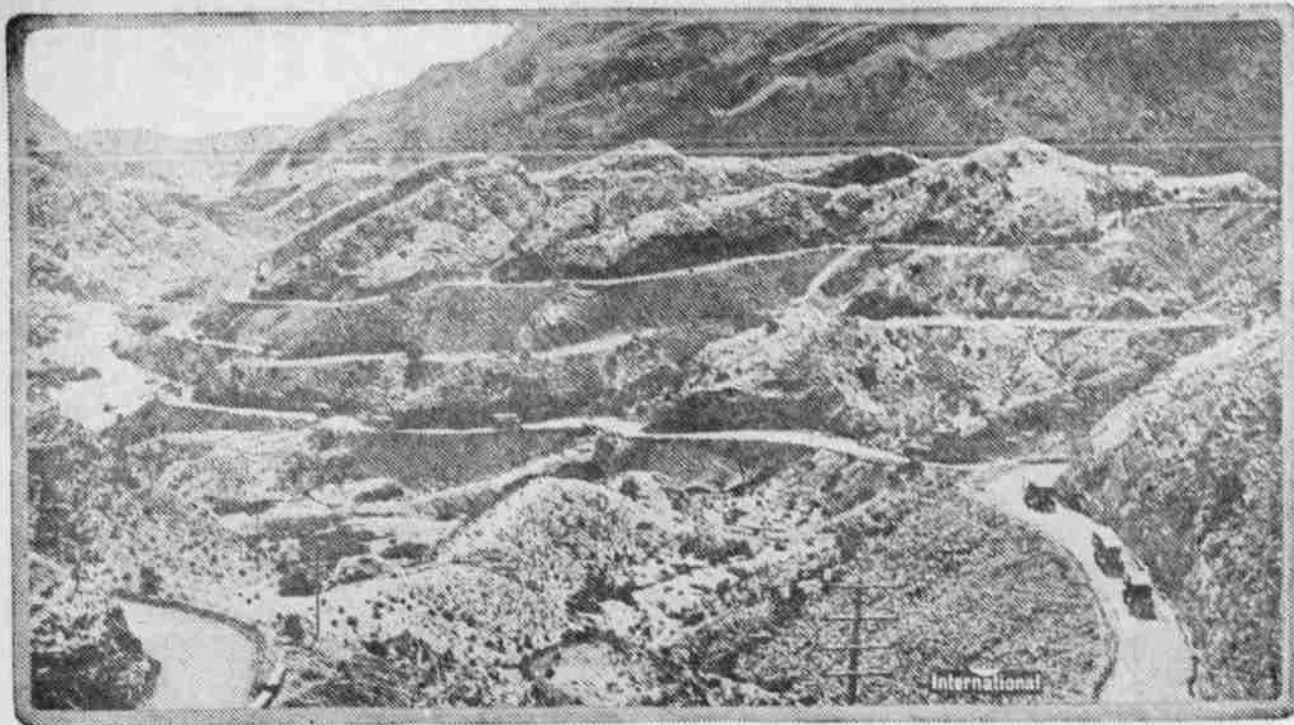


REMARKABLE ROAD CONSTRUCTION IN KHYBER PASS



View of the roads ascending the Khyber pass, looking toward the plains of India. The upper road is the old camel caravan road leading into Afghanistan. The lower road was specially constructed last year by British engineers for motor transport.

HISTORY TOLD
IN OLD LETTERS

Jews of the 15th Century Alone
Had Trading Posts in North-
west Africa.

INTERESTING DISCOVERY MADE

Africa Loomed Larger in the Middle
Ages Than Modern Historians
Have Realized—Jews Forced
Out of Spain.

Washington.—"Lava preserved the secrets of Roman civilization in Pompeii; tombs protected the records of ancient Egypt's culture; and now there is prospect that some long neglected letters may reveal one of the most fascinating chapters in the historic trail of the Jewish people, and incidentally show that Africa loomed larger in the middle ages than modern historians have realized."

With this introduction the National Geographic society in a bulletin makes the first announcement in this country of a remarkable documentary discovery made by Charles de la Ronciere, librarian of the National Library in France.

"Hitherto," says the librarian, Africa has figured not at all in medieval history. It still was a 'dark continent' when Stanley and Livingstone penetrated it less than a century ago. Yet it would seem the Jews of the fifteenth century had trading posts in north-west Africa and carried on a vast commerce with the natives from the Sahara to the Atlantic and from Algeria to the Niger.

