DR. EPHRAIM McDOWELL, "FATHER OF OVARIOTOMY": HIS LIFE AND HIS WORK.*

By August Schachner, M. D., Louisville, Ky.

During a visit to Germany in the summer of 1911, I talked with several Germans about Dr. Ephraim McDowell, and grew convinced that neither the man nor his work were as

 Paper read before The Johns Hopkins Hospital Historical Club, December 9, 1912. thoroughly understood as they deserve to be. This discovery became my *chief* reason for investigating Dr. McDowell's life, and for my endeavor to prepare a clear presentation of him and his work.

In the present paper lack of time compels me to present the

subject in a direct and concise form, foregoing in many instances details of circumstances and reasons for reaching and holding certain conclusions.

According to the family tradition, the ancestors of Dr. Ephraim McDowell emigrated from Scotland to North Ireland, during the Protectorate of Cromwell, about the middle of the seventeenth century.

Ephraim McDowell, the great-grandfather of Dr. Ephraim McDowell, fought in the English Revolution. At the age of 16 he was one of the Scotch-Irish Presbyterian defenders of Londonderry, during the troubles in 1688, and aided in resisting the besieging forces of James II in the memorable siege of 1689. His wife was Margaret Irvine, his first cousin. With his two sons, John and James, and his daughters Mary and Margaret, he emigrated to America, landing in Pennsylvania. It is believed that his wife died in Ireland. The date of his arrival in Pennsylvania, where he remained several years, is unknown, possibly, as thought by some, September 4, 1729. In Pennsylvania his son John, who was the grandfather of Dr. Ephraim McDowell, married the thrice-wedded Magdalena Wood, and it was here that Samuel, the father of Dr. Ephraim McDowell, was born, on October 29, 1735. In 1737 Ephraim McDowell, his son John, his son-in-law, John Greenlee, with his wife Mary McDowell Greenlee, moved by way of the lower Shenandoah Valley to what is now Rockbridge County, Virginia, near the present town of Lexington. They were the first three settlers in that region.

The great-grandfather of Dr. Ephraim McDowell died at the age of about 100. He lies buried in Rockbridge County, Virginia.

Capt. John McDowell, the father of Samuel McDowell, and the grandfather of Dr. Ephraim McDowell, fell in a battle with the Indians on Christmas day, 1743. He left three children, Samuel, James and Sarah. Samuel, the oldest, born in Pennsylvania, October 29, 1735, was the father of Dr. Ephraim McDowell. Two years later John McDowell moved with his family to Virginia. Samuel, as he grew up, received a good education for those times, one of his instructors being his relative, the distinguished Dr. Archibald Alexander. On the 17th day of January, 1754, in Rockbridge County, at the age of 18, he was married to Miss Mary McClung, daughter of John McClung and Elizabeth Alexander. Miss McClung, of Scotch parentage, was born in Ireland on October 28, 1735. Samuel McDowell and his wife Mary had 11 children born to them. When twenty years old he fought in the French and Indian War. He served under General Washington, and was present at the battle of Braddock's defeat. In 1774 he served as captain in Dunmore's War, and in the battle of Point Pleasant was an aide-de-camp to General Isaac Shelby, who afterwards became the first governor of Kentucky, and whose daughter later became the wife of Dr. Ephraim McDowell. Samuel was a colonel in the war of the Revolution, and with his regiment served under General Green at the battle of Guilford's Court House, and throughout Green's campaign against Cornwallis.

Preceding the Revolution, Samuel McDowell and Thomas Lewis represented Augusta County in the Convention of 1775 at Richmond, and protested against government by any ministry or parliament in which the people were not represented. They were delegated to address to George Washington, Patrick Henry, Benjamin Harrison, and other delegates from Virginia in the Continental Congress, a letter of thanks and approval of their course. In 1776 Samuel McDowell was a member of the Convention held at Williamsburg, Virginia, which instructed the delegates to the Continental Congress to declare the colonies free and independent.

He was appointed in 1782 by the Virginia legislature one of the commissioners to settle land claims in what was then a portion of Virginia, but afterwards became the state of Kentucky.

