



Correspondence

May 27, 1910
to
October 20, 1925

Palos Mine

Memorandum for draft of letter

Mr. Drennen,
President, Palos Coal & Coke Co.,
C/o Drennen & Co.,
Dry Goods Merchants,
Birmingham, Alabama.

Not sent
7/27
8-33

Dear Sir:

The condition of the Palos Mine has been brought to my attention by our mining engineer Mr. G. S. Rice. It is his understanding that your operating department proposes resumption of the work as soon as permission from the State Inspector is obtained.

It is not my purpose to in any way reflect upon the State Inspection Department or in any way make public the conditions, but I desire to bring to your attention some certain features which I regard as very serious and require remedying before operations are resumed.

Mr. Rice and Mr. Rutledge in their investigations up to and including Tuesday of this week found that the area between the fourth right and sixth right entry is not being ventilated sufficiently although the fan is said to be running at about its normal speed and other conditions are about as they have been in the past. They found that this large area was pervaded throughout by gas sufficient

to obtain a "cap" in Wolf's safety lamp of from one-fourth to one-half inch, thus indicating from one to three per cent of methane throughout the area in question, and that at the face near feeders gas in explosive quantities would be found.

These Points ^{at the face} were not tested inasmuch as it would have been extremely dangerous to have placed safety lamps ~~with~~ there although the *was* feeders could be heard.

It is needless to say that this constitutes a tremendous danger as a naked lamp igniting gas at the face would start an explosion which supplemented by the large amount of fine coal dust throughout the mine would cause a repetition of the former disaster. Even if safety lamps are used there would still be danger as such lamps have a limit in the presence of an explosive mixture. Moreover, the permissible explosives while tested in the presence of a certain amount of methane and dust will not prevent ignition when in the presence of an explosive mixture as they are not intended to be used under such conditions. Further, more or less dynamite ~~is~~ used in your mine in shooting down rock between the layers of coal or what is termed the "middle man." Sticks of dynamite were found in several

places in the mine. Dynamite will cause ignition of either gas or coal dust. With these things in view it is almost needless to say that I consider the conditions extremely dangerous.

I believe from what Mr. Rice says that you have a good fire boss in your Mr. Steve O'Brien although he did not at first recognize the very faintly colored "cap" ^{that had} ~~which showed this~~ "cap" having a different appearance from what he had been used to.

In this connection, Mr. Rice brings my attention that your safety lamps, mostly of the Clanny type, are neither suited for work in gas mixtures nor are they in good condition. The few Wolf lamps which you have are also in very bad condition.

Taking all these conditions into account it is the opinion of Mr. Rice that it will be unsafe to resume work until a material change has been made in the area in question. It is his opinion, ~~that~~ after careful examination of the whole mine and a review of the evidence, that the explosion originated in one of the rooms in the Sixth Right and was probably due to an ignited lamp having ~~been~~ set off the gas which may or may not have resulted from a fall of rock. Such falls

could

are liable to recur at any time and particularly at the present when the roof has been shaken by the explosion.

He suggests that conditions might be improved by setting up the second fan which you now have at hand in the adjacent or parallel opening to the one from which the present fan draws and have both of them worked together. Second, below the **Second Right Entry**, and possibly below the **First Right**, to carry the intake air both down the main slope and the air course by arranging the brattices suitably and use both these entries and the intake as far as the **Sixth Right**, then split the air leading one half at once through the **Sixth Right** and thence through the open rooms to the **Fourth Right** thence through the other open rooms to the **Second Right** and if there is connection to the **First Right** through such rooms on to the **First Right** whence it would return ~~to~~ ^{through} the air course to the two fans.

The other split of the air would pass down to the **Seventh Right** thence to the face of the **Main Slope** and up through the old rooms to the **Fifth Left** and from there up through other old rooms to the **Third** and then to the **Second**. From there it would pass by the overcast which already exists over the **Main Slope** to the air

course joining the other return split and thence to the fans. This would form the mine into two main splits instead of one as at present. It would, moreover, furnish fresh air and in larger quantity to the area where most needed between the Sixth Right and the Fourth Right. With this system on the left side there could be further slitting of air if it seemed desirable. The

The expense involved in this would be the setting up of the new fan which should be done in any case and as that one is in first class condition it would give you one fan to go on in case of a breakdown or shut down for temporary repairs; and the expense of repairing the overcast which has not been used for some time, and the expense of putting up a number of doors.