Medieval Natives of Africa.
"These native peoples, who finally resisted the inroads of Christian, Jew and Mohammedan, possessed sources of wealth in grain and gold. Some tribes lived in rock salt houses. Actual history in one case parallels the legendary account of the defense of Troy. Primitive religions and strange customs flourished in common with a civilization advanced enough to take accurate census of cities.

"Antonia Malfante, a Genoese citizen, traversed this region and wrote his descriptive letters in 1:47, from Timbuktu and Touat. Timbuktu was the Chicago of the West African plains, and Touat the center of the camel caravan traffic that exchanged the wheat and barley of Egypt for the powdered gold of Timbuktu and the precious salt from Teghazza.

"All the places visited by Malfante

were so well known to the Jews of his time that they were listed in a Catalan atlas prepared three-quarters of a century earlier by Charles V. according to M. Ronciere. But shortly after Malfante's visit the Jews were driven out of Spain, and since the Jews were the only ones in Europe who knew of the Nigeria country, and apparently permitted no Christians to enter there except Malfante, the Jewish knowledge was lost to Europe. Not until Dr. Gerhard Rohlfs began his explorations in Algeria and Morocco in 1880 did the rest of the world form a contact with the extensive regions of Malfante's travels.

"Landing at a point west of Algiers, Malfante worked his way south to Touat, which Rohlfs believed himself to have been the first European to visit. Yet Malfante dated his first letter from there four centuries earlier.

An African Commercial Center.
"Touat was an oasis, containing from 150 to 200 villages, which together formed a vast commercial center. Each had a chief. Travelers became the guests of these chiefs, and Malfante reported their protection superior to that in states like Tiemcen and Tunis. One of these towns was Tamentit, now a decayed village, whose people still recall the Jewish epoch. Arabian invaders earlier had

robbed the Jews, who were masters of the Sahara and whose empire extended south to the Niger. Tamentit, Malfante wrote, sheltered both Jews and Mohammedans, who lived in harmony.

"The native negroes valued copper highly, Malfante stated, and used it for money.

"Pushing on to Timbuktu, Malfante's host was the brother of a captain of desert industry, a man of great wealth and possessed of trade information concerning all of North Africa. From him Malfante learned of such flourishing places as Teghazza, famous for its salt mines and unique for its architecture. The houses were made of rock salt. Malfante noted that it never rained there or the houses would have melted away.

"To the south of the Mohammedan kingdom were many states inhabited solely by savages. One of these tribes worshipped a mirror, believing that in the reflection of their faces they saw a deity.

To Dumb Forgetfulness a Prey.
Greenfield, Ind.—Caleb Moncrief, farmer, has always denied that he is absent-minded, but he has a taxi bill as proof to the contrary. After completing his business here, Moncrief drove home, forgetting he had taken his wife to town with him. She followed in a taxi.

Is Postmaster at 13.
La Center, Ky.—Zelma Peale, aged 13, acting postmaster here, is believed to be the youngest person to hold down the job in the United States. He is serving, pending the arrival of his brother's commission.

Height Governs
Speed In the Air

Geography of the Atmosphere
Outlined by a Practical
Aeronaut.

CONSISTS OF TWO LAYERS

Greatest Discovery Yet Made in Exploring the Air—Attain Speed of 200 Miles an Hour at Higher Levels.

Washington.—In his spectacular flight establishing a new aviation altitude record Maj. Rudolph W. Schroeder found trade winds of 200 miles an hour velocity far above the clouds, press dispatches state. The Dayton (O.) test pilot merely reported one of the new phenomena resulting from a study of the geography of the air, stimulated by aerial travel, according to a bulletin of the National Geographic society.

"While the chemistry and physics of the atmosphere are understood, the geography of the air is still practically unknown," says Alexander McAde in a communication to the society.

Great Rivers of Air.
"We are aware that there are well marked areas, zones and levels in this inverted bowl; and, though we may not see them, there are mighty rivers, far exceeding any of the rivers of earth in volume and speed, rushing on for miles and miles, flowing vertically as well as horizontally. There are vast calm areas and stagnant pools; also choppy seas and regions of great turbulence.