In 1783 he came as a surveyor with his family over the Wilderness Road, and took up his residence in Fayette County. In that year, at Harrodsburg, he, with two others, presided over the first court held in Kentucky. The next year he moved to Mercer County, in which Danville was situated. According to Collins, he was made president of all the early Kentucky conventions, nine in number, including the one that framed the Constitution of Kentucky. During his presidency in 1792, Kentucky was admitted to the Union.

In religion he was a member of the Presbyterian Church. He remained upon the bench until a few years before his death, and was known as Judge McDowell, to distinguish him from one of his sons, Samuel. After a long and useful life, during which he enjoyed the fullest measure of confidence and esteem throughout his state, he passed away, September 25, 1817, at the age of 82, at the residence of his son, Colonel Joseph McDowell, near Danville, Kentucky.

Dr. Ephraim McDowell was born November 11, 1771, in that portion of Augusta County, Virginia, that is now called Rockbridge County. He is generally referred to as of Scotch-Irish stock. Correctly speaking, he was born in the colony of Virginia, under the British flag, of Scotch parentage. Both sides of his house were Scotch. They emigrated to America by the way of, and after some residence in, Ireland. The Scotch-Irish reference in this, as in most other instances where it is employed, is misleading, and is based upon the residence in Ireland and not upon any mixture of Scotch and Irish blood. He was the ninth of eleven children, and the sixth son. When about 13 years of age, he moved from the place of his birth to the place of his future activity, Danville, Kentucky.

He received the best education that those early times and frontier conditions afforded, which, however, according to our present standard, might rightly be termed limited. Worley and James, who conducted a school at Georgetown, and later at Bardstown, were among his teachers. He also attended the Academy at Lexington, Virginia. His subsequent reputation as an athlete, while at the University of Edinburgh where he was successfully pitted by his class against an Irish professional in a foot race, lends color to the view that at school he was fonder of outdoor sports than indoor studies.

Later he studied medicine for two or three years with Dr.

Alexander Humphreys, of Staunton, Virginia, who was a graduate of the University of Edinburgh.

In 1793 and 1794, McDowell attended the University of Edinburgh. It is believed that while there he gave especial attention to anatomy and surgery. Apparently dissatisfied with the surgical lectures, or at least feeling a desire for more instruction in this line of work, he became a member of the private class of John Bell, who, in addition to being an able surgeon, was a clear and forceful teacher, and a man of charming personality. It is generally thought that from Bell's influence, together with his lucid lectures upon the diseases of the ovary and his statement that some day surgery would relieve those suffering from ovarian troubles, the seed sprung from which developed the operation of ovariotomy.

Indications justify the belief that he left Edinburgh without his degree, although some of his relatives claim that he secured it. He returned from there in 1795 and began the practice of medicine at his home in Danville where he remained until his death

In 1817 the Medical Society of Philadelphia, the most distinguished of that time in this country, publicly recognized McDowell's ability, and in 1825 he received an honorary degree from the University of Maryland. This appears to be the first degree that was ever conferred upon him. Lunsford P. Yandell, Sr., suggests that this came through John P. Davidge, one of the founders of the University of Maryland, for Davidge was a friend and contemporary of McDowell at the University of Edinburgh.

Situated as he was, in a frontier city, favorably known and extensively connected, and with what was at that time unusual, a training in one of the best, if not the very best of the foreign universities, it is needless to say that an extensive practice covering what was then the entire southwest rapidly sprang up.

Hardly any anecdotes of his childhood or personal recollections of his manhood are known. He is described as erect and tall, nearly 6 feet, and inclined to corpulency, with a florid complexion and lustrous black eyes. He was a ready wit and fine conversationalist. In an unpretentious way, he was fond of music; he would sing English and Scotch songs with comic effect, accompanying himself with his violin upon which he performed with ordinary ability. He mingled freely with all classes of his townspeople, displaying the modesty and simplicity of a great man. He is said not to have used tobacco in any form, and to have been temperate in his habits. He was neat in person and invariably dressed in black, wearing a silk stock and ruffled linen.

