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THE COTTONWOOD, DULZURA & OTAY WATER SHED
DEVELOPMENT

This development is commonly known now as the Southern California Mountain Water System, partially developed by the Babcock & Spreckels interests and later on completed by the City of San Diego. It embraces the ownership of Morena, Barrett, and the two Otay Dams. D. O. McCarty is supposed to be the originator and promoter of this project. On April 24, 1919 he wrote me as follows:

"My dear Fletcher: Referring to my connection with the Cottonwood Creek and Otay development will say that in the 80's I examined the drainage of the Cottonwood Creek for the purpose of obtaining irrigating water for the Otay Mesa where I owned and controlled a large body of land. During the progress of this examination I met an old friend whom I knew in San Francisco when I was engaged in the newspaper business. He too had been a publisher and writer, I told him that I was then engaged in a small irrigating water scheme. He at once became enthusiastic over the water proposition, not only for the City, but the County of San Diego, and wanted to know why I did not enlarge my scheme for irrigation. I replied that I did not have the money, nor could it be obtained in San Diego for that purpose, although it was most important. He, without hesitation, proposed to raise all the money required if I would join him and organize and incorporate a land and water company with capital stock in a sufficient amount to carry through a big scheme. After a week's consultation, we decided to incorporate the company with a capital stock of \$3,500,000 and place the shares at \$10 each; this would give us 350,000 shares of stock which could be sold at once to reliable persons, well known to us. We lost no time and on February 15th, 1888 we incorporated the Mount Tecarte Land and Water Company" with the above named,

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capital stock; making W. H. Barton president, the above mentioned gentleman, and myself superintendent. We had already discussed the enterprise with Lew B. Harris, Jr., an eminent hydraulic engineer, with long experience as the head of the water system of the Southern Pacific Railroad Company. The Board of Directors at their first meeting elected Mr. Harris by unanimous vote, chief engineer of the Mount Tecarte Land and Water Company, and directed him to proceed without delay to organize a corps of assistants, make a thorough survey of our proposed water enterprise and determine the cost of the two lines of the aqueduct from its source to the distributing dams. This work required eight months, the routes were very rough and difficult, but the survey was very thoroughly and scientifically performed and very creditable to Mr. Harris."

The following is Mr. Harris' report.

"San Francisco, October 11,
1889

President and Directors Mt. Tecarte Land and Water Co.,

Gentlemen:- As it was found that the plan of carrying water through Mexican Territory in order to distribute it upon American Territory met with some objections, owing to the prevailing idea that our construction in Mexican Territory would not be entirely under American jurisdiction, it was thought best in constructing our upper system to try and eliminate this objectionable feature instead of combating it. This, and the fact that a large number of landholders whose lands lay upon the new route signified a willingness to subsidize the Company by giving land in lieu of money for water rights, induced the Company to investigate the feasibility of conveying the water of the Cottonwood Creek and its tributaries over and upon the lands lying between that stream and the City of San Diego.

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In consequence I made a reconnoissance, followed by a survey demonstrating beyond a doubt, the practicability of bringing the water of Cottonwood Creek through the Dulzura Pass, distant about 30 miles by wagon road from San Diego, and thence through the Jamul Valley and by way of the Janal Mesa into San Diego. The plan as now proposed is as follows: The point of diversion is at an altitude of 1,600 feet above sea level, and just below the junction of Pine Valley Creek and the Cottonwood Creek. (Location Barrett Damsite, ~~Otay Damsite~~)

At the junction of these two streams is quite a large valley embracing about 800 acres, in the bottom. At the damsite the canyon narrows and the sides are of solid granite and very precipitous, forming an excellent point for the construction of a high dam. The dam as planned will be 100 feet in height and 450 feet on the crest. The reservoir will cover 800 acres, and will contain about 800,000,000 cubic feet, or 6,000,000,000 gallons. The construction of this dam will be much less than any similar construction in the State, owing to the fact that the ~~Jamul~~ Jamul cement deposit is only 15 miles distant, and the Jamul cement can be delivered to us at the works for just 1/2 the cost of Portland cement in San Diego, and as cement is one of the greatest items of expense in dam construction, the expense of this construction will be reduced fully 1/3.