"We are learning today that there are various layers in the air, which must be explored and studied before airplanes can travel in safety. In flying, men will use only the lower strata, the cloud levels. Above all clouds are far-reaching heights, which, too, must be explored, not by plane and dirigible, but by the sounding balloon of the aerographer.

"One might say offhand that there could be no geography of the air; for there are no continents, oceans or visible geographical features in this 'inverted bowl' which we will call the sky. Do we not look clean through the atmosphere up into the heavens and, except for passing clouds, do we

not know that there is nothing to be seen?

"If the density of the atmosphere remained constant it could all be compressed into a layer about five miles thick. In that case the highest mountain peaks would stand in space, piercing the so called homogeneous atmosphere. But the density decreases with elevation, and when the aviator reaches an elevation of 10,000 meters he is in a medium which is only about one-third as dense as at the ground. There are no clouds above this level.

"The greatest discovery yet made in exploring the air is that the atmosphere consists of two great layers—the lower extending from sea level up to 10,000 meters, in which there is a steady fall of temperature with elevation. This is called the troposphere. Above this there is no fall and up to 20,000 meters a slight rise. The upper layer is known as the stratosphere.

Matter of Height and Speed.
"It is actually possible today for an airplane to rise from the ground to the bottom of the stratosphere, say about six miles, in one hour. If we want to explore somewhat higher, say twenty miles, we install light instruments on a sounding balloon.

"The intrepid aviator who tries to force his way at high speed against an adverse wind meets only with increasing resistance. But when the wind favors, then the winged airman spins the slow fellow creeping on wheels below. With accelerated speed he passes over moor, mountain or sea; and, if need be, vaults over the clouds.

"If the captain of the winged ship is not content with his speed he has only to climb to upper levels, where the flow of the air increases to thirty and even forty meters per second, and in this stream he would move along with a speed relative to the earth of 200 miles an hour.

"These are not extreme values. In a stiff northwester which the writer experienced some years back the wind blew seventy-two consecutive hours 565,000 meters, which is nearly thirty meters per second. This is equivalent to going 4,700 miles in three days, or twice the distance from Labrador to Ireland. The highest speed of the wind for any single hour was 164,000 meters, 102 miles. For a period of about fifteen minutes the rate was 120 miles an hour."

The Cow Puncher

Copyright by Harper & Brothers

CHAPTER IX.—Continued.

Back in Coward's office, while the agreement was being drawn, Irene was possessed of a consuming desire to consult with Dave Elden. She was uneasy about this transaction in which her mother proposed so precipitately to invest the greater part of their little fortune. "I think I would hesitate, mother," she cried. "If you buy this house we will have only a few thousand dollars left. Your health may demand other expenditures."

"My health was never better," Mrs. Hardy interrupted. "And I'm not going to miss a chance like this, health or no health. You have heard Mr. Coward tell how many people have grown wealthy buying property and selling it again. And I will sell it again—when I get my price."

"It is as your mother says," Coward interjected. "There are very rapid increases in value. I would not

be surprised if you should be offered an advance of ten thousand dollars on this place before fall."

"There must be an end somewhere," Irene murmured, rather weakly. But her mother was writing a check. "I shall give you five thousand dollars now," she said, "and the balance when you give me the deed, or whatever it is. That is the proper way, isn't it?" "Well, it's done," said Irene with an uneasy laugh which her excitement pitched a little higher than she had intended.

In an adjoining room Dave Elden heard that laugh, and it stirred some remembrance in him. Instantly he connected it with Irene Hardy. The truth was Irene Hardy had been in the background of his mind during every waking hour since Bert Morrison had dropped her bombshell upon him. And now that voice—

Dave had no plan. He simply walked into Coward's office. His eye took in the little group and the mind behind caught something of its portent. Irene's beauty! What a quickening of the pulses was his as he saw in this splendid woman the girl who had stirred and returned his youthful passion! But Dave had poise. He walked straight to Irene.

"I heard your voice," he said, in quiet tones that gave no hint of the emotion beneath. "I am very glad to see you again." He took the hand which she extended, in a firm, warm grasp; there was nothing in it, as Irene protested to herself, that was more than firm and warm, but it set her finger tips a-tingle.

