of hill ground, belonged in its original extent to the Farquharsons of Inverey, by whom it was sold to the Earl of Fife. In 1848 it was leased by the late Prince Consort, and in 1852 was finally purchased for a sum of £32,000. The castle, which was erected at Prince Albert's private expense, is of the Scotch baronial style of architecture.

BALNAVES, HENRY, a Scottish Protestant, born at Kirkcaldy in Fife, in the reign of James V., and educated at the university of St Andrews. There is some doubt both as to the exact date of his birth, which has been fixed as 1520, and as to the rank in society to which he belonged. He completed his studies on the Continent, and, returning to Scotland, entered the family of the Earl of Arran, who at that time was regent; but in the year 1542 the earl dismissed him for embracing the Protestant religion. In 1546 he was implicated in the murder of Cardinal Beaton, at least he is known to have taken refuge with the conspirators in the castle of St Andrews; and when they were at last obliged to surrender to the French, he was sent with the rest of the garrison as a prisoner to France. During his confinement at Rouen he wrote the work entitled *Confession of Faith*, to which Knox added marginal notes and a preface; but it was not published till 1584, five years after his death. He returned to Scotland about the year 1559, and having joined the Congregation, was appointed one of the commissioners to treat with the duke of Norfolk on the part of Queen Elizabeth. In 1563 he was made one of the lords of Session, an office which he is said to have held for the first time in 1538, and was appointed by the General Assembly, with other learned men, to revise the *Book of Discipline*. Knox, his contemporary and fellow-labourer, gives him the character of a very learned and pious man. Balnaves died at Edinburgh in 1579.

BALSAM, an oleo-resin or natural compound of resin and essential oil, in such proportions that the substance is in a viscous or semi-fluid condition. The gradations from a solid resin to a limpid essential oil are insensible, and most resins have a balsamic consistency on their exudation, only hardening by exposure to air. It has been proposed to limit the name balsam to such substances as contain cinnamic or an analogous acid in addition to the volatile oil and resin which turpentine contains alone; but this distinction has not been carried out.

The fragrant balsams which contain cinnamic or benzoic acid may, however, be regarded as a distinct class, allied to each other by their composition, properties, and uses. Those of this class found in commerce are the balsam of Peru, balsam of Tolu, liquid storax, and liquidambar. *Balsam of Peru* is the produce of a lofty leguminous tree, *Myrospermum peruvianum*, growing within a limited area in San Salvador, Central America, but now introduced into Ceylon. It is a thick, viscid oleo-resin of a deep brown or black colour and a fragrant balsamic odour. It has been analysed by Kachler, who thus states its percentage composition,—cinnamic acid 46, resin 32, benzylic alcohol 20. It is used in perfumery, and in medicine as a stimulant application to indolent sores, as well as internally for

asthma and pectoral complaints. *Balsam of Tolu* is likewise produced from a species of *Myrospermum*, *M. toluiferum*. It is of a brown colour, thicker than Peru balsam, and attains a considerable degree of solidity on keeping. It also is a product of equatorial America, but is found over a much wider area than is the balsam of Peru. Tolu balsam consists of a combination of inodorous resin with cinnamic acid, no benzoic acid being present in it. It is used in perfumery and as a constituent in cough syrups and lozenges. *Liquid storax* is a balsam yielded by *Liquidambar orientalis*, a native of Asia Minor. It is a soft resinous substance, with a pleasing balsamic odour, especially after it has been kept for some time. It contains a principle—styrol or cinnamene—to which it owes its peculiar odour, besides cinnamic acid, stryacin, and a resin. Liquid storax is used in medicine as an external application in skin diseases, and internally as an expectorant. An analogous substance is derived from *Liquidambar Alvingia* in Java. *Liquidambar balsam* is derived from *Liquidambar styraciflua*, a tree found in the United States and Mexico. It contains cinnamic acid, but is destitute of benzoic acid.