The estimated cost ~~of~~ of this dam is \$204,000. From this dam the water will be conveyed in a wooden flume, 5 ft. wide and 4 ft. deep, constructed on a grade of 10 1/2 ft. per mile, which will give a velocity of about 5 ft. per second. This flume will be covered, and will be about 15 miles long, and will cost \$10,000 per mile. At the end of the flume the water will be turned into

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Jamul Creek; this is at the Dulzura Pass and at an elevation of 1,650 ft. above sea level. The water will be permitted to flow in the natural channel until an elevation of about 1,000 ft. is reached, when it will be diverted from the stream and conveyed in cemented ditches, one of which will skirt the northern boundary of the Jamul Grant, and passing through the Jamul Pass, cross the Sweetwater Creek by an inverted syphon; and from the line as continued around the north side of the Sweetwater Valley the entire tract lying between the ditch line and the Sweetwater will be irrigated, including Spring Valley, and the Mesa immediately east and south of San Diego, about 35,000 acres. The second ditch line will pass to the south of San Miguel Mountain and irrigate a portion of the Jamul Grant, the Janal Grant, the Otay Grant, and all that portion of the National Grant, that lies above the Sweetwater System, about 35,000 acres. The third ditch line will pass down the south side of Jamul Creek, skirting the San Ysidro Mountain and terminate at the distributing reservoir, ^{Otay Dam site} now being constructed at the head of the Otay Mesa and which will supply the Otay Mesa, and all that section lying to the westward of the Otay Mesa, including Oneonta, South San Diego and Tia Juana, about 25,000 acres. At the west end of the Otay Mesa we have a fall we can utilize of three hundred feet. The power that can be developed at this point will amount to about 1,500 horse power, and the water can afterwards be utilized for irrigation without any waste or any detrimental effect upon the water.

This power can be used there, or in driving dynamos and generating electricity, which can be conveyed to San Diego, only 12 miles distant, and utilized in that city for manufacturing, and driving cable cars, and numberless other purposes to which such power could be put.

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The watershed of 600 square miles above the diverting dam comprises the best portion of the drainage; as the diverting dam having an elevation of 1,600 feet, and the highest peaks upon the drainage an elevation of 6,500 feet, thus taking in all that portion of the county upon which we have our heaviest rainfall the mean average rainfall upon this area, by the most conservative estimates based upon records kept at Julian, Campo and Mesa Grande and San Diego I have taken at 24 inches, and our capacity is simply limited by our reservoir capacity; as we have more than three times the amount of water falling upon our drainage every year than we can impound in our reservoirs. The proximity of this water supply to the city of San Diego, the reliability of the rainfall, the fact that the streams run all the year round, and a large proportion of the drainage area has a high altitude, the existence of so many good storage sites, the large area of fine land that lies adjacent to this water supply, makes this one of the most valuable water rights in Southern California and San Diego must eventually derive its water supply from this source.

The cost of construction necessary to bring under irrigation about 35,000 acres of land, and to bring water into the city of San Diego by the middle route, is as follows:

Dam, (including reservoir site, 800 acres, @\$20-\$16,000	\$220,000
15 miles flume @ \$10,000 per mile	150,000
25 " cemented ditch @ \$4,000	100,000
10 " pipe, 18 inches @ \$12,000	120,000
Engineering	10,000
	<u>\$600,000</u>

These estimates are very liberal, I have allowed for all contingencies, and am confident that the work can be built under the estimate.

It is proposed that water be delivered to purchasers at the rate of \$1000 per miner's inch, the duty of a miner's inch being taken at

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20 acres. Where the landowner prefers, and many have stated their preference, we propose to deliver a water right for $2/3$ of the land owned, upon the land-holder, executing a deed to $1/3$ of the land. Thus the owner of a 160 acre tract will give us a contract for a deed for $53\text{-}1/3$ acres, the deed to be given when we have completed our ditch line to his property, and the company giving him a water right to $5\text{-}1/3$ miner's inches of water, and charge him an annual rental of \$3.00 per acre for use of water. The capacity of the flume will be 5000 miner's inches, and the subsequent expense to develop the property to its utmost capacity will be in the way of ditch and dam construction, which can be done as the demand for water requires. Of course, in ^{the} construction of our lower system we will find our surveys and Concession from the Mexican Government indispensable, and propose to use it in that connection, as by the construction of that system we cover an immense tract of valuable land.

