

THE JOURNAL OF Spelean History

OFFICIAL PUBLICATION OF THE AMERICAN SPELEAN HISTORY ASSOCIATION

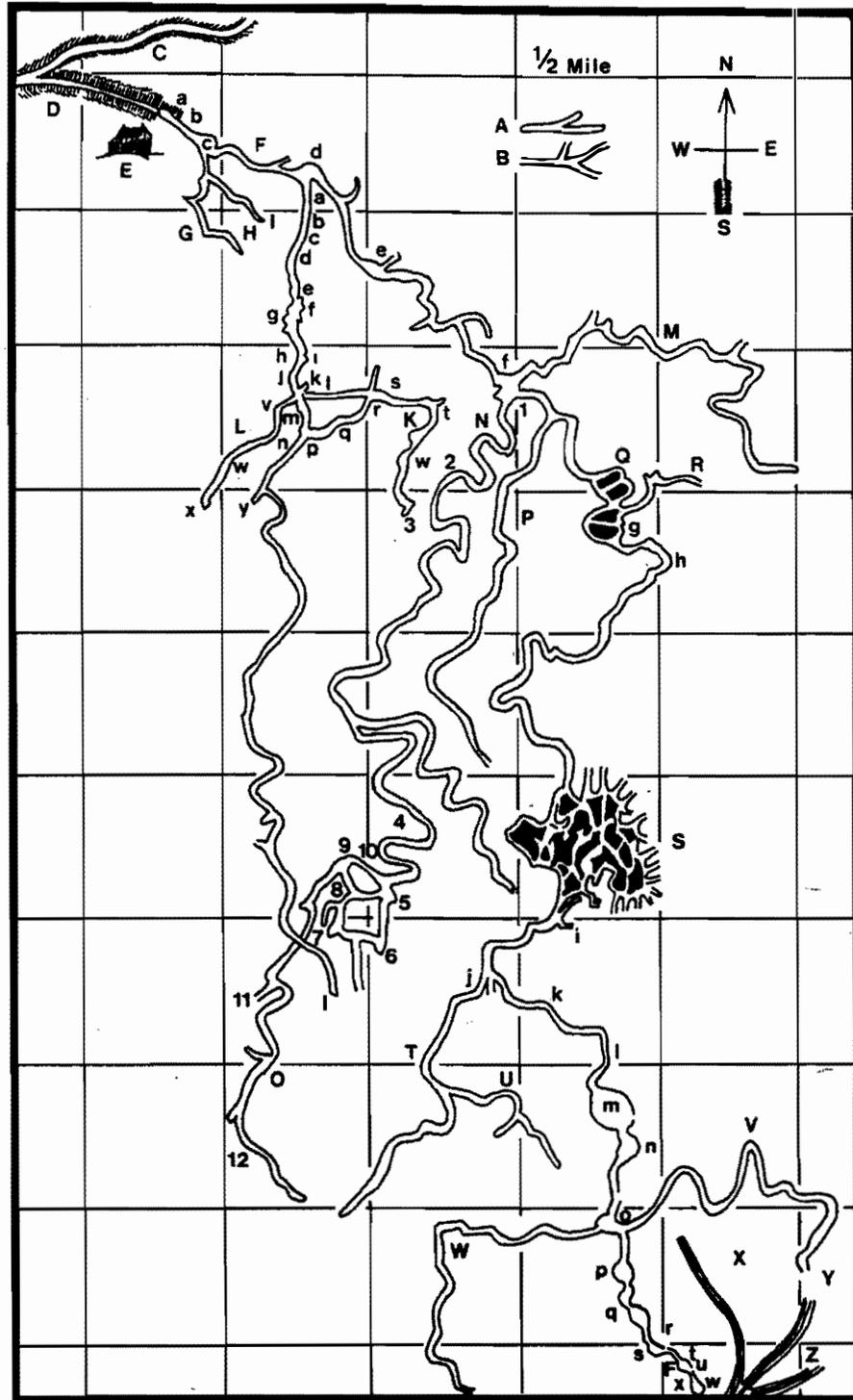


Chart of the Mammoth Caves

THE JOURNAL OF SPELEAN HISTORY

THE ASSOCIATION

The American Spelean History Association is chartered as a non-profit corporation for the study, dissemination and interpretation of spelean history and related purposes. All persons of high ethical and moral character who are interested in these goals are cordially invited to become members. Annual membership is \$5.00; family membership \$6.00. Library subscriptions are \$4.00.

THE COVER

This issue depicts one of the earlier maps of Mammoth Cave -- one originally drawn by John S. Wood to accompany his 3-part article for the short-lived The American Magazine and Repository of Useful Literature that he published with his son. In order to improve legibility it has been carefully traced by Pat Quinlan from a xerox copy owned by James Quinlan. The article, "Mammoth Caves of Kentucky", was published in the following issues: 1(3):86-90; 1(5):130-133; and 1(6):184-190, September, November and December of 1841. The legend for this map is reprinted on page 62.

THE JOURNAL

The Association publishes The Journal of Spelean History on a quarterly basis. Pertinent articles or reprints are welcomed. As a photo-offset process is used, the editor should be contacted in advance concerning the current type of manuscript preparation desired. Submission of rough drafts for preliminary editing is encouraged. Illustrations require special handling and arrangements must be made with the editor in advance.

BACK ISSUES

Some back issues are available of Volumes 1-6 from Dr. W.R. Halliday, 1117 36th Avenue E., Seattle, Washington 98102. All issues of Volumes 1-6 are available on microfiche from Kraus Reprint Company, Rt. 100, Millwood, New York 10546. Volume 7 is available from the present editor.

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Official quarterly publication of the American Spelean History Association

<i>President</i>	<i>Dr. John F. Bridge</i> 45 Short Street Worthington, Ohio 43085
<i>Secretary-Treasurer</i>	<i>Peter M. Hauer</i> Rt. 1, Box 247 Hillsboro, W. Va. 24946
<i>Editor</i>	<i>Patricia H. Quinlan</i> Box 8 Mammoth Cave, Ky. 42259
<i>Associate Editor</i>	<i>James F. Quinlan</i> Box 8 Mammoth Cave, Ky. 42259

EDITOR'S COLUMN

In order to upgrade the standards of scholarship of this journal it has become and will be my policy to have manuscripts refereed by an author's peers. The author and the reader benefits from such review. Authors are encouraged to submit the names of potential referees.

It is essential that I have people I can call on for help. I am not a historian, therefore I must call on others knowledgable in spelean history to advise me in divers matters. I have asked Jim Quinlan to be an associate editor of this journal. He has been and will continue to be an invaluable help to me. Indeed, without his help, I could never turn out this journal as I have.

