

zens, hitherto opposed to the abolition of the discriminating clause in the Constitution of Rhode Island, will be found either heartily in favor of the changes proposed or else passively submitting to those changes, having discovered that the net result of the existence of these discriminations in the Constitution has not been in favor of political virtue, or the absence of the corruption which exists in many quarters in which no suffrage discrimination is made. For, after all, the best methods of government can be best proved by results. If discriminating suffrage qualifications are productive of corruption equally with a suffrage which does not discriminate, then wherein lies the advantage of the discrimination? It is quite safe to assume that a large mass of voters cannot so readily be purchased as a small one. It is not believed that the canvass will proceed on exactly the same party lines as those upon which the Presidential contest of 1884 did. Some Independents who supported Cleveland will be opposed to the Democratic party, though not many. On the other hand, it is quite certain that all the Democrats who supported Mr. Blaine will be found again in the ranks of their old party, and added to them will be a large section of the Republican party which supported Blaine, and which now realizes that fundamental changes are necessary in order to bring the State to a condition of political honesty. The Democratic party is fully determined to have no one on its ticket in any town or city, or on the State ticket, who is not of reputable character. It will seek to find out its best men as candidates for all offices, and personal interests will in the main yield to the success of the principles which are at stake.

#### LINEN PAPER VS. COTTON PAPER.

By dint of frequent repetition, the statement that two kinds of paper, distinguished as cotton paper and linen, or, as it is often called, rag paper, were in common use in Europe from a very early period, has gradually come to be generally accepted as true by palæographers and antiquarians. Upon equally good authority it is commonly believed that, while cotton paper was introduced into Europe by the Arabs in the seventh or eighth century, linen (or rag) paper was a European invention of much later date. But the time and place of the invention of linen paper, notwithstanding the long and learned controversies of the last century, have remained shrouded in mystery; nor does there seem to be any immediate prospect of arriving at a definite conclusion concerning these points. In the light of recent discoveries, however, the main question at issue, the comparative antiquity of cotton and linen paper, is in a fair way soon to be solved, if indeed we have not already before us evidence amply sufficient to enable us to reach a final decision, and a decision in direct opposition to the current belief.

The question is one of long standing, and by Mabillon, the founder of the science of palæography, Montfaucon, Tiraboschi, and other scholars, it was earnestly discussed; but inasmuch as no definite rules could be laid down for distinguishing with certainty cotton from linen paper, the discussion, which was characterized by much vehemence of language and a lavish display of learning, seemed likely to be prolonged indefinitely, with little probability of arriving at any satisfactory conclusion. At last, in 1762, prizes

were offered by the Royal Society of Göttingen, and by Gerard Meerman of Rotterdam, for the oldest genuine specimens of linen paper, in hope of thus bringing to light some positive evidence as to the date of its invention or introduction. Many specimens of ancient paper manuscripts from Germany, Italy, Spain, etc., were submitted to the committee intrusted with the award. After a long and careful examination of these manuscripts the committee reported, as the result of their investigations, that no evidence had been produced of the use of linen paper before the end of the thirteenth or the beginning of the fourteenth century, while cotton paper appeared to have been used in Europe as early as the beginning of the seventh century, thus deciding the question in favor of cotton paper. Linen paper they held to be a later European invention, but were unable to decide, from the evidence before them, whether it was first manufactured in Italy or in Germany.

It must be borne in mind, however, that the tests upon which the committee relied to distinguish the two varieties of paper were extremely vague and indefinite, being based almost solely upon the external characteristics of the paper, such as softness of surface, flexibility, thickness, color, etc. Indeed, Meerman, who was himself one of the judges, frankly admits that, unless some chemical test can be found by which to determine with certainty the actual constituents of the paper, he has no hope that the time and place of the invention of linen paper will ever be discovered. Bodmann, a later investigator, who made a careful study of the question, also declared that the characteristic differences between cotton and linen papers could not be detected by the unaided senses of sight and touch, and insisted that recourse must be had to the action of fire and water in order to determine the character of the paper with any degree of certainty. Tests of this nature, however, not only proved to be inadequate to the purpose, but were evidently out of the question in the case of valuable and important manuscripts of great antiquity, these being the very ones the character of which it was most desirable to determine. Still, these later investigations, as far as they went, appeared to confirm the conclusions of Meerman and his associates, and, in the absence of any more satisfactory tests which could be applied, these conclusions came to be generally accepted, and since the beginning of this century the question seems to have been looked upon as practically, if not absolutely, settled in favor of the greater antiquity of cotton paper. De Vinne, indeed, in his 'Invention of Printing,' is inclined to doubt the ability of any antiquary to distinguish between cotton and linen paper, and maintains that the peculiarities of the so-called linen and cotton papers are due more to their distinct methods of manufacture than to the material used. In his opinion, the cotton paper of the antiquarians is merely paper the pulp for which was prepared by grinding the raw material, while the linen paper is paper made from pulp which had been beaten by pestles and stamp, and in which the fibres were rather bruised than cut, as they would be if the pulp were ground.