He inclined to surgery; the medical side of his work he transferred as much as possible to his partner, and in his instructions to his pupils, he urged them not to rely too much upon drugs. His foreign training and Scotch origin explain his preference for Cullen and Sydenham in medicine, and Burns and Scott in literature. He was no writer; his only contributions to medical literature are said to be two reports in the Eelectic Repertory and Analytical Review upon his ovarian operations.

At the age of 31, he married Miss Sarah Hart Shelby, who

was then in her eighteenth year. She was the daughter of Governor Isaac Shelby, Kentucky's first governor. Six children were born to them, two sons and four daughters. Three of the children survived him. Through the influence of his wife, he became a member of the Episcopal Church. Several years before his death, he retired to his country home called Cambuskenneth, located about two miles from Danville, but did not give up the practice of medicine.

His death occurred while still in the full vigor of life. The illness began suddenly, while he sat in his garden eating strawberries. The chief symptom was great pain, followed by nausea and later by fever, which is said to have lasted fourteen days, when he died (possibly of an acute appendicitis). In his death, which, according to some, occurred on the evening of June 20, and according to others, June 25, 1830, in his 59th year, he preceded his wife ten years. They were both buried in the family burying ground, near Danville, at Travellers Rest, the home of his father-in-law. In 1872, Dr. John D. Jackson, of Danville, seconded by Dr. Lewis A. Sayre, started a movement which was completed through the Kentucky State Medical Society in 1879, and had, as its results, the removal of the remains of Dr. Ephraim McDowell and his wife, to Danville and the erection of a shaft over their graves.

On December 13, 1809, fourteen years after he began the practice of medicine, he was called to see a Mrs. Crawford, who lived in Green County, some 60 miles from Danville. She was thought to be pregnant and had exceeded her time. McDowell, after an examination, explained to her the nature of her condition and his proposed plan of relief.

Exactly what passed between McDowell and his memorable patient is mere speculation and will never be known. The operation at the time of its performance, received, considering its importance, comparatively little attention even from McDowell himself. An account of it was not published until about seven years later and then only after considerable urging on the part of his friends.

This much we know, that Mrs. Crawford yielded to Mc-Dowell's judgment and made the journey to Danville on horseback, it is said resting the tumor upon the horn of the saddle.

There is a tradition that McDowell's life was threatened by an angry mob for his rashness in performing the operation. This will never be satisfactorily proven or disproven. It seems, on reflection, reasonable to assume that this story has with time become exaggerated. McDowell was generally underrated by many and specially maligned by his enemies. He was held, however, by the greater part of his people to be easily the foremost man in medicine, and also considered a leading citizen in his community. Mrs. Crawford's evident entire willingness to undergo the operation is emphasized especially by the distance and difficulties under which she made the journey. No doubt the proposed operation was known to every one beforehand and in all likelihood, as is customary in small places, even to-day, where news is at a premium and where the tedium of the lives of the people is broken by their interest in their neighbors' affairs, there were comments of all kinds. In fact it is said that his nephew, Dr. James McDowell, whom he brought

up and who was his partner, made several attempts to dissuade him from operating and agreed only at the last moment to be present, and assist for fear of the damage he would sustain in his practice in the event of failure of the operation.* There does not appear, however, enough ground upon which to base the story of an organized effort to do him bodily harm in the event of failure.

After the lapse of seven years following the first ovariotomy and at the repeated urgings of another nephew, William, and others, he was prevailed upon to prepare a report of the first three cases. This was forwarded in 1816 to his old teacher, John Bell, to whom it is believed he was indebted for the idea, but fell into the hands of John Lizars, owing to Bell's absence in Italy in quest of health.

Another copy was sent in the autumn of 1816 to Philip Syng Physic of Philadelphia, with a request that it be published if found worthy and this, like the first, received no attention.

His nephew, William, who was the bearer of the report to Physic then turned to Dr. Thomas C. James, who has passed into history as the modest, amiable and benevolent professor of midwifery in the University of Pennsylvania, and one of the editors of the Eclectic Repertory.