"My mother, Mr. Elden," she managed to say, and she hoped her voice was as well controlled as his had been. Mrs. Hardy looked on the clean-built young man with the dark eyes and the brown, smooth face, but the name suggested nothing. "You remember," Irene went on, "I told you of Mr. Elden. It was at his ranch we stayed when father was hurt."

"But I thought he was a cow puncher!" exclaimed Mrs. Hardy. "Times change quickly in the West, madam," said Dave. "Most of our business men—at least, those bred in the country—have thrown a lasso in their day. You should hear them brag of their steer-roping yet in the Rancimen's club."

Irene's eyes danced. Dave had already turned the tables; where her mother had implied contempt he had set up a note of pride.

"Oh, I suppose," said his mother, for lack of a better answer. "Every thing is so absurd in the West. But you were good to my daughter, and to poor, dear Andrew. If only he had been spared. Women are so unused to these business responsibilities, Mr. Coward. It is fortunate there are a few reliable firms upon which we can lean in our inexperience."

"Mother has bought a house," Irene explained to Dave. "We thought this was a safe place to come"—A look on Elden's face caused her to pause. "Why, what is wrong?" she said.

Dave looked at Coward, at Mrs. Hardy, and at Irene. He was instantly aware that Coward had "stung" them. It was common knowledge in inside circles that the bottom was going out. The firm of Coward &

Elden had been scurrying for cover, as quietly and secretly as possible, to avoid alarming the public, but scurrying for cover, nevertheless. And Dave had acquiesced in that policy. His position was extremely difficult.

"I don't think I would be in a hurry to buy," he said, slowly turning his eyes on his partner. "You would perhaps be wiser to rent a home for a while. Rents are becoming easier."

"But I have bought," said Mrs. Hardy, and there was triumph rather than regret in her voice. "I have paid my deposit."

"It is the policy of this firm," Elden continued, "not to force or take advantage of hurried decisions. The fact that you have already made a deposit does not alter that policy. I think I may speak for my partner and the firm when I say that your deposit will be held to your credit for thirty days, during which time it will constitute an option on the property which you have selected. If, at the end of that time, you are still of your present mind, the transaction can go through as now planned; and if you have changed your mind your deposit will be returned."

Coward shifted under Dave's direct eye. He preferred to look at Mrs. Hardy. "What Mr. Elden has told you about the policy of the firm is quite true," he managed to say. "But, as it happens, this transaction is not with Coward & Elden, but with me personally. I find it necessary to dispose of the property which I have just sold to you at such an exceptional price—he was looking at Mrs. Hardy—and naturally I cannot run a chance of having my plans overturned by any possible change of mind on your part."

"I am entirely satisfied," said Mrs. Hardy. "The fact that Mr. Elden wants to get the property back makes me more satisfied," she added, with the peculiarly irritating laugh of a woman who thinks she is extraordinarily shrewd and is only very silly.

"The agreement is signed?" said Dave. He walked to the desk and picked up the documents, and the check that lay upon them. His eye ran down the familiar contract. "This agreement is in the name of Coward & Elden," he said. "This check is payable to Coward & Elden."

Coward's livid face had become white, and it was with difficulty he controlled his anger. "They are all printed that way," he explained. "I am going to have them indorsed over to me."

"You are not," said Dave. "You are charging this woman twenty-five thousand dollars for a house that won't bring ten thousand. The firm of Coward & Elden will have nothing to do with that transaction. It won't even indorse it over."

"Well, if that doesn't beat all!" Mrs. Hardy ejaculated. "Are all cow punchers so discourteous?"

"I mean no discourtesy," said Dave. "If my behavior has seemed abrupt, I assure you I have only sought to serve Doctor Hardy's widow and her daughter."

"It is a peculiar service," Mrs. Hardy answered, curtly.

"I can only apologize for my partner's behavior," said Coward. "It need not, however, affect the transaction in the slightest degree. A new agreement will be drawn at once—an agreement in which the firm of Coward & Elden will not be concerned."

"That will be more satisfactory," said Mrs. Hardy. She looked at the remark for Dave's ears, but he had moved to another corner of the room and was conversing in low tones with Irene.

"I am sorry I had to make your mother's acquaintance under circumstances which, I fear, she will not even try to understand," he had said to Irene.

"Oh, Dave—Mr. Elden, I mean—that is—you don't know how proud you don't know how much of a man you made me feel you are," she was flushed and excited. "Perhaps I shouldn't talk like this. Perhaps—"

"It all depends on one thing," Dave interrupted.