Very respectfully,

LEW B. HARRIS, JR.

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On May 13, 1919 Mr Mc Carthy wrote me as follows:
"My dear Mr. Fletcher: Soon after Chief Engineer's Harris' report was made and adopted by the Board of Directors of the Mount Tecarte Land and Water Company a large force of men were put to work at Dulzura Pass for the purpose of making a deep cut there, because it was found to be cheaper to make this cut than to run a tunnel through the pass for the flume conveying the water. For several months before this, operations were under way making excavations for a distributing dam at the head of the Otay Mesa. Being the Superintendent of the Company, I was kept busy from early morn until late in the evening between the two camps of laborers. For many months the president of the Company had been in correspondence with an English syndicate of capitalists, whose agent was on his way to San Diego, California, for the purpose of inspecting the Mount Tecarte Land and Water Company's drainage and reservoir sites. Our water shed had an area of 4700 square miles, which included the Cottonwood, Campo, Pine Valley, Tecarte and some territory south of the boundary line. After the report of the inspection had been made to the Sundicate a deal was made for all the money that the Company might require for the rapid cons ruction of the system provided we obtain the contemplated cogsession from the government of Mexico.

Early in April 1888 the Board of Directors decided to send a representative to the City of Mexico with full power to negotiate with the government for the concession desired, and as I was familiar with the Spanish language and well known to prominent influential Californians, among whom were my personal friends, Senator Leland Stanford, Governor ~~St~~ Geo. C. Perkins, Governor Pio Pico, Congressman Rumaldo Percheco and C. P. Huntington, from

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whom I obtained letters of recommendation and endorsement. Soon after this the Directors requested me to proceed at my earliest convenience to the City of Mexico, accompanied by the Chief Engineer Lew B. Harris, taking all maps and other data that might be considered necessary for the occasion.

It was sometime in May 1838 that we left San Diego for the City of Mexico equipped as directed; we made the trip in good time which was pleasant and uneventful. Upon our arrival there we at once proceeded to business by employing Judge Ignacio Sepulveda as our attorney, who was the personal attorney of Gen. Porfirio Diaz, then president of Mexico. This eminent and distinguished lawyer I had known in California when he was District Judge in this State in the early days. The next day I called on the Minister of the United States, General Edward S. Bragg, and was introduced to him by Judge Sepulveda; General Bragg at once made an appointment to meet the President for the purpose of introducing him to me. I met the president a few days afterwards with our minister (who are now designated ambassador) whom I found very affable and agreeable. After I had stated at length the purpose of my visit to Mexico to which the President listened with apparent interest and patience said, "Mr. McCarthy, there will be no difficulty in you obtaining such a concession for your company, I can see at once the great advantages it would be to our people living on that frontier, and I will do all in my power to encourage granting such a Concession." Upon leaving, the President took my hand and said, "Now, Mr. McCarthy, at any time you want to see me before your departure, send in your card and I will give you an audience at once." I met President Diaz, many times during my

stay after this, sometimes with the United States minister, and I always found him the courteous elegant gentleman that he was when I first met him. Chief Engineer Harris finished his business with the government authorities in about six weeks after our arrival, and returned to San Diego, but I was detained there for nearly three months before I succeeded in securing the Concession which was a very liberal one, giving the Mount Tecarte Land and Water Company the right to build a portion of the Maron Dam South of the boundary line, as the line between the United States and Mexico ran almost directly through the center of the reservoir site. The aqueduct as proposed leading from this reservoir to the Otay Mesa crossed and recrossed the boundary line several times; this was because the line of the aqueduct was forced to pass down through a deep crooked precipitous canyon. All the material of every description that would be needed in the construction of this reservoir and the aqueduct to the Otay Mesa, any other lateral conduit or ditch extending on to and over any lands, or into any town or city in Lower California was to be admitted free of duty and importation tax. This Concession was said to be by those best informed on such matters the most liberal Concession ever granted to any Corporation by the Mexican Government. In my opinion it is the very best and most valuable asset the Southern California Mountain Water Company, the assignee of the Mount Tecarte Land and Water Company, has at this time, but they do not know its great value. There is a large acreage of the most fertile and most productive soil on the Mexican side of the boundary line and one or two towns