The Great Onyx Cave War: Edwards v. Lee

Kay F. Reinartz

Edmonson County, Kentucky wherein lies Mammoth Cave as well as a multitude of other commercially exhibited caves has been the scene of some fierce wars during the past hundred years -- cave wars. While these have generally been bloodless wars, during the 1920's and 1930's the competition for the tourist trade grew so intense that rival solicitors battled on the roadways and in the woods with fists, stones and guns. There were more than a few "mysterious incidents." Two men are reported to have been killed in the bitter cave feuds and Floyd Collins died in an effort to find yet a grander cave to show to the tourists. This paper, however, is not concerned with these fascinating and colorful aspects of the Kentucky cave wars, it is an account of one of several feuds that went to court.

In April 1928, F. P. Lee filed suit against his adjoining landowner L. P. Edwards for damages incurred in connection with Edwards' commercial development of a cave, portions of which Lee claimed lay under his property. Thus began the Great Onyx Cave legal war.

Around 1916 L. P. Edwards began to develop a cave discovered by Edmund Turner around 1914, on the property he owned with his wife Sally Edwards. The cave, located about three miles from Mammoth Cave, was decorated with onyx formations which inspired Edwards to name the cave "Great Onyx Cave." With the invaluable assistance of Turner, Edwards soon set to work to develop the commercial value of the cave.¹ Circulars were printed and distributed, sign boards were plastered along the roads leading to the Mammoth Cave area, and local people were encouraged to mention the cave and its attractions at every opportunity. Edwards improved and widened the paths in the cave, thereby increasing the comfort and safety of tourists. From year to year Great Onyx Cave's reputation grew. By the mid-1920's it had become a well-known and well-patronized cave. Edwards and his wife built a hotel-restaurant near the cave entrance and provided speleothem souvenirs in abundance in their gift shop. The volume of tourists was soon great enough for the Edwards' to realize a tidy profit beyond operation costs. By 1926 a jury, ruling in connection with action preparatory to creating a National Park in the area, had set the value of the cave at \$396,000.

Lee, next door, a man not noted for his prosperity, was very much aware of the successful business Edwards had made out of his cave, and developed a keen interest in gaining what he considered his fair share of the profits from the venture. He was convinced that a portion of Edwards' Great Onyx Cave lay under Lee land. Therefore his 1928 suit included a claim for damages, an accounting of the profits resulting from the operation of the cave, and an injunction prohibiting Edwards and his associates from further trespassing upon or showing any part of the cave under Lee's land. (Edwards v. Lee, 230 Ky. 375, 19 S.W. (2d) 992.) The first move Lee made was to secure a court order issued on June 21, 1929, for a survey of the cave in order to determine what portion of the cave was on Lee's land. Accordingly, E. L. Rogers and John L. Bush, county surveyors of Barren and Warren counties, respectively, were appointed to survey all of Great Onyx Cave and report their findings to the court, including a written statement and a plat. Apparently Lee was experiencing considerable financial difficulties at this time and the survey was not executed immediately because Lee could not raise the money. This delay gave Edwards time to appeal a court survey order on September 29, 1929, but the appeal was dismissed because the court order was not from a final judgement. (Edwards v. Lee, 230 Ky. 375, 19 S.W. 2d 992.)

In December 1929, Edwards sought a writ of prohibition against Circuit Judge N. P. Sims to block carrying out of the survey order. (Edwards v. Sims, 232 Ky. 791, 24 S.W. (2d) 619, 620.) In this case the ancient *ad coelum* maxim:

Cuius est solum, ejus est usque ad coelum et ad inferos -- "to whomsoever the soil belongs, he owns also to the sky and to the depths" was drawn upon and applied. Moreover, an analogy was drawn between trespassing beneath another's land through mining activities and passing under it via a cave. There was much testifying on both sides concerning a wide variety of points including speculation as to how much of Great Onyx Cave, if any, lay under Lee's land, the length of Lee's portion of the cave that was regularly exhibited, the main attractions located in Lee's portion, and the net earnings of the cave for the years involved. The most important legal issue debated was if Edwards and his employees were aware that they were trespassing on Lee's land.

The dissenting opinion of Justice J. Logan is one of the more interesting aspects of this case on two counts: 1) his challenge of the traditional *ad coelum* axiom, and 2) his apparent deep appreciation of the beauties and mysteries of the cave and the work of cave explorers. While happily conceding that the rule which states that he who owns the surface of the land is the owner of everything that may be taken from the soil and used for his profit or happiness, Logan pointed out that "no man can bring up from the depths of the earth the Stygian darkness and make it serve his purposes" In the text Logan is emphatic that "A cave or cavern should belong absolutely to him who owns its entrance, and this ownership should extend even to its utmost reaches if he has explored and connected these reaches with the entrance." Logan emphasized that the old axiom was never true in the past, but there were few occasions to test it. With the advent of air travel -- still in embryo stage in 1929 -- it had been established that ownership does not extend to the zenith after all. Thus, Logan concluded that if the land owner did not in fact own the atmosphere above him, he likewise did not own and control the open spaces below the surface. Applying this form of logic, Logan found Edwards completely within his rights as the discoverer, explorer, developer and exhibitor and conqueror of the cave. Logan followed this pronouncement with one of the most baroque eulogies to caves and caverns that I have had the pleasure to see in a legal record.

I here give you a sample of his praise:

Men fought their way through the eternal darkness, into the mysterious and abysmal depths of the bowels of a groaning world to discover the theretofore unseen splendors of unknown natural scenic wonders. They were conquerors of fear, although now and then one of them, as did Floyd Collins, paid with his life, for his hardihood in adventuring into the regions where Charon with his boat had never before seen any but the spirits of the departed. They let themselves down by flimsy ropes into pits that seemed bottomless; they clung to scanty handholds as they skirted the brinks of precipices while the flickering flare of their flaming flambeaux disclosed no bottom to the yawning gulf beneath them; they waded through rushing torrents, not knowing what awaited them on the farther side; they climbed slippery steeps to find other levels; they wounded their bodies on stalagmites and stalactites and other curious and weird formations; they found chambers, star-studded and filled with scintillating light reflected by a phantasmagoria revealing fancied phantoms, and tapestry woven by the toiling gods in the dominion of Erebus; hunger and thirst, danger and deprivation could not stop them. Through days, weeks, months, and years -- ever linking chamber with chamber, disclosing an underground land of enchantment, they continued their explorations; through the years they toiled connecting these wonders with the outside world through the entrance on the land of Edwards which he had discovered; through the years they toiled finding safe ways for those who might come to view what they had found and placed their seal upon. They knew nothing, and cared less, of who owned the surface above; they were in another world where no law forbade their footsteps. They created an underground kingdom where Gulliver's people may have lived or where Ayesha may have found the revolving column of fire in which to bathe meant eternal youth. (Edwards v. Sims, 232 Y. 791, 24 S.W. (2d) 619, 620.)