To supplement this the slope from the mouth to a point below the overcast should be widened so as to lessen the friction of the air in the present small passage and which is further restricted when a trip of cars is passing through same.

In our opinion this plan is entirely feasible and would not take a long time to carry out. In the opinion of our mining engineers should be done except the widening of the slope before the mine resumes

operations. The widening of the slope could be carried on during operations on the night shift.

I would suggest that if you are not satisfied that the conditions reported by our mining engineers are as bad as they indicate or that their remedy is not on good lines, you call privately a commission of the other operators to examine the mine and see what should be done. We have no doubt that ~~it~~^{they} will be glad to render this service, inasmuch as the miners of the district have generally been rendered uneasy and they will undoubtedly be glad to do anything that can be done to restore confidence. As stated previously, this letter is entirely confidential and you need not fear that publicity will be given from our side.

Very respectfully,

Chief technologist.

ANALYSES OF SAMPLES OF AIR AND DUST
PALOS MINE, PALOS COAL & COKE CO., PALOS, ALA.
MAY 15, 1910.

(Sampled by J. J. Rutledge)

Con- tainer: No.	Lab. No.	Location of sample	Material	Analysis				Quantity of air
				CO ₂	O ₂	CH ₄	H ₂	
8673	10524	Return air at fan 9 am	Air	0.12	20.50	0.43	78.95	30,000
8672	10523	Return air at fan 4 pm	Air	0.05	20.50	0.45	79.00	30,000
8671	10522	6th Right 5-16-10	Air	0.30	20.10	1.96	77.64	?

MINE DUST SAMPLES (As received).

				H ₂ O; Vol. % F.C.; Ash :			
20229	10510	Palos mine	Road dust	3.98	24.78	60.52	10.72
20229	10511	do.	Dust	4.42	25.60	59.29	12.69
Bottle	10564	do.	Dust	4.19	15.25	62.59	19.99
20217	10567	do.	Coked dust	1.56	18.20	62.62	17.62
20225	10569	do.	Coke	2.95	17.67	65.62	15.78
20240	10571	do.	Coke	2.44	18.46	61.73	17.37
20254	10572	do.	Coke, road dust	2.52	16.04	67.08	14.36

*Abstracted
9/27/15*

ANALYSES OF SAMPLES OF AIR AND DUST
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MAY 15, 1910.

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				CO 2	O 2	CH 4	N 2	
8673	10524	Return air at fan 9 am	Air	0.12	20.50	0.43	78.95	30,000
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MINE DUST SAMPLES (As received).

	H ₂ O	Vol. F	F.C.	Ash	
					:
20229 10510 Palos mine 5-20-10	Road dust	3.98	24.78	60.52	10.72
20339 10511 do. 5-18-10	Dust	4.42	23.60	59.29	12.69
Bottle 10564 do. 5-9-10	Dust	4.19	13.23	62.59	19.99
20317 10567 do. May 1910	Coked dust	1.56	18.20	62.62	17.62
20333 10569 do. 5-18-10	Coke	2.93	17.67	65.62	13.78
20348 10571 do. 5-18-10	Coke	2.44	18.46	61.73	17.37
20354 10572 do. 5-20-10	Coke, road dust	2.52	16.04	67.08	14.36

Palos Mine Explosion
May 5, 1910
Palos Coal & Coke Co.
Palos, Alabama.

CASE: PALOS MINE.

In this mine on May 5, 1910, an explosion occurred resulting in the loss of 83 men inside and one man on the outside of the mine and doing much damage to the underground equipment.