Of balsams entirely destitute of cinnamic and benzoic constituents the following are found in commerce:—*Mecca Balsam* or *Balm of Gilead*, yielded by the *Balsamodendron Perryi* (*B. gileadense* of De Candolle), a tree growing in Arabia and Abyssinia, is supposed to be the balm of Scripture and the *Βάλσαμον* of Theophrastus. When fresh it is a viscid fluid, with a penetrating odour, but it solidifies with age. It was regarded with the utmost esteem among the nations of antiquity, and to the present day it is peculiarly prized among the people of the East. *Balsam of Copaiba* or *Capivi* is a fluid oleo-resin of a pale brown or straw colour, produced from several trees of the genus *Copaifera*, growing in tropical America. It possesses a peculiar odour and a nauseous persistent tarry taste. Balsam of copaiba contains from 40 to 60 per cent. of essential oil, holding in solution a resin from which capivic acid can be prepared. It is chiefly used in medicine for the treatment of inflammatory affections of mucous surfaces. Under the name of *Wood Oil*, or *Gurjun Balsam*, an oleo-resin is procured in India and the Eastern Archipelago from several species of *Dipterocarpus*, chiefly *D. turbinatus*, which has the odour and properties of copaiba, and is used for it in East Indian hospital practice. Wood oil is also used as a varnish in India, and forms an effective protection against the attacks of white ants. A substitute for copaiba is also found in the dark red balsam yielded by *Hardwickia pinnata*, a leguminous tree.

Canada Balsam.—The oleo-resins obtained from coniferous trees are usually termed turpentine, but that yielded by *Abies balsamea* is known in commerce as Balsam of Canada. It is a very transparent substance, somewhat fluid when first run, but thickening considerably with age, possessed of a delicate yellow colour, and a mild terebinthous odour. According to Flückiger and Hanbury it contains 24 per cent. of essential oil, 60 per cent. of resin soluble in alcohol, and 16 per cent. of resin soluble only in ether. It has been used for the same purposes as copaiba, but its chief uses are for mounting preparations for the microscope and as a varnish.

BALTA, the chief town of a circle of the same name in the Russian government of Podolia. It stands on the Kodima, near its junction with the Bug, and carries on a large trade in cattle and horses and the raw products of the surrounding district. It has two great annual fairs, the more important being held at Whitsuntide and the other in June. A variety of industries, such as tallow-melting, soap-boiling, tile-making, and brewing are likewise prosecuted. The Jews form a very considerable part of the

population, which in 1867 numbered 14,528. Balta was in great part destroyed by the Russians in 1780.

BALTARD, LOUIS PIERRE, a distinguished French architect and engraver, was born at Paris in 1765, and died in 1846. He was originally a landscape painter, but in his travels through Italy was so much struck with the beauty of the Italian buildings, that he changed his profession and devoted himself to architecture. In his new occupation he achieved great success, and was selected to prepare the plans for some of the largest public edifices in Paris. His reputation, however, rests not so much on his practical performances in architecture as on his great skill in the art of engraving. Among the best known of his plates are the drawings of Paris (*Paris et ses Monuments*, 2 vols. fol., 1803), the engravings for Denon's *Égypte*, the illustrations of Napoleon's wars (*La Colonne de la grande Armée*), and those contained in the series entitled the *Grand Prix de l'Architecture*, which for some time he carried on alone. He has also gained distinction as an engraver of portraits.

BALTIC SEA. The name by which this inland sea is commonly designated is first found in the 11th century, in the work of Adam of Bremen, entitled *Chorographia Scandi-*



Sketch Map of Baltic Sea.

navia. The derivation of the word is uncertain. It seems probable that, whatever may be the etymology of the name *Baltic*, that of the Great and Little Belts is the same. The Swedes, Danes, and Germans call it the *Ostsee* or East Sea. The Baltic is enclosed by Sweden, Russia, the German empire, and Denmark; and it communicates with the North Sea, by the winding channel which lies between the southern part of the Scandinavian peninsula and the northern peninsula of Schleswig and Jutland. The first part of this channel is in great measure blocked by the islands of Zealand and Fünen, so as to form the three narrow passages which are known as the Sound (between