Unfortunately for Edwards such judicial sympathy was somewhat limited and all of his efforts to stay the survey were to no avail. The ever hard up Lee was finally able to gather the money needed to finance the survey by borrowing \$1,000 from the bank after his lawyer, Williams, agreed to act as suretor. Throughout the long litigation Lee borrowed repeatedly from the bank to a total of over \$2,500. (Richardson v. Lee's Admin, 278 Ky. 656, 129 S.W. (2d) 148.) The survey was completed and after considerable discussion over landmarks, resulting from the cutting of hickory, chestnut and oak trees and the removal of rock, on June 23, 1933, the court fixed the boundaries between Edwards' and Lee's land. (Edwards v. Lee, 250 Ky. 166, 61 S.W. (2d) 1049.) This judgment was affirmed.

In the final hearing it was declared that Lee was entitled to recover from Edwards -- with 6% interest -- a portion of the net proceeds realized from the years 1923 to 1930 at a rate directly proportional to the portion of the cave exhibited that lay under Lee's land. As a matter of fact, the court found that a little over 2,000 of the 6,449 feet included in the tourist tour of Great Onyx Cave were located under Lee's territory, thus he was entitled to one-third of the proceeds or approximately \$24,000. By the time that the case was conclusively settled in 1939, eleven years after the initial court action, the Lee estate had recovered \$35,397 which was reduced to \$32,097 by payments to administrators, lawyers and banks. In May 1939, the Lee family was once again in court in connection with the cave battle. This time Lee's administrator was taken to court by John E. Richardson to recover attorney's fees for services rendered to F. P. Lee during the cave rights litigations (Richardson v. Lee's Admin, 278 Ky. 656, 129 S.W. (2d) 147).

The arguments of the appellants and appellees in the Edwards v. Lee case are worth noting. In their refutation of Lee's claim of damages, Edwards' defense stressed: 1) that Lee had simply a hole in the ground, about 360 feet below the surface which he could not use or even enter except by crossing Edwards' property; 2) the cave was of no practical use to Lee without an entrance; 3) Lee's portion of the cave was without rental value; 4) Lee had not been deprived of physical occupation or use of the cave since he could not enter it; 5) the property had not been injured by Edwards' use of it, and since the damages action was primarily for trespass damages, recovery must be limited to damages to the property that could be rightly measured by benefits realized by the trespasser from his wrongful use of the property.

Edwards' lawyers, argued that it was a case of willful trespass, but far more serious than casual treading upon another's land since the trespasser had actually used Lee's property for personal profit. The taking of esthetic enjoyment, which was the object of Edwards' commercial tours, was viewed as equivalent to the removal of tangible goods in that it could justify the recovery of the reasonable rentable value of the cave. In addition to trespass, arguments in support of the plaintiff's claim for damages included the right to "mesne profits" which are characteristically awarded after a successful ejection of a trespasser or "squatter", and the right to recover for the damaging use of a trade-name or other similar right. In general the plaintiff's case was based on fundamental principles and analogies, the latter often made to rather dissimilar cases (Edwards et al. v. Lee's Admin. et. al., 96 S.W. (2nd) 1028).

The single most important effect of this final ruling in the Edwards' v. Lee case was the absolute application of the *ad coelum* principle. This set a precedent which was the most common reference point in future litigation regarding subterranean limits of land ownership. Moreover, the Edwards v. Lee case was without precedent for such an application of this principle. Indeed, there are at least two earlier cases in which the ownership of land and the caves or rights to caves located below the surface, were distinctly separated. The earliest such case is from 1903, Hazen et. al. v. Colossal Cavern Co. et. al. (Ct. of Appeals of Ky., 76 S.W. 116). In this instance the written contract entered into by L. W. Hazen and Sophronia Hazen, and M. H. Smith specifically stipulated that the Hazens conveyed to Smith "all of their right or title in all of the land owned by them in the counties of Edmonson and Barren on

which was located any cave or entrance thereto, and especially the new cave recently discovered by L. W. Hazen (Colossal Cave); also all cave rights and privileges owned by them in two other tracts of land" (p. 116). It is interesting that the contract not only arranged for the transfer of all cave rights of the Hazens, but also, for the protection of the buyers from Hazen and his wife; it essentially required that they get out of the cave business in the area. The clause was included in the contract because of the precedent of the Hazen's earlier exploitation, of other cave owners property in the area. (For a fuller discussion of the Hazens see Journal of Spelean History, Vol. 4, #4, 1971, p. 63).

Another important instance of the court differentiating between land ownership and cave rights is found in Cox et al. v. Colossal Cavern Co. (210 Ky. 612, 276 S.W. 547, 1925). In this instance all cave rights to known and as-yet-undiscovered caves were retained by the owner, Mary Proctor, at the time of the sale of the property under which caves were known to already exist and which had a good potential for further speleological finds. Moreover, rights-of-way to all caves were guaranteed: "right of way for caves that may be upon or under said tract of land with the full power and privilege of exploring, opening, and visiting and exhibiting said caves to visitors and should any cave or caves be discovered in or under said land"

While the courts did find justification for the separation of surface land ownership and cave rights ownership in these caves, they are not really strictly comparable to the Edwards v. Lee case, in that the separation of ownership of above and below surface areas was explicitly laid out in a legal document -- bill of sale in one case and will in the other.

Historically the greatest importance of the Edwards v. Lee legal war has been the strong impact it has had in influencing cave ownership hassles over the past forty years. Indeed, because of the clear cut and absolute application of the *ad coelum* principle in this case, most subsequent controversies over subterranean land ownership have never reached the courts.

NOTES

¹It appears that although the court record gives Edwards credit for discovering and developing Great Onyx Cave, Turner in fact, discovered the cave and was solely responsible for much of its development. Turner's work in the cave included blasting the entrance, surveying the passage and building the concrete steps and bridges. As Great Onyx became popular, Edwards claimed responsibility for discovery and development work. Turner apparently somewhat resented this, however, he agreed to work for Edwards as his chief guide for many years. I am indebted to Dr. Stanley Sides for the above information as well as numerous insights regarding the cave wars.