The mine near Palos, Jefferson Co., Alabama, is developed in the Mary Lee coal bed which averages from 5 to 6 feet in thickness and contains a hard shale parting of 1 to 1-1/2 inches near the center. This coal is bituminous, coking, high volatile and belongs geologically in the Mary Lee group, Carboniferous Age, Pottsville Formation. An analysis on the received basis is as follows: Moisture 2.69, volatile matter 25.95, fixed carbon 64.16, ash 7.22, sulphur 0.61.

The coal is mined by pick and is blasted with permissible explosives, but dynamite is used for brushing the roof and for breaking the "middleman" when it is thick. The coal is hard and makes large lumps. At the time of the explosion the mine had seven pairs of right hand entries and six lefts and the advance workings were near the limits of the property lines.

The main entrance to the mine consists of a slope driven in rock, and immediately in front of the slope is the Warrior river which is bridged for the transportation of the mine cars to the tippie across the river.

E.K. W.K., July 10, 1925

The haulage within the mine is done by animals which deliver the cars to a tail rope system which hauls the coal to the outside and to the tippie.

Gas and ventilation:

The workings of the mine liberate explosive gas, methane, and where ventilation is not properly conducted there are accumulations of the gas.

The ventilation of the mine is produced by a mechanically operated fan, exhausting, located at the entrance of one of a pair of entries on the outcrop of the coal. The ventilating current at the time of the explosion was continuous throughout the entire mine.

Moisture:

The main slope which was driven through rock was wet throughout but the mine was dry except for a few local weeps along the main entries. Throughout the mine dry, fine coal dust was much in evidence.

Lighting:

The miners used open flame lamps and the only safety lamps used were those carried by the fire boss which lamps were key locked.

Electricity:

No electric power wires were used in the mine.

Explosion hazard:

Explosive gas, inadequate ventilation, dry fine coal dust, open flame lamps and the use of dynamite, all contribute to conditions favorable to an explosion.

Investigation:

Engineers of the Government reached the scene of this explo-

sion within 2 or 3 hours after its occurrence and were later joined by rescue crews and additional engineers who assisted in the recovery work and the investigation of the mine. In an examination of the mine and noting the action of the explosion, it was observed that the flame of the explosion came out of the main slope and extended to the middle of the bridge over the Warrior river, blistering the paint and setting fire to wooden guard rails on the bridge; that a mail messenger was caught on the bridge and so severely burned that he died shortly and that the mail bag carried by the messenger was partly consumed.

Immediately over the slope entrance was the track of the Southern Railway, supported by heavy sawed timber, and on the outby exposure of these there was found crusts of coked coal dust.

The slope was found to be wet from near its entrance to the foot, but no evidence of heat, charred or coked coal dust, and at the foot of the slope a body was found having a heavy growth of hair, but no evidence of any burning of the hair, clothes or body.

The greater majority of bodies found showed evidence of burns but some gave no such evidence.

In the region embraced along and between the 4th right and 6th right entries there was much evidence of heat in the form of charred and coked dust, and in this region was found the presence of accumulated gas. After the ventilation had been restored as it originally traveled in the mine, it was found that gas was present in the mine atmosphere in this region to the extent of 1 to 3 per cent, and at some unventilated faces the gas was present in explosive proportion.

Origin of explosion:

The conditions found as indication of forces, the presence of charred or coked dust and its position, all indicated that the explosion had originated in the region of the 6th right entry through the ignition of a body of gas and that the presence of dry coal dust propagated the explosion throughout the mine and added to the violence of the initial explosion. An open flame lamp was the most probable source of the gas ignition.

Lessons to be learned from this explosion:

1. That in a mine liberating as, as this was, open flame ^{not} lights should/be used.
2. That more than two splits of the air current should be provided in order to prevent the return from one gassy section being the intake for another section.
3. That a long wet slope through rock does not prevent the passage of the flame of a coal dust explosion where there is a large amount of dry coal dust in parts of the mine adjacent to the wet zone.
4. Under condition 3 there may not be found signs of burning or coked dust through the wet zone, yet there were masses of thick coked dust on the timbers of a railroad trestle crossing over the mouth of the rock slope. The thick coke was on the outby sides of the timber but none on the sides facing the slope.
5. That in a strong flaming coal dust explosion, the flame does not always extend to the floor or walls, as was evidenced by a body found near the foot of the slope having no hairs burned.