that could be supplied with gravity water from this branch of their water system.

Respectfully yours

D. O. McCARTHY

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There is no question but that Mr. McCarty was a man of vision. He was one of the organizers, directors and secretary of the original San Diego Water Company organized in 1873. The first corporation to furnish water to the City of San Diego.

Mr. McCarty was not successful in financing and completing the project. E. S. Babcock later acquired his holdings but the fact remains that Mr. McCarty lived to see his dream come true.

Mr. McCarty had remarkable vision along engineering lines and he had imagination beyond it all. He started his work with practically no money, having supreme confidence that he would succeed and believed that San Diego had a future. It has well been said "It is a man with vision that builds empires and moves the world." Dreams come true for those who know how to dream.

Mr. McCarty's interest passed from Babcock to the City, ~~via~~ but he continued to manage the ~~San Diego Vidette~~, a daily newspaper for some time, cooperating with Babcock.

Mr. McCarty, after selling to Babcock, later moved to Los Angeles where he passed away on the 13th of August, 1919. I loved the old man. I secured a good deal of information from him on the early history of San Diego. On April 24th, before he died he wrote me the following letter.

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E. S. Babcock was a human dynamo. I had personal contact with him from 1892 to the date of his death. He too had dreams and saw some of them come true. I cannot pay too great a tribute to him and his perseverance and determination to win. He was a big ~~factor~~ factor in business and politics for over 40 years. As a manager and part owner of the Coronado Hotel with Story and otherw and later Spreckels, Babcock dominated the water situation as President of the San Diego Water Company for many years.

His defeat by Sefton for the control of the San Diego Flume Company embittered him. You will hear more about Babcock later.

Soon after acquiring McCarty's interest, Babcock offered it to the City of San Diego for the sum of \$600,000. Babcock ran excursions taking business men out to view the Morena, Barrett and Otay Damsites and at one time it looked as if his sale to the City of the reservoir lands, damsites and water rights would go thru.

In another chapter is described Grant and Puterbaugh's offer in 1895 to furnish 1000 inches of water from the San Luis Rey project then known as Warners Dam.

Babcock surely killed the Grant-Puterbaugh project but in so doing he killed his own as well. It was Babcock who got Grant to agree to a private conference with the city council. Babcock and Hardy controlled a large majority of the councilmen and thru Babcock's influence they out-voted Grant's propostion 4 or 5 to 1 and Grant was forced to withdraw his offer.

Grant later ~~was found out~~ ^{learned} that Babcock and Hardy had the cards stacked against him and that he never had any show from the beginning.

It is interesting to read a letter of March 1st, 1895 from Grant to Babcock on this subject, the original of which is in my possession.

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"1618 Ash Street, San Diego, Calif.
March 1st, '95

"Dear Sir: I answered your last letter but find said ~~my~~ answer lying hidden on my table.

Your intention was to have the Mt. Tecarte proposition accepted by the committee

The proposition of Babcock and Grant were never again offered to the city until early in the 19th century and Babcock and Grant were bitter enemies thereafter for life.

Babcock tackled his problems with genius and marvelous ability. He was not a rich man but used his brains and certainly accomplished things.

In 1895 he sold a half interest in the Mt. Tecate Water Project to John D. Spreckels and for many years they were associated together in this project under the name of the Southern California Mountain Water Company. The water from this system never reached San Diego until the year 1906.

Babcock, about 1890, went on a tour of the eastern cities and to London in search of capital to invest in San Diego and particularly in the development of water.