Meanwhile, it had been found that under the microscope the fibres of linen, or flax, are seen to consist of straight, elongated, cylindrical filaments, or tubes, with comparatively thick walls; these filaments are stiff, tough, and elastic, and do not bind or twist together. The fibres of cotton, on the other hand, show themselves in the form of narrow, flat, transparent tubes with thickened edges, twisted several times upon themselves somewhat like a corkscrew, and readily interlacing one with another. Here, then, was the desired test for determining with absolute certainty the composition of any given

specimen of paper, but, as Wattenbach remarked in 1871, the question seemed to have entirely lost its interest, and no attempt was made to reopen it until, in 1884, M. Briquet, a Swiss scholar, published an interesting account of some investigations he had been carrying on. He tells us that, in the course of some researches, undertaken for another purpose, among the Swiss archives, he was surprised to find that the oldest documents there preserved, when examined under the microscope, all proved to be on linen paper. He was thus led to doubt the accepted statements concerning the greater antiquity of cotton paper; and, in order to satisfy his doubts, he succeeded in obtaining, not without difficulty, from various Italian, French, and German archives, fragments of ancient paper manuscripts, ranging in date from the eleventh to the thirteenth century. These fragments, which, it must be remembered, were all considered by palæographical authorities as undoubted specimens of cotton paper, were then subjected to microscopical analysis, and it was found that not one of these so-called cotton papers contained cotton fibres. They all proved to be rag-papers consisting of linen or hemp fibres. Having thus found that the oldest specimens of so-called cotton papers which he had been able to procure are in reality linen papers, M. Briquet is of the opinion that there never was such a thing as cotton paper, and holds that the term cotton paper, when used by early writers, is not to be taken in its literal sense as indicating the composition of the paper, but as referring simply to one of its external qualities, its soft or cotton-like surface.

Without accepting all the conclusions reached by M. Briquet, it cannot be denied that he has proved beyond a doubt that linen paper has a much greater antiquity than any one had hitherto ventured to assign to it. And within the last few months additional evidence has been brought to light which not only confirms the statements of M. Briquet, but establishes the use of linen paper long before the eleventh century, the earliest date for which the Swiss scholar could obtain positive evidence of its use. The remarkable find of ancient manuscripts made a few years ago in Fayum is still fresh in the minds of scholars. The greater number of manuscripts then discovered, ranging in date from the first to the tenth century of our era, have since found their way to Vienna, and form what is known as the Archduke Rainer Collection. Though the papyrus manuscripts, which number upwards of 70,000, constitute the bulk of the collection, there are also many specimens of manuscripts on leather, parchment, and paper; of those on paper, 159 more or less complete manuscripts have been discovered. The latest of these dates from the year 953 A. D., while many are of the eighth century, and some, it is thought, will prove to be of still earlier date. The task of determining the composition of these papers by means of microscopical analysis was intrusted to Prof. Julius Wiesner of the Vienna University, who has lately published the results of his examination, and the most important of these may be briefly stated. He finds, contrary to the opinion of palæographers, who were inclined to consider these manuscripts as being on cotton paper, that all the Fayum papers are rag papers, and are composed chiefly of linen rags. Scattered throughout the mass of worn linen fibres, occasional traces of worn cotton fibres are found, indicating that the rags had been carelessly sorted, or perhaps not sorted at all, though it is evident that the raw material must have consisted almost entirely of linen rags; and so far from being an invention of the fourteenth century, it is now conclusively proved that rag or linen paper was known and in common use at least as early as the eighth century, and that in

all probability it is, not a European, but an Arabian invention.