F. M. DEBENHAW, President.
E. E. DEBENHAW, Supt.
JAMES MAGOWAN, Mine foreman.

Approved *W. W. Paul* July 10, 1925

Compiled by J. W. Paul,
July 1, 1925.

*Thinking and notes on
in accordance with
notes and records
W. W. Paul*

GWR/ACS

7177

Pittsburgh, Pa., May 27, 1910.

Dr. J. A. Holmes,

Thru Engineer in Charge

Washington, D.C.

My dear Doctor Holmes:

As a memorandum of our conversation, I wish you would send me the blue print plan of the Palos Mine at your earliest convenience.

Yours very truly,

Mining Engineer.

GSR/ACS

43
8-35

Pittsburgh, Pa., May 27, 1910.

Mr. H. M. Wilson,

Thru Engineer in Charge

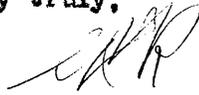
Washington, D.C.

My dear Mr. Wilson:

I am submitting herewith letters received from the Electric Service Supplies Company, and my reply to same. I regret that these did not reach Mr. Clark before his unfortunate accident. However, as I believe the matter is of importance, and as it will take sometime before the methods of making tests, if approved, can be determined, I am sending same directly to you.

The whole system of signalling as to whether dangerous or not is in my opinion of great importance. This was brought out during the recent recovery of the mine at Palos where electric signals and telephones were introduced at an early stage, while there was still gas in the mine. While we are under the general opinion that there is little or no danger from such signals, it would be better if we could have the matter placed beyond question.

Yours very truly,



Mining Engineer.

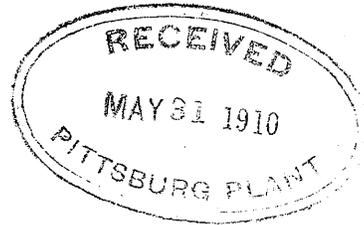
Encls.

7107

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
WASHINGTON

TECHNOLOGIC BRANCH.

REFER TO FILE NO. 524



May 28, 1910.

My dear Mr. Rice:

In reply to your letter of May 27:

I am sending you herewith blue print of the Palos mine; also a reduced tracing of the same. Will you please have a couple of blue prints and lantern slides made of the tracing for the use of this office.

Yours very truly,

H. M. Wilson
A. C. T.
J

Incl

GSR/ACS

8-33
43

Pittsburgh, Pa., June 2, 1910.

Mr. H. M. Wilson,

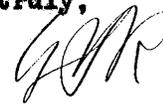
Thru Engineer in Charge

Washington, D.C.

My dear Mr. Wilson:

I am sending to you by accompanying mail two blue prints of the Palos mine plan and also two slides therefrom. I have taken the liberty of revising the sketched map which was sent to me inasmuch as it was based on the sketch I made for Doctor Holmes. The draftsman did not comprehend the matter at all as you will see by a blue print of the original plan sent to me. Both lantern slides which I requested have been sent to you, but I imagine you will not need but one. In that case, I wish you would return one of them here.

Yours very truly,



Mining Engineer.

PMR/U.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
WASHINGTON

TECHNOLOGIC BRANCH.

REFER TO FILE NO. 681

June 2, 1910.



My dear Mr. Rice:

I am in receipt of request from Mr. M. B. Drennen, Superintendent of the Palos Coal & Coke Company, Palos, Alabama, for copies of such analyses of coal as was taken from their mines by Mr. J. J. Rutledge.

As you have this information, please send him the data asked for; also send a copy here for our files.

Very truly yours,

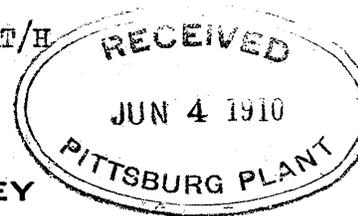
A handwritten signature in cursive script, appearing to read "A. C. F.", written in dark ink.

A. C. F.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
WASHINGTON

TECHNOLOGIC BRANCH.