About 1894 the Mt. Tecate Water Company made an offer to sell to San Diego a thousand miner's inches of water for \$1,500,000 with an option to purchase the system in 40 years for \$3,000,000. Babcock failed to put this deal thru on account of large financial interests including J. W. Sefton's opposition.

In 1895 John D. Spreckels began to take an active part in attempting to sell water to the City of San Diego.

The tie up between John D. Spreckels and Mr. Babcock was a most momentous one for the City of San Diego. Mr. Spreckels had the money, Mr. Babcock the energy and for 30 years or more thereafter John D. Spreckels dominated this city as no one man ever dominated any city in Southern California.

I have many favorable and a few unfavorable things to say a little later on about Mr. Spreckels but there is no question about it, without Mr. Spreckels financial ability the Southern California Mountain Water Company's system would not be developed

today. We owe thanks to Mr. J. D. Spreckels and his brother, A. B. Spreckels, for many other public improvements such as the San Diego Electric Railway, Coronado Ferry, Coronado Hotel, Spreckels Theatre and many splendid buildings including the San Diego Hotel, Golden West Hotel, Union Building, Bank of America Building and last but by no means least, the splendid goft of the out door organ in Balboa Park.

[HARRIS, LOW] *CSW*

Los Angeles, California,
April 24 1919.

Edward Fletcher, Esq.,
920 Eighth Street,
San Diego, Cal.

My dear Mr. Fletcher:-

After the final conclusion of our water company to obtain the water for San Diego from the San Diego river, the first thing to do was to have a survey made and ascertain what the cost would be. Looking up a competent hydraulic engineer and doing the work required consumed over a month. After the report of the engineer was made of the cost of the work, our associates learned before they could proceed further with the enterprise more money than was then in the treasury would have to be obtained.

(7) The Board of Directors, after several meetings, finally decided to sell stock in a sufficient amount to replenish the treasury with the money necessary to complete the contemplated work. After a campaign of strenuous effort of all of the stockholders for several months, it was found impossible to sell the stock at any reasonable price without giving the new purchaser the controlling interest; this we decided reluctantly to do; consequently this forced a re-organization of the company before the work at the San Diego river could be commenced. The new management, in order to save money, opened a well for the big pump, but a short distance below the old slaughterhouse on the San Diego river, against the protest of the pioneer stockholders, and the citizens of San Diego. However, the work went on against this protest and the pioneer enterprise of supplying the city of San Diego with water was rapidly completed.

T After using this water about one year, the people learned that the water obtained from a well so near a slaughterhouse was a menace to the general health of the city. The State Board of Health was asked to analyse the water and pass upon the propriety of its use as drinking water by the people. The State Board of Health were unanimous in the condemnation of the use of this water, or of water obtained from any locality so near below a slaughterhouse on any stream.

7 The Board of City Trustees of the City at once compelled the water company to discontinue supplying the people of the city with water obtained from the bed of the San Diego river below the slaughterhouse. This action forced the San Diego Company to sink a new well at a considerable distance above the Slaughterhouse.

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The new well, with a new distributing reservoir built at the highest point on the South bluff of the river was soon completed, and when the pipe connection was made with the city system, the people were supplied with pure river water satisfactory to the Board of Health for the time. This pumping system from the San Diego river furnished the people of San Diego with a sufficient amount of water for a few years, but the population increased so rapidly other arrangements had to be made for an additional increased supply.