Professor James, who placed confidence in McDowell and his nephew, took the time to study and then communicate the report to his pupils, amid their applause, and later publish it in the Eclectic Repertory and Analytical Review (Vol. VII, 1817). The original report, which, we feel, in view of its importance and interest should be reproduced in full as far at least as it deals with the first case, is as follows:

In December, 1809, I was called to see a Mrs. Crawford, who had for several months thought herself pregnant. She was affected with pains similar to labor pains, from which she could find no relief. So strong was the presumption of her being in the last stage of pregnancy that two physicians, who were consulted on her case, requested my aid in delivering her. The abdomen was considerably enlarged and had the appearance of pregnancy, though the inclination of the tumor was to one side, admitting of an easy removal to the other. Upon examination, per vaginam, I found nothing in the uterus, which induced the conclusion that it must be an enlarged ovarium. Having never seen so large a substance extracted, nor heard of an attempt or success attending any operation such as this required, I gave to the unhappy woman information of her dangerous situation. She appeared willing to undergo an experiment, which I promised to perform if she would come to Danville (the town where I live), a distance of sixty miles from her place of residence. This appeared almost impracticable by any, even the most favorable conveyance, though she performed the journey in a few days on horseback. With the assistance of my nephew and colleague, James McDowell, M. D., I commenced the operation, which was concluded as follows: Having placed her on a table of the ordinary height, on her back, and removed all her dressing which might in any way impede the operation. I made an incision about three inches from the musculus rectus abdominis, on the left side, continuing the same nine inches in length, parallel with the fibers of the above-named muscle, extending into the cavity of the abdomen, the parietes of which were a good deal contused, which we ascribed to the resting of the tumor on the horn of the saddle during her journey. The

tumor then appeared full in view, but was so large that we could not take it away entire. We put a strong ligature around the Fallopian tube near the uterus, and then cut open the tumor, which was the ovarium and fimbrious part of the Fallopian tube very much enlarged. We took out fifteen pounds of a dirty, gelatinouslooking substance, after which we cut through the Fallopian tube and extracted the sack, which weighed seven and one-half pounds. As soon as the external opening was made the intestines rushed out upon the table, and so completely was the abdomen filled by the tumor that they could not be replaced during the operation. which was terminated in about twenty-five minutes. We then turned her upon her left side, so as to permit the blood to escape, after which we closed the external opening with the interrupted suture, leaving out, at the lower end of the incision, the ligature which surrounded the Fallopian tube. Between every two stitches we put a strip of adhesive plaster, which, by keeping the parts in contact, hastened the healing of the incision. We then applied the usual dressings, put her to bed, and prescribed a strict observance of the antiphlogistic regimen. In five days I visited her, and much to my astonishment found her engaged in making up her bed. I gave her particular caution for the future, and in twenty-five days she returned home as she came, in good health, which she continues to enjoy.

This report was met with indifference and incredulity on the one hand and ridicule on the other.

The original paper sent to Bell, which fell into the hands of Lizars, was published seven years after McDowell's report in connection with one of Lizars' failures, and it was this that awakened Europe and, through reaction, aroused America more than McDowell's own publication.

The second operation in 1813, four years after the first, was upon a negress. In this the ovary was exposed and incised, allowing a gelatinous substance and blood to the amount of about one liter to escape, but the ovary was not removed owing to the firmness of its adhesion to the vesica urinaria and fundus uteri. She recovered from the operation, had no more pain and was able to pursue her occupation. The third operation, and the last to be included in his first report, was performed May, 1816, or three years after the second. Like the second, it was upon a negress and in this case he removed a scirrhous ovarium weighing six pounds.

His second communication, also published in the Eclectic Repertory, embraced descriptions of his fourth and fifth patients, who, like the others, except the first, were negresses. The fourth was operated upon April, 1817. It was a scirrhous ovarium weighing five pounds. Although she made a recovery from the operation and it was the smallest of all, it gave him the most trouble at the time and was not as satisfactory in the end results as the others.