²(Added while in press) As pointed out in a general review by W.R. Walker and W.E. Cox [presumably no relation!], the concept of the surface owner's exclusive control over unusable subsurface space is also supported by a case concerning ownership of Marengo Cave, in Indiana [Marengo Cave v. Ross, 10 N.E. (2nd) 917 (Ind. 1937)]. The cave extended beneath land adjacent to the land on which the entrance was located. (Subsurface Environment -- Private Property or Public Domain: Journal of the Hydraulics Division, American Society of Civil Engineers, Nov. 1974, Vol. 100, No. HY11, pp. 1699-1705). "In this instance the party who controlled the cave's entrance did not contest the overlying owner's original claim to the portion of the cave in question but claimed title on the basis of adverse possession. Although possession for the necessary period of time was conceded, the court held that the conditions of the possession were not adequate to effect a transfer of title. One of the essential elements for the establishment of title by adverse possession is that the possession must be open and notorious, a condition not fulfilled since the overlying owner of the cave was not aware that it extended beneath his property during a major portion of the period of possession." (p. 1703)

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The Devil's Icebox, 1833 to 1973

H. Dwight Weaver

(The following is reprinted from the Ozark Speleograph, Vol. 4, No. 1, pp. 25-40, by permission of the author.)

The roaring, swift waters of the underground river was a threatening fury. The endless rush of water sprang from darkness, swirled by, and swept away, again into darkness but this time toward the only known entrance to the cave several hundred yards downstream. But the watery route was now blocked! A low-ceilinged stretch of wet, rock-walled passage needed to be negotiated but that low area had now become a sucking siphon! Water rolled up behind it, clawed at the chilly cave walls, fell back on itself in confusion, and gurgled about awaiting its turn to be sucked through.

"We resigned ourselves to the fact that we might be spending quite a time . . . waiting for the water to go down enough to get out of the cave. We were trapped!" said Veita Jo (Blevins) Hampton.

Trapped is not a kind word, especially to cave explorers. Those who dare challenge the Devil's Icebox near Columbia, Missouri, must face the potential threat of this cave's hazardous nature. Veita Jo and her three companions had dared to enter the cavern on a rain-drizzling morning in March of 1959. What began as an ordinary expedition into an extraordinary cave became a harrowing experience not to be forgotten.

Most explorers have been fortunate enough through the years to conquer the dangers presented by this formidable cavern. To date, only two lives are known to have been lost, both from drowning, an event that occurred near the cave's infamous "low spot" along the underground river. Explorers Robert "Bob" Dean Strader of Columbia, Mo., and David Cook Jr. of St. Louis, Mo. lost their lives in the cave on Sunday, December 2, 1973. They were part of a 19 member expedition. (Rumors persist of two lives lost at the cave's entrance in the early 1900's. Both supposedly, due to "falling" into the entrance opening.)

Thousands of individuals however, have explored the Devil's Icebox without mishap. Time has lost the names of many of the early explorers. D. M. Emmett was undoubtedly, one of the first.

Around 1893, Emmett and another man, possibly James Emmett, entered the cave in a boat and are reported to have explored it for a distance of two miles. He told of his trip later, to John H. Heibel, a gentleman then living near the cave. Emmett's vivid description of sights seen in the cave leave no doubt but that he penetrated for quite a distance.

Emmett's revelations gained attention and it soon became widely rumored that Conner's Cave or Rock Bridge Cave, as it was often called in those days, was eight miles in length. This unsubstantiated statistic was passed on to be repeated in more than one scientific work by learned individuals of impeccable reputation. "In Boone County there are several caves . . . Conner's, the largest, is said to have been explored for a distance of eight miles," wrote Luella Owen in 1898 in her classic study of Ozark caves.

Ironically, D. M. Emmett was close to being correct, but it has taken cave explorers more than 70 years to give credibility to this early adventurer.

If the Indians knew of the Devil's Icebox, they left little evidence. Potawatomi, Sac, Fox, Kickapoo and Iowa tribes hunted the region originally and the last Indian raid in Boone County where the cave is located, was in 1818. Indian mounds and artifacts seem plentiful in the area and several caves are noted for their Indian artifacts; however,

archaeological work in the county has been largely inconclusive. The most reliable records are those of Carl Chapman and James Lowe who surveyed the archaeological potential of the area in 1935.

Daniel Boone ventured into the area in 1808 and discovered a salt spring of considerable note. This gave birth to the famed Boone's Lick Road. The county was also named for Daniel Boone as a tribute, in 1820.

Lewis and Clark came in 1805 and on their historic trip through paused to make camp in a cave along the Missouri River.

Settlers began to arrive a little before 1812, making use of Boone's Lick Road which had opened up northern Missouri to settlement. "Old" Franklin about 25 miles northwest and up river from the Devil's Icebox location, transformed itself into a bustling frontier town and a jumping off place to all points west. The village, by 1820, could boast of a private school, a library, and the first newspaper west of St. Louis. It also became the first land office west of Pennsylvania.

Original patents for portions of the land beneath which the Devil's Icebox lies, were issued in 1812 at the land office in "Old" Franklin. One parcel of land known as old "Toalson Place" bears the signature of John Quincy Adams on the original patent.

It was the need for paper upon which to print the Franklin Intelligencer newspaper that first brought the Devil's Icebox and its attendant natural rock bridge into prominence.

Water always flows from the cave's underground stream. In times of wet weather the discharge can be very high. The waters of the underground river first touch daylight when they pass beneath a long, wide, deep crevice that gives access to the large upstream portion of the cave. Downstream from the crevice the water courses through a spacious cavern that can be easily explored for several hundred feet to a lake chamber. From this point the water passes through an underwater channel and once again emerges to daylight, this time at the mouth of a cave opening about 200 feet north of the crevice entrance to the Icebox.

The small opening where the cave stream finally flows onto the surface is sometimes referred to as Conner's Cave and is situated at the southern extremity of an elongated sinkhole valley more than 200 feet long, 50 feet wide and 60 to 100 feet deep. At the north (downstream) end of the sinkhole valley the cave stream flows beneath a majestic natural rock bridge. The route through is a tunnel 150 feet long, 50 feet wide and 25 feet high. The bridge has a thickness of 40 feet or more. Once the stream flows through the rock bridge it meanders down a wide valley to become a tributary of Bonne Femme Creek.

In April of 1823 the Franklin Intelligencer editor called attention to the need for a paper mill in Missouri. The subject remained a topic of discussion for ten years and then in 1833 David S. Lammé, John W. Keiser and Company established a steam flouring mill at the Rock Bridge site. It then became known as Rockbridge Mills.

To power the flowing mill, Lammé and Keiser effectively harnessed the cave stream at the south end arch of the great stone bridge. Large blocks of stone chiseled from a bluff-line just downstream from the northern terminus of the rock bridge, were used to build a dam. A water powered wheel was then installed. Today all vestige of this and later structures, except for the rock dam, are gone.

Once in operation, the millers made plans to expand their enterprise, announcing in January of 1834 that they were making arrangements for the manufacturer of paper. Their public notices stated that they would pay for good clean linen and cotton rags three cents per pound, and for woolen, ten, and jeans rags one cent per pound. (It was not until 1840 that the Germans invented a process for grinding logs into a fibrous pulp for paper making.)