The Flume Irrigation Company, then in course of construction, was expected to furnish an additional supply of water to the San Diego Water Company when it reached the Cajon Valley, and when it was completed to that point, a contract was made at once to take all surplus water of the Flume Company, not required for irrigating purposes. At this time I was engaged in examining the drainage of the Cottonwood Creek for the purpose of obtaining irrigating water for the Otay Mesa where I owned and controlled a large body of land. During the progress of this examination, I met an old friend whom I knew in San Francisco when I was engaged in the newspaper business. He too had been a publisher and writer, and in discussing with him the future possibilities of San Diego, I told him that I was then engaged in a small irrigating water scheme. He at once became enthusiastic over the water proposition, not only for the city of San Diego, but the County of San Diego, and wanted to know why I did not enlarge my scheme of irrigation. I replied that I did not have the money, nor could it be obtained in San Diego for that purpose, although it was the most important. He, without hesitation, proposed to raise all the money required if I would join him and organize and incorporate a land and water company with capital stock in a sufficient amount to carry through a big scheme. After a week's consultation, we decided to incorporate the company with a capital stock of \$3,500,000 and place the shares at \$10 each; this would give us 350,000 shares of stock which could be sold at once to reliable persons, well known to us. We lost no time and on February 16th, 1888 we incorporated the "Mount Tecarte Land and Water Company" with the above named capital stock; making W. H. Barton president, the above mentioned gentleman, and myself superintendent. We had already discussed the enterprise with Lew B. Harris, Jr., an eminent hydraulic engineer, with long experience at the head of the water system of the Southern Pacific Railroad Company. The Board of Directors at their first meeting elected Mr. Harris by unanimous vote chief engineer of the Mount Tecarte Land and Water Company, and directed him to proceed without delay to organize a corps of assistants and make a thorough survey of our proposed water enterprise with the cost of the two lines of the aqueduct from source to distributing dams. This work required eight months, the routes were very rough and difficult, but the survey was very thoroughly and scientifically performed and very creditable to Mr. Harris.

Following is the chief engineer's report.

San Francisco, October 11, 1889.

President and Directors Mt. Tecarte Land and Water Co.,

Gentlemen:- As it was found that the plan of carrying water through Mexican Territory in order to distribute it upon American Territory met with some objections, owing to the prevailing idea that our construction in Mexican Territory would not be entirely under American jurisdiction, it was thought best in constructing our upper system to try and eliminate this objectionable feature instead of combating it. This, and the fact that a large number of landholders whose lands lay upon the new route signified a willingness to subsidize the Company by giving land in lieu of money for water rights, induced the Company to investigate the feasibility of conveying the water of the Cottonwood Creek and its tributaries over and upon the lands lying between that stream and the City of San Diego.

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Spring Valley, and the Mesa immediately east and south of San Diego, about 35,000 acres. The second ditch line will pass to the south of San Miguel Mountain and irrigate a portion of the Jamul grant, the Janal grant, the Otay grant, and all that portion of the National grant that lies above the Sweetwater system, about 35,000 acres. The third ditch line will pass down the south side of Jamul creek, skirting the San Ysidro Mountain and terminate at the distributing reservoir, now being constructed at the head of the Otay mesa, and which will supply the Otay mesa, and all that section lying to the westward of the Otay mesa, including Oneonta, South San Diego and Tia Juana, about 25,000 acres. At the west end of the Otay mesa we have a fall we can utilize of three hundred ft. The power that can be developed at this point will amount to about 1,500 horse power, and the water can afterwards be utilized for irrigation without any waste or any detrimental effect upon the water.

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Very Respectfully,
 B
 LEW HARRIS, Jr.,
 Chief Engineer.

November
Ninth
1922

file 150-4

Capt. Lew Harris,
Fallbrook, Calif.

My dear Captain Harris:

It might be possible that I could be of service to the Fallbrook community a little later on, and I understand you have surveys completed. Do you care to turn these surveys over to me? Also reports? If anything is done I will see that you get remuneration for any service rendered.

Kindly treat this confidential and let me know if you care to cooperate with me.

Yours sincerely,

EF:KLM

150-4
Fallbrook Nov. 19th 1922

Col. Ed Fletcher:

My dear Colonel

Yours of the 9th inst. just received and I am on the eve of starting for Fresno, to be gone about two weeks.

I will gladly cooperate with you as far as I am able in any matter that pertains to the improvement of this section or for that matter, any other portion of our County.

When I return, we will go over what I have and you can make use of whatever I have that will be of help.

Your communications will be treated by me confidentially, as requested

Yours truly

Lew Harris.

Ed Fletcher Papers

1870-1955

MSS.81

Box: 10 Folder: 1

General Correspondence - Harris, Lewis B.



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