The fifth, who was operated upon May 11, 1819, had been tapped four times before the operation. Many adhesions were encountered. Sixteen liters of gelatinous fluid were discharged from the tumor and abdomen. She died of peritonitis on the third day. The tumor was a dermoid cyst.

These were the only cases that McDowell reported; the exact number of these operations he performed will never be known. Samuel D. Gross collected three additional cases, all white, making eight in all, four in white and four in negro women. Five operations were complete and three were incomplete. Of

In McDowell's own account of the operation he says, that his nephew, James McDowell, did assist him.

the five complete operations, there were two in white and three in negro women, with one death among the latter, the mortality of the completed operations thus being 20 per cent. William, his nephew and also at one time a partner, is the authority for the statement that his uncle performed the operation in all 13 ` times

McDowell's surgery was not confined to that of the ovary. He performed lithotomy 32 times without a death. One of his lithotomy cases, James K. Polk, later became president of the United States. He operated for hernia and performed all the operations known in his time.

After a careful search the writer has been unable to find sufficient evidence to justify the belief that McDowell ever performed Cæsarean section or that he ever returned to Europe after leaving the University of Edinburgh. By preference he operated on Sunday mornings.

Considering the importance to humanity of McDowell's work, he has been overlooked to an unpardonable degree, but what must we say when we come to that brave woman, Jane Todd Crawford, who successfully balanced her heroism against McDowell's genius and thereby joined with McDowell in emancipating countless millions of human beings of all nations and creeds in time to come, from a terrible condition from which a miserable death alone supplied the avenue of escape.

Peaslee in 1870 estimated that McDowell had added 30,000 years to the active life of womanhood in the 30 years prior to 1870 in the United States and Great Britain alone through the operation of ovariotomy. This in itself, would be quite enough to entitle Ephraim McDowell and Jane Todd Crawford to the lasting gratitude of humanity.

McDowell's operations, by demonstrating to the world the feasibility and safety of entering the abdominal cavity, became the cornerstone of abdominal surgery. To estimate even approximately at present the thousands of human beings that are annually saved and the countless hundreds of thousands of years that are annually added to human life through abdominal operations, would be a task well nigh superhuman. Abdominal surgery has reached such proportions that ovariotomy is but one of its smaller divisions, and when we think that even this bids fair to be extended and still further improved, we begin to realize the priceless gift and the enduring obligation that humanity owes to Ephraim McDowell and Jane Todd Crawford.

For more than a century the heroine of this story has passed from one writer to the next as Mrs. Crawford, of Green County. No one seems to have thought it necessary to establish her identity that she might take her proper place in history.

After an investigation fraught with many difficulties, extending over many months, involving an enormous correspondence and assuming at times a discouraging outlook, I feel justified from the records in my possession, in presenting the following history of her:

Jane Todd Crawford, who richly deserves to share with McDowell the honor and glory of an international memorial for her heroism, was born in Rockbridge County, Virginia. She was the sister of Samuel Todd, of Frankfort, Kentucky. Thomas Crawford and his wife, Jane Todd Crawford, with Thomas Mitchell, who in 1768 in Virginia had married Rachael, the sister of Thomas Crawford, moved to the waters of Caney Fork, nine miles southeast of Greensburg, arriving there November 5, 1805.

It must be remembered that Kentucky was still largely a wilderness and, owing to Indians and other dangers, emigrants moved about during the early periods not singly, but in groups. This was four years before Mrs. Crawford was operated upon. There is a record to show that Thomas Crawford and his wife, Jane, transferred to John Motley, 427 acres of land for \$1900, "cash in hand," December 8, 1810, one year after the operation. The land was afterwards known as Motley's Glen.

Five children were born to them, Hon. Thomas Howell, Crawford, who was mayor of the city of Louisville in 1859 and 1860, Rev. James Crawford, a Presbyterian minister, Samuel Crawford, Alice Craig Crawford, who married William Paul Brown, and a daughter who died in infancy. Dr. Samuel D. Gross has proven conclusively that Mrs. Crawford did not give birth to a child after the ovariotomy.