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The paper mill, owned by David S. and William Lamme, John W. Keiser and Thomas J. Cox, commenced the making of paper late in 1834. The Intelligencer newspaper for the last week of that year was issued on paper made entirely at Rockbridge Mills. The following year the St. Louis Missouri Republican tried the Rockbridge Mills product.

This was the first paper mill in Missouri. In 1835, boasting of the quality of paper made at the mill, a journalist wrote "The paper will compare advantageously with, if indeed, it be not superior to, any manufactured west of the mountains."

But the regional demand for paper was not yet great enough. The mill was ahead of its time. In a few years it closed for financial reasons.

Rockbridge Mills, however, had many decades yet to serve its community. A leather tanning operation followed the flouring and paper mills at the dam site. And in the 1840's one John H. Bryan operated a distillery at the site. Bryan bartered his whiskey, it is said, for corn, wheat and other farm commodities. He finally sold out to James McConathy of Columbia and McConathy Rye was soon being peddled throughout the region.

In 1854 the famous Columbia to Providence Plank Road was built. It passed near the Rockbridge Mills and gave easy access to the Missouri River. It is said that the ox team wagons loaded with whiskey barrels which McConathy delivered to riverboats, were so heavy they helped hasten the destruction of the historic old Plank Road.

McConathy didn't worry much. His whiskey distillery at Rockbridge Mills was doing well.

Passing on to his reward in 1866, James McConathy bequeathed his whiskey enterprise to his son Henry McConathy who ran the operation yet another seven years. In 1872 he sold the mill, distillery, store and considerable acreage to James and David Emmett.

David Emmett was destined to become the first human to explore the Devil's Icebox but not until 21 years after his initial purchase of the property. In 1875 Emmett became a postmaster for the Rockbridge Mills area. In 1889 a disastrous fire brought ruin to the historic old Rockbridge Mills structure. The general store and blacksmith shop operated in conjunction with the mill, remained on location for a time and were then moved to a new location at Pierpont.

Many questions have yet to be answered about the early years in and about the Rockbridge Mills. One question in particular concerns the leather tanning operation. What connection, if any, did the tanning enterprise have with one that operated at the mouth of Spring Cave about 2 1/2 miles south and a little east of Rockbridge Mills? This would have been in the 1850's. Before the Civil War a Capt. P. J. Ruffner and Eli Bass, two local pioneers, operated one of the largest leather tan yards in Missouri at the mouth of Spring Cave. Green hides and oak bark stripped from trees in the area were placed together in large handmade wooden vats. These were filled with soft spring water. The mixture was then allowed to soak for one entire year to produce the finished product -- oak tanned leather.

Rockbridge became a landmark for early travelers as the only prominent route through the area, known locally as the Old Ashland Rock Bridge and Columbia Road. It passed within sight of the scenic rock span.

It is said that during the early 1900's John Heibel of Columbia operated a distillery at the Rockbridge site also.

John Heibel's plans for the Rockbridge between 1918 and 1925 were eventful. In association with his brewery, he entertained the notion of creating a resort. With help, he did build a dance floor and merry-go-round at the Rockbridge site. For a time people came from miles around to dance, drink and enjoy themselves. Great socials and political rallies took place. And story has it that one evening while people were square dancing at the base of the Rockbridge, two inebriated fellows shoved a car off the lip of the Rockbridge. The auto took the plunge and shattered into

ruins so close to the activities below, a few feet might have meant death to some of the dancers.

This plethora of activity at the very edge of the unknown once again stirred peoples' imaginations. Where did all the water come from? Was the Devil's Icebox really 8 miles long?

By 1924 most people had forgotten about the adventures of D. M. Emmett; that is, everyone except John Heibel who had since moved from the cave area into the town of Columbia, 6 miles to the north.

In 1924 Ben M. Yates of McCredie, a small village 20 miles east of Columbia, and his two sons, launched themselves for the first time upon the dark waters inside the Icebox crevice. Using an Ozark long-john boat and equipped with food, lanterns, candles, and a camera with flash powder, they began an upstream journey to make history. They were gone for nearly 24 hours.

On their trip they navigated the course of the subterranean river for a great distance, crossed clay and cobble barriers in the stream, passed beneath towering domes, and discovered gigantic hallways, avenues and formations beneath the earth -- all of it created by the underground waters of the land.

It was Yate's opinion that he and his sons penetrated inward for 5 miles on their first attempt. Appetites whetted, Yates and sons made a second attempt to explore the cave in December of 1925 during the Christmas holidays, but had boat problems. "It is the fact that the cave can be explored only by boat," said George R. Kunkie to whom Yates related his experiences at a later date.

The story of Yates's most successful expedition was told to Mr. Kunkie in September of 1926, a story that was to raise a storm of controversy when Kunkie made public Yates's claim to be the first person ever to enter and explore the Devil's Icebox.

"On August 25, 1926," explained Ben Yates, "my son William and I started into Rock Bridge Cave, six miles south of Columbia, and attempted to reach the back end of it. We had made an extensive trip in two years before and knew we had a hard trip ahead.

"The only entrance to this cave is through a sink known as the Devil's Ice Box, and the only means of getting in is by traveling in a boat for the first mile and a half. This part of the cave is from 20 to 50 feet wide and has only one ripple.

"While the stream of water that comes out of the cave is small, the amount of water that stands in this first stretch is rather large, for in a number of places a ten-foot probe failed to reach the bottom.

"At one point, some 200 yards in, the rock ceiling is only 10 inches above the water and we were compelled to lie flat on our backs and turn our light over on its side to work our boat through. This section was only about 25 feet in length. The water here was eight feet deep.

"The largest part of the cave begins where the first stretch of water ends, the first room averaging 100 feet in width for the next mile. At one point in this first stretch our boat grounded and it took some little work to get it loose.

"The two things which we watched carefully were that our boat did not get away from us and that our lights were working good, as it is my belief that one could not come out of the cave alive without a boat and a good light.

"The greatest danger is that a rain may come and close the passage at the point of low ceiling, by causing the streams to rise. In that case a wait of from two days to a week might be expected.

"There is a large room about one and a half miles in, which is about 150 by 200 feet in size, and part of this

room is tipped up until the floor is about 90 feet above the water level. Near this point the cave is divided into four passages, three of which unite further on. In the right passage there are great stalagmites, directly across the passage. This mass of stalagmites is several feet in cross section and the longest are about 12 feet in length.

"A flowstone formation resembling elephant ears is found in a great number of places and is trimmed with pearl-like beads of a very regular pattern. There are great crevices that show in the ceiling throughout the cave. I recall one in the ceiling that must be two hundred yards long and some open in the ceiling to a height of 50 feet or more. The peculiar part of this is that all these openings are straight and all of them point exactly the same by the compass

"Two years before we had explored some five miles back and had been stopped by high water blocking the passage, so we were taking our boat in this time to cross these bodies of water. Nearly five miles in we were trying to work the boat in where there was a low ceiling and we were on our backs pushing along on the ceiling when the boat struck bottom. The boat was twelve inches deep and barely cleared the ceiling so we could not look over the side. At last we got loose and had to detour about a mile downstream.