The examination of these Fayum papers by Prof. Wiesner has also brought to light some interesting facts concerning the material used for sizing. It is frequently stated that the use of starch as a size for paper is a modern European practice, introduced after paper began to be made by machinery, and that the early paper-makers used only a size made from glue or gelatine. But it is now found that, in these Fayum papers of the eighth century, starch was the material used for sizing, though whether it was wheat starch or barley starch has not been positively determined, but the probability is in favor of wheat starch.

#### IBSEN'S "SPECTRES."

BERLIN, January 22, 1887.

SOME six weeks ago the curiosity of the Berlin public was aroused by the announcement of a performance of Henrik Ibsen's domestic drama, "Spectres." This work of the Norwegian poet has made a deep impression in his native land, and attracted widespread attention in Germany. It has been on the repertoire of the Meiningen company for some time past. Towards the close of 1886 the singular statement appeared that the director of the Residenz Theatre of Berlin had obtained permission from the department of police to put the drama on the stage, on condition that it be given once only and for charitable purposes. This had the charm of the extraordinary about it, and those not acquainted with the piece hastened to inform themselves. It is not yet quite clear why these police precautions and conditions were found necessary, for the character of the play is by no means so alarmingly shocking or so dangerous to public morality as the zealots of the daily press have heated themselves into believing. At all events, the peculiarity of the circumstances helped to make this performance the dramatic event of the season. Cheap copies of the text were displayed in all the book-shops. Bill-posters kept the matter before the public, and the amusement columns bristled with "Spectres in preparation." Berlin was haunted.

An amateur rendering of the play took place on the 2d of January, and caused some comment, but the much anticipated professional performance came off at noon on the second Sunday of this year. It was held with "closed doors," the papers announced mysteriously—a thing usual enough at this season, to prevent draughts. The theatre was crowded. Comparatively few tickets reached the general public, the greater part having been disposed of before the opening of the box-office. The director informed me that some two hundred representatives of the German press were present. The audience was one of critical intelligence, and the presence of Henrik Ibsen himself gave the event still greater interest. His appearance on the stage at the close of the first act was the signal for most enthusiastic applause. After the second act this applause, though still hearty, seemed uneasy; the audience was nervous, and when the curtain fell on the last act, the tokens of approval were comparatively faint. But this very fact was partially a tribute to the dramatist's art. So completely does the deep gloom of the closing scene take possession of mind and mood, that clapping seems almost as much out of place as applause at a funeral, and the hands remain involuntarily at one's side. An outline of the play will make this effect intelligible.

The spectres with which Ibsen deals are not the goblins of Romanticism that flit by night and haunt the churchyard; they are far less innocent. They are, first of all, the spectres by which all so-

ciety is haunted: the host of traditions, conventionalities, and prejudices, which, in the form of laws, systems of morality, venerable customs, religious and social observances, put restrictions upon each individual in the name of all. Or they are the revenge that society takes upon those who overstep the traditional bounds of what passes for morality. Or they are the sufferings of those who submit to the conventional requirements and struggle in a false cause. They are, last of all, and these the most ghastly of the spectres—they are the sins of the fathers that are visited upon the children. Such spectres haunt the luxurious home of the Alving. More than twenty years before the opening of the play, Helena, the heroine, was married to the dashing young Lieutenant Alving. Her heart would have had it otherwise, but this was a brilliant match. Her mother was prudent, as the world goes, and had found a man to her turn. This was the first misleading spectre, and Helena's love for Pastor Manders was sacrificed to wealth and position. She was not long in discovering to what manner of man she was wed—a libertine of the lowest order, one that spared not the sanctity of his own home. Mrs. Alving had the choice between two spectres: obedience to the injunctions of established law and religion and a life with a libertine, or flight in defiance of what society enjoined and the pursuit of happiness elsewhere. There would be much to suffer in either case, but she chose the latter course and fled. Society proved too strong. It was to one she loved that she fled, but Pastor Manders was clergyman first and lover only in second degree. He was the representative of all that bore the name of law and order, social, moral, or religious. His brain was haunted by whole troops of these spectres, and, with a self-command of which he was not a little proud, he sermonized in the well-known terms: a wife's place is by her husband's side in prosperity as in adversity, to love, to honor, to obey, and the like. He prevailed. Mrs. Alving returned to her husband, who never learned of this flight.