WRT/H



REFER TO FILE NO. 52-4

June 3, 1910.

7127

My dear Mr. Rice:

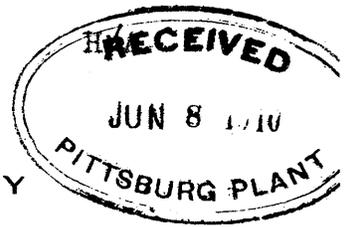
Your letter of June 2, inclosing two blue prints of the Palos mine plan, duly received. The two lantern slides mentioned therein have not yet come to hand, but they will probably come in a little later.

Very truly yours,

H. M. Wilson
A. C. T. J

Copy for Mr. Rice

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
WASHINGTON



TECHNOLOGIC BRANCH

IN REPLY REFER TO FILE NO. *3248*

June 6, 1910.

(Through the Director).

8-33

Mr. Drennen,
President, Palos Coal & Coke Co.,
C/o Drennen & Co., Birmingham, Alabama.

Dear Sir:

In carrying out my promise, made at the time of my visit to the Palos mine disaster, that I would write out for you any suggestions that might occur to me as being of possible service in improving the conditions for safety at the Palos mine, I am sending you now the following notes. I trust you will appreciate the spirit in which they are prepared and sent to you; and that no publicity is to be given to this letter, or to the fact that such a letter has been sent to you:

After my departure, Mr. Rice and Mr. Rutledge in their investigations up to and including Tuesday, May 24, found that the area between the fourth right and sixth right entry in the Palos mine, was not being ventilated sufficiently, although the fan was said to be running at about its normal speed and other conditions were said to be about as they have been in the past. They found that this large area was pervaded throughout by gas sufficient to obtain a "cap" in Wolf's safety lamp of from one-fourth to one-half inch, thus indicating from one to three per cent of firedamp (methane) throughout the area in question, and that at the face near feeders gas in explosive quantities

Mr. Drennen - 2

would be found. These points at the face were not tested, inasmuch as it would have been extremely dangerous to have placed safety lamps there although the feeders could be heard.

It is needless to say that this constitutes a danger as a naked lamp igniting gas at the face would start an explosion, which, supplemented, by the large amount of fine coal dust throughout the mine, would cause a repetition of the former disaster. Even if safety lamps are used, there would still be danger as such lamps have a limit of safety in the presence of an explosive mixture. Moreover, the permissible explosives while tested in the presence of a certain amount of methane and dust, might not always prevent ignition when in the presence of an explosive mixture as they are not intended to be used under such conditions. More or less dynamite is said to be used in your mine in shooting down rock between the layers of coal or what is termed the "middle man." Sticks of dynamite were found in several places in the mine in the course of the recent investigation. Dynamite will cause ignition of either gas or coal dust. With these conditions in view, it is almost needless to say that I consider the continuance of the conditions dangerous.

Taking existing conditions into account, those of us who took part in the examination are of the opinion that you will greatly increase safety in the mine by making the following changes:

- (1) Setting up the second fan which you now have at

hand in the adjacent or parallel opening to the one from which the present fan draws and have both of them worked together;

(2) Below the Second Right Entry, and possibly below the First Right, carry the intake air both down the main slope and the air course by arranging the brattices suitably, and use both these entries and the intake as far as the Sixth Right. Then split the air leading one-half at once through the Sixth Right and thence through the open rooms to the Fourth Right, thence through the other open rooms to the Second Right, and if there is connection to the First Right through such rooms on to the First Right whence it would return through the air course to the two fans;

(3) The other split of the air would pass down to the Seventh Right, thence to the face of the Main Slope and up through the old rooms to the Fifth Left and from there up through other old rooms to the Third and then to the Second. From there it would pass by the overcast which already exists over the Main Slope to the air course joining the other return split and thence to the fans.

This would form the mine into two main splits instead of one as at present. It would, moreover, furnish fresh air and in larger quantity to the area where most needed between the Sixth Right and the Fourth Right. With this system on the left side there could be further splitting of air if it seemed desirable.