"At five miles on this second trip we were on new ground to us and walking along the bank looked better so we tied the boat and traveled the rest of our journey on foot. From this point for the next two miles there is the finest scenery in the cave. The flowstones, the stalagmites and stalactites were whiter than nearer the mouth of the cave. Along here we crawled over great heaps of stone and could hear the water in stone below.

"Hundreds of sinkholes in the land above drain into this cave, and some of these show as small streams in the sides of the walls. Some of them enter through the top, while others have carved great domes in the ceiling.

"The rough tread on the seams of our boots showed in the tracks made two years ago as plainly as the day they were made.

"At about eight miles we turned around and started out, having been eleven and a half hours getting in. We came out in six and a half hours, for we knew the way and made no false moves. We believe that we were near the back because the smoke from the flash powder drifted toward the entrance at only about one fourth the speed that it had drifted nearer the entrance. We explored eight miles along the stream and four miles in side passages and we know that there are many side passages which have not been explored.

"My sons, William and James, and myself are the only persons who have entered this cave. If any cave in Missouri has been explored more extensively we would like to hear about it."

Yates was immediately taken to task by John Heibel who recalled the exploration by Emmett and another man in the 1890's. A local newspaper published the controversy and derived some entertaining copy for their paper.

Heibel states that Emmett reported having seen blind fish in the underground river. Yates disputed this and said that the cave life consisted only of ground puppies, crayfish, frogs and bats.

Reports of blind cave fish in the Devil's Icebox stream have not been verified, even by modern day speleologists, but a wide variety of cave life, some unpigmented, does exist in the cave.

In 1958 Steve Barnholtz and Edward Bardet discovered fresh water shrimp and white crayfish inside the cave. Bats are plentiful and several different species use the cave. And in 1959 J. William Neal identified transparent Collembola, white worms, white spiders and cavernicolus millipeds.

While there is now more than 6 miles of surveyed passage in the Devil's Icebox (main channel and side

passages combined), the cave is by no means fully explored or surveyed. The distances quoted by Yates, however, are misleading since his judgments were based on guesses. For instance, the five mile point pinpointed by Yates is less than two miles from the entrance.

It is interesting to note that Yates discovered a detour around the near siphon point he belabored. Known as the "By-Pass" among modern day explorers, it was rediscovered by accident in the mid 1950's and is used today by all those wishing to penetrate into the more remote sections of the cave.

Another interesting and intriguing observation made by Yates related to the cave air flow. He noted that there is a strong air current blowing in and out of the cave and that it varies with the season. In summer, he said, it blows out, while in winter it sucks in. Such strong air currents sometimes flow through the half mile long river section that cave explorers have had their carbide lights extinguished by the gale. In constricted and low-ceilinged sections a virtual "wind" has been known to whine past a caver's ears.

This air power is controlled in part by changes in barometric pressure outside the cave. A startling incident occurred in 1957 at a point 3,000 feet inside the great cavern which proved this point very well.

This writer and a second caver had entered the cave and were just beyond the river section when a resounding explosion occurred in the cave. The report seemed to come from a complex of high ceiling domes. The force of the report made our ears ring. At first confused and startled, we thought of any number of catastrophic events that might have taken place. But all was quiet afterwards except for a momentary "woosh" of air that followed. At the time we also noted a complete reverse in the direction of air flow inside the cave. Shaken but curious, we noted the time, place and event and went on our way. Later, the same day, as we returned to the same spot on our way out, a similar explosion occurred but with much less force than the initial one.

Once out of the cave we checked with observers on the surface and discovered that the two events underground had coincided with the sudden approach and final passage of a cold front moving through the area. Apparently, the cave air was adjusting to the change in barometric pressure and the explosion was the collapse of air pressure pockets.

Normally, in winter, the cave sucks in outside air. This phenomena is chillingly apparent to cavers who enter and exit the cave in winter.

William Halliday in *Depths of the Earth* (Harper & Row, 1966) cites an Icebox incident when two distinguished professors, exiting from the cave in winter in a leaky conveyance, had their clothes ice rapidly from the cold Missouri winter outside.

The occasion of this unusual and uncomfortable happening is well remembered by this writer who was one of the members of the expedition.

Our group had entered the cave that winter morning only to find the underground river frozen over at the cave mouth. Pushing an ungainly raft onto the ice, Jerry Vineyard and I proceeded until the ice broke beneath us. We jumped onto the boat, not wishing to sink below the ice for the water at that point was 7 to 8 feet deep. And, for a distance of a hundred feet we were obliged to hack a channel through the ice ahead of our raft -- an event that must surely have been a first in Missouri cave exploration.

The professors, for which the trip was designed, followed in their boats and proved themselves worthy cave explorers. On the return trip to the entrance, however, all had a very shocking experience. Wet and muddy from the long and tough boat journey, we re-approached the frozen area with much tribulation. We were again obliged to "hack" a channel, this time out. When the ice would no longer yield to our striking geology picks, we eased our way off the raft and onto the slippery ice. It was tricky getting our raft then onto the ice as well.

The professors, following, were not doing so well. One boat had sprung a leak. Sloshing low in the water and listing badly, it took much effort to bring them safely to shore. And during this painful task our clothing had begun to freeze. The cave was sucking in the frigid winter air like a giant vacuum cleaner.

But gaining the entrance was no great celebration. Our cars and dry clothing were still a quarter of a mile away and we had yet to haul our equipment up and out of the entrance crevice. Frostbite nearly claimed us all before a change of clothing brought much needed warmth.

"Hundreds of sink holes in the land above drain into this cave . . ." said Yates. The Icebox is truly a cellar of the countless sinkholes that blanket the rolling geography of this central Missouri karst area. Sinks in this landscape average nearly one to an acre and the Icebox drains a four-square mile sinkhole plain.

Since the founding of Chouteau Grotto Chapter of the National Speleological Society at Columbia, Missouri in November of 1958, the study and exploration of the caves in the Daniel Boone Region has been greatly enhanced. It has been the dedication of members of this caving group that has given us our best statistics on the Devil's Icebox and its complex system. But a determined assault on the Icebox began, as has already been shown, at a much earlier date.

Paul Johnson, a civil engineer as well as cave explorer and surveyor, had his initial look at the Devil's Icebox in 1954 while a student at the University of Missouri at Columbia. Overwhelmed by curiosity, he was able to convince several other student friends to assist him in an effort to map the huge cave. It was an ambitious idea and after several punishing trips into the cave, he produced a map that displayed the first 7,000 feet of the cave. This survey reached as far as Yates did on his first exploration into the Icebox in 1924.