As the daguerrotype camera was not introduced into the United States until 1839, it is not reasonable to suppose that any photograph was ever taken of her and in all likelihood no portrait of her was ever painted. All efforts to procure what would seem a trustworthy description of Mrs. Crawford, and more details germane to the operation, have so far failed.

There is a tradition in the Mitchell family that McDowell made no charge for the operation, but that Mr. Crawford presented him with an honorarium so large that, considered in the light of that period and the contracting parties, it is out of reason to suppose the story credible, and is mentioned simply as one of the many errors and traditions that confronted us in our search.

The story of Jane Todd Crawford's subsequent movements, her death and the discovery of her grave which had been forgotten for about a century, is akin to a romance, but entirely too long for the present paper. Stripped of its details, a long search and an extensive correspondence brought the writer in touch with Mr. J. K. Mitchell, a lawyer of Osborne, Kansas, and a grandnephew by marriage of the heroine. Mitchell's vigorous efforts resulted in enlisting the aid of the Rev. J. H. McArthur, a Presbyterian minister of Sullivan, Indiana, who discovered the grave in the Johnson Cemetery ten miles northwest of Sullivan.

Since the family bible, in which the family records were kept, was burned during the fire that destroyed the house of Rev. James Crawford, it is practically impossible to determine her exact age. The date of her death has been given variously as 1841, 1842 and 1843. The inscription on her tombstone reads:

JANE CRAWFORD

Died

Mar. 30, 1842

Aged 78 years

Blessed are the dead who die in the Lord.

According to this she survived the operation 33 years.

In the spring of 1912 the writer started a movement to preserve and memorialize the house in which McDowell lived and performed the ovariotomy.

The importance of rescuing this historic landmark situated in what is now the questionable quarter of Danville, and used as a negro boarding house, is too plain to require more than mere mention.

With this end in view, the writer addressed the Kentucky State Federation of Women's Clubs at their annual meeting at Mammoth Cave, May 29, 1912, and urged them in view of being the first beneficiaries of McDowell's work, to unite in saving this structure. He said in part:

If benefits to the human race are to be the standard by which we measure the usefulness and importance of a life, I am prepared to defend the statement that the importance of Dr. Ephraim McDowell's life overshadows that of either Washington or Lincoln, and that the house in Danville in which the ovariotomy was performed, should be more sacred not only to an American, but to the entire human race, than any other structure upon the whole American continent.

It has been fashionable for centuries to ignore the real benefactors of the human race, and to rush madly forward with monuments and memorials to statesmen and especially military leaders. This is a remnant of feudalism that is still in us. It is a legacy from the time when might was right even in smaller matters, as it still is to a degree in international matters, when we, more fondly than we do to-day, worshipped power and pomp at the expense of equity and reason. I do not wish to be understood as detracting from the statesman and the warrior, but I do wish to point out the benefits of the work of such a man as Ephraim McDowell as compared with the very greatest statesmen and military leaders. The moulding of a nation, the advancement of a particular people by a wise statesman, and the leadership of a successful army in a just cause, are matters that do not admit of any division of opinion. Since, however, many statesmen are forcible but not wise, and many military leaders brave and daring in an unjust cause, it is obvious that both harm and good are equally dispensed by these two popular idols. And even when the statesman is wise, and the military leader is fighting a just cause, they affect but one people and that they affect perhaps for one period, quite enough to justify their activities I will admit, as we all must.

Compare, however, this with Ephraim McDowell, whose life has affected all people. When he, for the first time on December 13, 1809, performed, before the time of anæsthetics, and without trained assistants and the usual conveniences that to-day are considered as almost indispensable, the operation of ovariotomy, he conferred upon womanhood in particular, and mankind in general, a benefit as great as any that has ever been conferred upon the human race in this or any other country and in this or any other age.

I am sure that no one will for a moment, dispute the magnitude of this gift to humanity, but I am not sure as to how many of us can really measure the greatness of this deed.

Since women were the first beneficiaries of his work, it seems entirely natural for the women of Kentucky to rescue the house in which this memorable deed was performed and which has added to the honor and glory of Kentucky more than all her other achievements combined, great as they are.