The spectres of the stronger sort had triumphed, and, as is the case with every finer nature, Mrs. Alving caught the spirit of that noble enthusiasm with which one sacrifices self upon the altar of a high duty, even though the duty be a false one and misunderstood. With the resolution of a strong character, she assumed control of affairs. Her pride assisted her. She resolved that the world should never know that the wealth and luxury of the Alving's home were the whitening of a sepulchre. She proceeded to build up a structure of deceit wherein her husband's excesses and her own misery were to be concealed. An accident gave her the upper hand over her husband. She discovered an affair of his—with her own waiting-maid. This discovery put the sceptre in Mrs. Alving's hand. She found a husband for her maid, and thus saved the girl's reputation. The daughter that was born passed for the child of the poor cabinet-maker, Engstrand. Some years later Mrs. Alving took this child, her husband's daughter, into her own home and cared for her. Lieutenant Alving, in the meantime, was raised to the position of Chamberlain (*Kammerherr*), but his excesses told upon his health. Mrs. Alving assisted him in his duties; did what his debauchery often rendered him unfit for; made herself the companion of his drinking bouts, that she might keep him at home; cared for him; shielded him. Zealously she watched the family honor and concealed her sufferings. A new incentive was given her, and a new hope. She became the mother of a son, but, with heroic self-sacrifice, sent him away from her when he was still but a child, that he might never suspect the truth about his father. Her letters nourished in him a filial reverence, as

for an ideal. So much could love and resolution do. Alving remained unaltered to the end; his excesses caused his death.

After twenty years of married life according to society's prescription, Mrs. Alving is set free. She seems to have accomplished her purpose. The name of Alving is honored in the land, and she resolves to put the final stone to this structure of pious deceit by erecting an asylum to her husband's memory. A second motive moved her to this step. She devotes to this undertaking the whole of the original fortune with which Lieut. Alving had wooed and won her. Nothing but the after accumulations, which were due to her energy alone, shall reach her son. Pastor Manders has been intrusted with the management of the affair, and the asylum, now finished, is to be dedicated on the morrow. This is the situation at the opening of the play. Oswald Alving has returned from his Paris studio. Regine, in the bloom of young womanhood, holds the position her mother once had held. Her supposed father, a rascal of rare hypocrisy, is about to start a "sailors' home," the nature of which is sufficiently indicated by his anxiety to secure the services of a pretty girl like Regine for his enterprise. Regine has quite other hopes and aspirations. Pastor Manders comes to make the final arrangements concerning the asylum. It is his first visit since Alving's death, for this spectre-haunted clergyman has a wholesome regard for what people might say. Mrs. Alving's greeting is cordial and frank. Admirable is the art and tact with which the author now proceeds to develop before us the long story that has gone before. Amid Manders's interjections and occasional homilies, Mrs. Alving relates to him the whole story of her married life. The good man's wonderment has no end; he is especially amazed at the startling conclusions to which her experiences have led her. Their views have drifted wide apart during these years of trial. These scenes of narrative and explanation are all managed with the highest refinement of the dramatist's art. The characters are drawn in clear, unmistakable lines, with that inward contrast which the different life-experiences have made. The heroic liberal cast of Mrs. Alving—with that high calmness without coldness, that resignation without bitterness, with resolute will, and the indescribable patient tenderness of a mother's love—is one of the finest creations the domestic drama has ever produced. And then the good, spectre-haunted pastor, child-like and sincere, but credulous, strict, shrinking from all things new upon which old custom has not set its sacred seal, ever eager to admonish the erring and interpret the will of God—this, too, is masterly character-drawing.

From the entrance of young Oswald, a premonitory gloom pervades the play. He is inert; one sees that he is sparing himself. He throws a shadow of dead hopes, that gradually darkens into final night. He has lived among young artists in Paris, and knows the beauty of that free life there, where those who love may love and ask no priest's consent. That brightness and happiness he must exchange for a sunless life in Norwegian mists. The good pastor is beside him self with amazement and indignation, and does vigorous battle for his spectres; he sermonizes *ex officio et ex ignorantia*. But Oswald cannot bear the excitement of animated conversation, and goes into the adjoining room, where Regine is preparing the evening meal. Mrs. Alving listens patiently to the pastor's homilies; she professes complete agreement with the views of her son; she will devote her life to his happiness, and forget all else. The "long comedy" is now at an end. A chair is thrown over in the next room, and in a sharp whisper is heard, "Oswald, are you mad?" Spectres! It is that couple from the years gone by that haunt the house still and