One can only imagine the difficulties encountered when much of the surveyed region was along the underground river and had to be surveyed while standing in rocking, unsteady boats.

Graduating in the spring of 1956, Paul went to work for North American Aviation which took him away from Missouri and far from the Icebox he longed to finish charting.

In the fall of 1956 this writer entered the University of Missouri at Columbia and met up with Jerry Vineyard who was then a graduate student at the school. The two of us very promptly succumbed to the lure of the Devil's Icebox.

In Depths of the Earth (Halliday, 1966) this "lure" of the Icebox was mentioned. There is definitely something strange and mysterious about the Devil's Icebox. Its magical pull is truly inexorable.

The first large assault on the Icebox was organized in 1957 by this writer and Jerry Vineyard. The expedition was set for November and was to be one of the first such central Missouri trips sponsored by the then newly organized Missouri Speleological Survey of which Jerry Vineyard was a Director.

In an announcement for the trip sent abroad in September of 1957 Jerry wrote "The Devil's Icebox is . . . very large, approaching Carroll (cave) in size of passages Boats are required for the first 2500 feet, which is much like the water passage in Carroll, only a bit deeper and requires portaging around bars and islands. There are many huge domepits to be climbed Formations are few, but some are very spectacular"

In clarifying the objectives of the expedition he wrote "Two miles or more of the cave have already been mapped. An estimated three miles remain. There are persistent rumors of a second entrance, which was apparently found once but lost again. This will be one of the purposes of this trip -- find an alternate entrance to eliminate the use of boats There is a very real possibility of finding miles of virgin passage!"

The day of the big expedition arrived bitter cold and frosty. Twenty cavers, the best Missouri had to offer at that time, gathered to test the Icebox. Instead, the Icebox tested them, proving equal to its reputation. After many hours in the cavern, the explorers turned back after penetrating more than 13,000 feet without finding the end.

The search for a second entrance was pressed from above and below. Great domepits leading to the bottom of sink-holes in the surrounding karst area on the surface were scaled from below and scouted out on the landscape above. Alas, no connections or second entrance was found. The cave had retained its tenacious hold upon its great mysteries.

It was on this expedition that the first of a vast array of Icebox boats were tested, including canoes and assorted rafts of different types of floatation materials. As Halliday (1966) explained, trail and error finally produced a wooden framework affair supported by six inner tubes as the best floatation device.

George and Ruth Deike III, geologists, appeared on the eve of this winter adventure. They had just moved to Columbia where George would take up work on his doctorate in geology. As a husband and wife team they were unusual. Witty, energetic, professional and experienced in caving, they were the inspiration that spawned Chouteau Grotto and brought about the first comprehensive survey of the Devil's Icebox.

In the months and immediate year to follow, Ruth and George Deike led many exhausting trips into the cave, surveying foot by foot. This writer assisted on several of the trips. By late 1960 the first great push had peaked. The largest parts of the known portions had been committed to the drafters' linen. In 14 trips totalling 553 man-hours of toil, more than 30 participating cave explorers had surveyed 28,900 feet of the Icebox.

That was more than 12 years ago. The work still goes on for the Devil's Icebox has not been fully conquered. In 1969 a caver wrote "Chouteau explorers have kept on pushing the Icebox, and from time to time new footage is added to the map. Points in the cave have been checked by cave radio and the map proven to be remarkably accurate, considering the terrible mapping conditions."

"And so the legendary Icebox goes on, foot by foot, toward surpassing even the rumors"

In 1966 efforts were undertaken to transform the Rock Bridge and Devil's Icebox area into a State Park. Through the dedicated efforts of many Boone County citizens, community organizations and local business leaders, funds were finally made available to match those provided by the State of Missouri. Rockbridge Mills finally became Rock Bridge Memorial State Park and is now maintained and policed by the Missouri State Park Board. The park is gradually being further developed and enlarged.

Picnicking and hiking are daily summer activities within the park. Thousands upon thousands of persons have peered down into the awesome depths of the entrance to the Devil's Icebox. But only experienced, organized, well equipped cave explorers are permitted an opportunity to venture into the maw of this vast underground realm of nature. The dangers are all too real and ever present. The Devil's Icebox has not yet been tamed by commercialization, though such proposals have a long history of tenure.

When Ben M. Yates and sons told of their epic journey into the Icebox in 1926, they speculated upon the possibilities of entrapment should rains swell the underground river and close off the low spot just 100 yards inside the cave. This was the reality that faced Veita Jo Hampton and three other cavers that cold weekend in March of 1959 when rain did indeed trap them inside the cave.

There were rain possibilities on the day the explorers entered the cave but there was also a great deal of sunshine. Missouri weather is not always a certainty from hour to hour.

At the infamous low spot there was an easy 15 inches of clearance. Said Veita Jo, "we very calmly glided through the low place."

One half mile in where the cave becomes immense in size and boats are usually abandoned in favor of walking, they docked their crafts and proceeded on foot, taking photographs as they hiked. Not long afterwards however, someone noted that the cave stream, which is never far away from the explorer, was rising.

"Having hiked for a long time along slippery mud banks, through the stream at every meander, under the showering domes, we decided to take time out for another change of carbide and a check of water level and temperature," Veita Jo recalled.

"We also felt that it was past time to partake of economy size Hershey bars and some cheese and crackers. All this done, we tramped on our way, becoming leery of the rising water, and knew that normally, water doesn't rise eight inches within an hour's time.

"The showers we received every time we passed under a large dome began to seem somewhat unusual because actual torrents of water were falling from the high roof of the cave. The conclusion was that it must have been raining very hard on the ground above us and the water was seeping through at an extremely fast rate. We also began to be suspicious of the tremendous swell of the stream that runs the complete length of the known or mapped area in the cave. With so much evidence of fast rising water, and knowing we had only fifteen inches to pass through on the way into the Icebox, we made a quick aboutface, and started for the rafts. Between this point of sudden decision and the place where the rafts were waiting, there is one bend in the stream where in more normal situations, persons can step across on rocks to avoid getting soaked to the billfold. But on the way out, the water had risen so much that we were forced to wade across the rapidly moving stream, and go at an almost running pace to find the rafts. Once there, we climbed aboard and launched ourselves into the now even deeper flood.

"Our rafts moved swiftly over the surface of the water and in some places where we had forded before, we glided over with ease and enjoyment. I had the frontier position as I was on the front of the first raft. I compared the feeling with that once-in-a-lifetime experience of riding in the front car on a roller-coaster. It was an exciting ride, and the four of us were looking forward to going over the rapids because we thought there would now be enough water to carry us over without sitting the rafts on a pile of boulders. In this moment of high anticipation we forgot that the ceiling on the other side of the rapids gradually lowers to the water level, and it would certainly be below water level by now.