When this is accomplished, there should be an international movement to erect a joint monument befitting the services to the memory of Dr. Ephraim McDowell of Danville, and Jane Todd Crawford.

I am here to make an appeal to you to unite in rescuing from

oblivion, what should be the most cherished and sacred structure in the entire Republic.

Even though the house should by some misfortune be destroyed, the spot should be memorialized. One feels like saying that it will be akin to savagery to ignore the spot where this deed immeasurable for its good, was consummated.

The appeal was favorably acted upon by the Kentucky State Federation of Women's Clubs. With commendable promptness a memorial committee was created. The writer made a number of efforts, some before and many during the half year following this action by the Federation, to persuade the owner of the building to place a valuation upon the same.

Although a man in affluent circumstances, he has resisted all entreaties towards placing a price upon the structure. As to whether John Gill Weisiger, the present owner, will ever be willing to sell this structure, that this shrine that spells more than volumes can describe, can be memorialized, that is a question that time alone can answer.

NOTE.—Since reading this paper before the Johns Hopkins Hospital Historical Club, a letter has been received from Mr. John Gill Weisiger offering to sell the house for \$10,000, the offer to remain in effect for five days. The price has been considered as being considerably higher than expected, but we hope that the Kentucky Federation of Women's Clubs who have created a McDowell Memorial Committee wil be able to secure this house, and keep it as a memorial to Dr. Ephraim McDowell and Mrs. Crawford.



Fig. 1.—The McDowell Coat of Arms.

BIBLIOGRAPHY.

Gross, Samuel D.: Report on Surgery, Trans. Ky. State Med. Soc., Session 1852.

Gross, Samuel D.: Memorial Oration in Honor of Ephraim McDowell, John P. Morton, Louisville, Ky., 1879; and Medical Record, New York, 1879.

Gross, Samuel D.: Amer. Med. Biog., Lives of Eminent Physicians and Surgeons, Lindsey and Blakeston, Phila., 1861.

Yandell, Lunsford Pitts, Sr.: Med. Literature of Ky., Trans. Ky. State Med. Soc., 1874.

Yandell, David Wendell: Pioneer Surgery in Ky., Presidential Address, Trans. Am. Surg. Ass., 1890.



Fig. 2.—Dr. Ephraim McDowell. From a portrait in possession of his grand-daughter, Mrs. William M. Irvine, Richmond, Ky.



his grandFig. 7.—Dr. McDowell's present burial place in Danville, to which his remains were removed in 1879 through the efforts of the Kentucky State Medical history-of-obgesscriation.



Fto. 3.—The house in which Dr. McDowell lived and performed the first ovariotomy, showing the present character of the street.

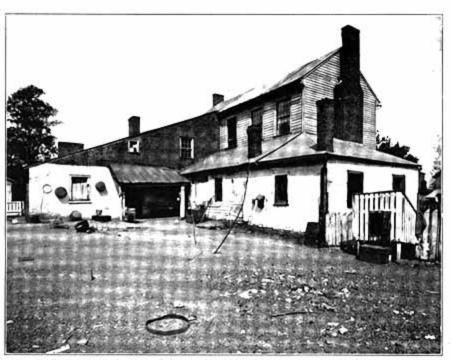


Fig. 4.—Premises and rear of house in which he performed the first ovariotomy, showing the slovenly condition.



Fig. 5.—Dr. McDowell's first burial place in the family burying ground at Travellers Rest, the homestead of his father-in-law, Gov. Isaac Shelby. The grave, as indicated by the arrow, was just beyond the slab seen in the center of the picture.



Fig. 6.—The remaining fragments of the slab that covered Dr. McDowell's first grave. By permission of Isaac Tevis, Esq., Shelby City, Ky. (The inscription was brought out by brushing it with whiting.)

Jackson, John D.: Biog. Richmond and Louisville Medical Journal, Louisville, 1873.

McMurtry, L. S.: Trans. Am. Med. Ass., Philadelphia, 1878.