"What is that?"

"It all depends on whether we are Miss Hardy and Mr. Elden or whether we are still Irene and Dave."

Her bright eyes had fallen to the floor and he could see the tremor of her fingers as they rested on the back of a chair. She did not answer him directly. But in a moment she spoke.

"Mother will buy the house from Mr. Coward," she said. "She is like that. And when we are settled up here, she will come and see me, won't you—Dave?"

When the Hardys had gone Coward turned to Elden. "We had better try and find out where we stand," he said, trying to speak dispassionately, but there was a tremor in his voice.

"I agree," returned Elden, who had no desire to evade the issue. "Do you consider it fair to select inexperienced women for your victims?"

Coward made a deprecating gesture. "There is nothing to be gained

by quarrelling, Dave," he said. "Let us get at the facts. When we agreed as to facts, then we may as to procedure."

"Shoot," said Dave. He stood with his shoulder toward Coward, waiting the dusk settling about the foot of the city.

"I think," said Coward, "we agree that the boom is over. We have done well, on paper. The thing now is to convert our paper into cash."

Dave turned about. "You know don't claim to be any great moralizer," he said, "and I have no moral for a gambler who deliberately stings and gets stung. Consequently I am not troubled with any self-pity, or any pity for you, and if you can get rid of our holdings to other gamblers I have nothing to say. But if it is to be loaded onto women who are investing the little savings of their lives—women like Bert Morrison and his Hardy—then I am going to have a good deal to say." Dave went on with rising heat: "If business has to be done that way, then I say to you—business!"

"I asked you not to quarrel," Coward returned, with remarkable composure. "I suggested that we get at the facts. Now, granting that the boom is over, where do we stand? We are rated as millionaires, but we haven't a thousand dollars in the bank at this moment. This"—he lifted Mrs. Hardy's check—"would have been over next payday, but you say my firm must have nothing to do with it. And which is the more immoral—do you have spoken of morality—do you expect labor from clerks whom you pay or to sell property to women who say they want it and are satisfied with the price? We have literally the sands of unsettled contracts. I must keep our staff together. We have debts to pay, and we owe it to our creditors to make collections so that we can pay those debts, and we can make collections without a staff. On the property we are now holding the taxes alone will amount to ten thousand dollars a year. And if it is up to you, if we are going to smother sentiment, who's going to pay the taxes?"

"I know; I know," said Dave, who anger over the treatment of the Hardys was already subsiding. "We are in the grip of the system. Still, war they don't usually kill women and noncombatants. That is the point I'm trying to make. I've no sentiment about others who are in the game, we are. If you limit your operations to them—"

"The trouble is, you can't. They're wise. Most of them have already moved on. A few firms, like ourselves, will stay and try to fight it out; but at least, to close up with a clean sheet if we must close up. But we can wind up a business without selling the stock on hand, and to whom are we to sell if not to people who want it? It is what you seem to object to."

"You place me in rather an uncomfortable position," Dave protested. "What I object to is taking the life savings of people—people of moderate circumstances, mainly—in exchange for property which we know to be worth nothing."

"Yet you admit that we must close up, don't you?"

"Yes, I suppose so."

"And there's no other way," Dave said Coward, rising and placing his arm on his partner's shoulder. "I sympathize with your point of view, my boy, it's pure sentiment, and sentiment has no place in business."

Dave dropped the subject. It appeared to be nothing to gain by pursuing it further. They were in the grip of a system—a system which found them poor, had suddenly made them wealthy, and now, with suddenness, threatened to make them poor again. It was like war—kill or be killed.

(TO BE CONTINUED.)

Cattle Eat "Rubber Cakes."
Experiments at Singapore have shown that a feeding cake for cattle and other stock can be produced from the residue of Para rubber seed and the extraction of an oil comparing favorably with linseed oil.

MAJOR AT OLD JOB



Maj. J. W. J. Miller, D. S. O., C. M. C. of Hall cottage, Greenstead, Essex, England, who has returned to his old job as a cowman which he left when he joined the army in 1907.

In 1914 Major Miller went to France, won the D. C. M. at Neuve Chapelle and he rose to the rank of major and won the D. S. O. He is now once more the cowman to Mr. E. S. Schiwar, a farmer who served as a private during the war.