"We reached the rapids even sooner than we expected and with shouts and much waving of paddles went bounding over them -- then immediately before me was a wall, and there was no room to pass under it. I could not stop with the paddle, so I raised my foot and placed it against the wall to keep the raft from going under. We had thoughts of unloading until I turned to see the other raft coming over the top of the rapids. It hit us broadside and dumped all four of us

"We spent little time righting ourselves and dragging the rafts onto the bank. Wet to the neck, and uncomfortably cold, we drug the makeshift boats across the rocky bank and launched again on the other side, this time with much caution.

"Approaching a large, dry, somewhat warmer side passage we decided that the water was surely too high to try to get through the low stretch. We resigned ourselves to the fact that we might be spending quite a time in this passage, waiting for the water to go down enough to get out of the cave. We were trapped. We had heard stories of such things, but of course, never thought it would happen to us -- four cavers -- trapped in a cave by high water. It hadn't had time to become funny. None of us know just how much time we spent trying to keep warm and watching the

water level rise So there we sat. We played charades. We counted bits of carbide. We told stories. We shivered and shook, and even slept awhile to pass the time of day, or night, we didn't know which. At first the water rose . . . then it began to go down.

"Later, much later, we became impatient and again climbed onto the rafts, hoping we would be able to squeeze through to the outside. No one was panicky, just anxious and wet, and hungry. We finally came to the low spot and prepared for exit, only to be disappointed because we could not pass through the seven inch space at all. We retreated into a small eddy away from the passageway and began to deflate the innertubes which were lashed to the underside of the rafts. This job used up more time and we made a second attempt to go through. This time we were determined to get out, even if we had to swim and push the rafts through.

"A chilling wind blew in from the mouth of the cave. I was lying flat on the raft; my back in the cool water. I felt the coldness penetrate my already damp clothes, and seep slowly into my boots. With my lamp sitting on the edge of the raft beside me. I saw nothing but blackness, felt nothing but fear of the wetness which seemed to close around me, and heard nothing but the wind breezing across the surface of the water. The space between the water and the flat, bedrock ceiling seemed to press me tightly, so tightly I could barely breathe. I quivered when the rough surface of the rock above scraped against my face, grabbing at my cheekbone and holding on as the water under me pushed the opposite way. Now I could feel the water creep through the hair around my neck and drops of the creeping liquid trickled into my ears. I could not move away from it. Trying to relieve the pressure, I raised my hands and pushed hard against the ceiling and went forward. In that moment I was able to turn my face toward the other side, flattening my nose in the process, for there was only seven inches between the bed rock and the swiftly moving water. When I pushed again, my feet raised from the water and my shoulders shoved the raft further under. What little air we had left in the innertubes rebelled against this pressure and the raft leveled itself quickly, again causing me to be pressed hard against the dry, grating roof. I continued to push and turn and my ribs began to ache from the pressure and wet coldness. The position of my legs as they hung off the front of the raft caused my feet to become numb. The tiny flicker of light that my lamp had maintained was now slapped out by the lapping water over the front of the raft. As that tiny flame went out, my hope went with it and my head reeled at the possibilities I foresaw.

"Then suddenly as I lifted one foot to block the wind from my chilled body, I felt that there was open space above my legs. At once I knew that after one more push through the passage, I would be able to sit up and breathe deeply. With what I had thought might be my last effort, I reached and shoved hard, and was immediately freed.

"A tingling sensation ran through my body and I gulped to taste the fresh air being blown from the entrance. For a moment I fell into a daze and recalled the events of the day one by one

"As I stood outside the cave and gazed at the bright stars, I was silently grateful for fresh air and vegetation . . . and those blessed people who had . . . come to investigate. The minute we emerged from the mouth of the Icebox, we were welcomed by warm lights and questioning faces."

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CHART OF THE MAMMOTH CAVES

EXPLANATION	
A	Caves explored to the end.
B	do unexplored, left open.
C	Section of Green river
D	Ravine.
E	Cave House.
	Miles in length
FF	Main Cave, about 7
G	Big Bat, or Audubon's Cave, 1/2
H	Little Bat Cave, 1/4
II	Haunted Chambers, 3
K	Cinder-bank Cave, 3/4
L	Preston's Branch, 3/4
M	Rocky Cave, 1 1/2
N	Black Snake Branch, 2 1/2
O	Stephen's or Fingal's Cave 2
P	Invalid's Cave, 1 1/3

Q	Side Caves,	1/8
R	Saline Rooms,	1/4
S	Black or Deserted Chambers.	
T	Solitary Way,	1
U	Coral Cave,	1/2
V	Blue Spring Branch,	1 1/4
W	Sim's Pit Branch,	1 1/2

Total distances explored, 24

- X Cave road.
- Y Louisville road
- Z Lexington road
- * Three forks, S. road to Nashville

EXPLANATION I-I

- a Mummy's Tomb
- b Post Oak Cavern, or First Echo
- c New Register-room, or White Chambers.
- d Old Register-room
- e Stalactite Grove
- f Hercules Pillar Grove
- g Market House Grove
- h Buonaparte's Bulwark
- i Vulcan's Blacksmith Shop
- j Wilkie's Arm Chair
- k Washington's Dome
- l K & L passes under II
- m Cleopatra's Arbor
- n Lover's Leap
- o Elephant's Head
- p Pluto's Elbow
- q Jupiter's Belfry
- r Buonaparte's Dome
- s Indian Monument
- t Cooling tub Room
- u Flint Pit
- v Cinder-bank Room
- w Coral Waterfall
- x Fairy Grotto
- y Spring Dome
- z Second Echo

EXPLANATION OF F-F

- a Pit, and mouth of cave
- b Gullet
- c First Hoppers and first City
- d Second Hoppers and 2d City
- e Cathedral, or Church
- f Steamboat room or Panther's Cave
- g Trap doors
- h D——'s Looking-glass
- i Fox Alley
- j Cataract
- k Stooping Way
- l Turnpike Arch
- m Grand Temple, or 3d City
- n Ross' Hall
- o Little Temple, 4th City, or the Crossings
- p Bachelor's Hall
- q Cupola
- r Narrows
- s Antichamber
- t Low and broken ceiling
- u Albany Basin
- w Full room End of Main Cave

EXPLANATION OF N AND O

- 1 Wooden Bowl
- 2 Covered Pit
- 3 Side Saddle Pit
- 4 Covered Highway
- 5 Bottomless Pit
- 6 Lake
- 7 River and lighted platform
- 8 Labyrinth
- 9 Music room
- 10 Starlight Pit
- 11 Stephen's Bend
- 12 Wandering guide's room