McMurtry, L. S.: Trans. South. Surg. and Gyn. Ass., 1893; also Med. News Phila., 1894.

Lowder, W. L.: Ephraim McDowell, Med. and Surg. Monitor, Indianapolis, 1901.

Lowder, W. L.: The Passing of the Historic McDowell Building at Danville, Ky., Physician and Surgeon, Detroit and Ann Arbor, 1902.

Cincinnati Lancet and Clinic, Dedication of Monument to Ephraim McDowell, 1879.

Letcher, J. H.: Memoir of Ephraim McDowell, Trans. McDowell Med. Soc., Evansville, Ind., 1874.

Chesney, J. P.: Interesting Incidents in the Private Life of Ephraim McDowell, Cincinnati Med. Repertory, 1870.

Practitioner, London, 1897, Heroes of Medicine.

Columbus Med. Jour., 1902, p. 587, Blog. Sketch.

Cyc. of Amer. Med. Blog., Vol. II, Howard A. Kelly, M. D., W. B. Saunders Co., Phila., 1912.

Goffe, J. Riddell: Ephraim McDowell, The Father of Ovariotomy, Surg. Gyne. and Obstetrics, May, 1909; also Revue de Gynécologie et de Chirurgie Abdominale, S. Pozzi, Paris, Masson et Cie, 1909.

Swartsel, Samuel Carey: Ephraim McDowell, Eclectic Med. Gleaner, March, 1910.

Dunlap, Fayette: Pioneer Days in the Blue Grass, Eclectic Med. Gleaner, March, 1910.

Towsley, Lillian G.: Progress of Abdominal Section from 1771 to 1899, Cleveland Med. Gazette, September, 1899.

Barkley, A. H.: Some Facts not Generally Known regarding Ephraim McDowell, Surg. Gynec. and Obstetrics, October, 1912.

McDowell, Joseph N.: A report on the Improvements in the art and science of surgery in the last fifty years, read before the American Med. Assn. at New Haven, Conn., June, 1860. McDowell, Ephraim, of Danville, Kentucky: Three Cases of Extirpation of Diseased Ovaria, The Eclectic Repertory and Analytical Review, Medical and Philosophical, edited by a Society of Physicians, Vol. VII, 1817.

McDowell, Ephraim, of Danville, Kentucky: Observations on Diseased Ovaria, The Eclectic Repertory and Analytical Review, Vol. IX, 1819.

Bradford, Joshua Taylor: Report on Ovariotomy, read before Ky. State Medical Association, Louisville, April, 1857, Semi-Monthly Medical News, Louisville, August, 1859.

Van De Warker, Ely, Syracuse, N. Y.: Mr. Knapp's Painting of the First Ovariotomy, The Obstetric Gazette, edited by E. B. Stevens, A. M., M. D., Cincinnati, Ohio, Vol. I, 1879.

Fehr, M.: Die Ovariotomie Geschichtlich und Kritish Bearbeitet, Heldelberg, 1864.

Speed, Thomas: The Wilderness Road, A description of the routes of travel by which the pioneers and early settlers first came to Kentucky, prepared for the Filson Club, John P. Morton, Louisville, Ky., 1886.

Speed, Thomas: The Political Club, Danville, Ky., 1786-1790, being an account of an early Kentucky Debating Society from the original papers recently found, prepared for the Filson Club, John P. Morton, Louisville, Ky., 1894.

Collins, Lewis: History of Kentucky, Vol. II.

Dinsmore, John Walker: The Scotch-Irish in America, The Winona Publishing Co., Chicago, Ill.

Green, Thomas Marshall: Historic Families of Kentucky, Robert Clarke and Co., Cincinnati, Ohio, 1889.

Fiske, John: Old Virginia and her Neighbors, 2 vols., Houghton, Mifflin and Co., Riverside Press, Cambridge, Mass.

Thompson, W. N.: Grave of Jane Crawford, the first subject of Ovariotomy, J. Am. M. Ass., 1913, LX, 67.

Thompson, W. N.: Correction, The Grave of Jane Crawford, J. Am. M. Ass., 1913, LX, 228.