The expense involved in this would be the setting up

Mr. Drennen - 4

of the new fan, which should be done in any case, and as that one is in first class condition it would give you one fan to go on in case of a breakdown or shut down for temporary repairs; and the expense of repairing the overcast which has not been used for some time, and the expense of putting up a number of doors;

(4) To supplement the above plan the slope from the mouth to a point below the overcast should be widened so as to lessen the friction of the air in the present small passage and which is further restricted when a trip of cars is passing through same.

This plan appears to be entirely feasible, and could be carried out in a short time. In the opinion of our mining engineers this should be done (except the widening of the slope) before the mine resumes operations. The widening of the slope could be carried on during operations on the night shift.

Mr. Paul and Mr. Rutledge join me in recommending that you allow in the Palos mine only the best safety lamps; and that these be rigidly inspected daily, and kept in first-class condition.

Yours very truly,

J. A. H.

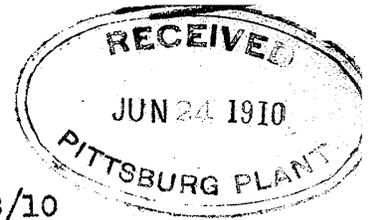
Chief Technologist.

Copy for Mr. Rice.

Copy

PALOS COAL & COKE COMPANY

Palos, Ala., 6/18/10



Mr. George O. Smith, Director,
U.S. Geological Service,
Washington, D.C.

52-46

Dear Sir:-

I am in receipt of your favor of June the 7th with letter from Dr. Holmes, Chief Technologist for which please accept my thanks. I assure you we shall take advantage of the many good suggestions offered in this letter. I appreciate very highly the interest your department has taken in this matter.

I wish you would please convey to Dr. Holmes our sincere thanks for his help and assistance during the rescue work. He and his corps of able assistants did heroic work for which we are very grateful. We trust, however, that we will never have occasion for them to act in the same capacity again, as we are going to use every effort to make the mines safe.

Again thanking you for the information furnished, I am

Yours very truly,

(Sgd.) F. M. Drennen,

President.

Copy to Mr. Geo. S. Rice, for his information.

J.A.H.

H.M.W.



June 18, 1925. GSR/leh

Dr. J. J. Rutledge, Chief Mine Engineer,
Maryland Bureau of Mines,
22 Light Street,
Baltimore, Md.

Dear Rutledge:

A question has come up in the matter of compiling statistics regarding the origin of the explosion at the Falco Mine, Alabama, on May 5, 1910, at which you and I carried on some investigations. For some unexplained reason we do not find any report of this in our files, although I was very strongly of the impression that we had presented one. I do, however, find correspondence in this office with Dr. Holmes which indicates that we thought that the explosion had originated in one of the rooms in the 6th right, and was probably due to an open light igniting gas.

At the time of the transfer of the Bureau files from the old Arsenal to the new station, there was considerable loss of material and that may be responsible for not being able to find it now. Have you a copy of the report or do you have at hand any notes which would help us in fixing the cause of the ignition? There is nothing in the correspondence which indicates whether the mine was an open light mine, but at that period I think there were no closed lamp mines in Alabama. You will recall that they did not believe in putting safety lamps in the hands of the negroes and that was before the day of the electric lamps for miners.

Very truly yours,

George S. Rice,
Chief Mining Engineer.

JMR
6/19/25
cc. Mr. Paul ✓

7196

Pittsburgh, Pa., June 21, 1910.

Mr. J. J. Rutledge,

Knoxville, Tenn.

My dear Mr. Rutledge:

We have never had any report from you regarding that sample of air which you took or were supposed to have taken in the Sixth Right entry at Palos. I had to assume that it was contained in the remaining bottle. I wish you would advise me about it, just where it was taken, and whether there was any movement of air. Also whether taken at the floor or roof.

The analyses showed as follows:

CO ₂	...	...	.30
O ₂	...	...	20.10
CH ₄	...	...	1.96
N	...	...	77.64

You will note that this is a dangerous quantity of methane, particularly if it was standing gas.

The two samples which I obtained of the return air on the morning and evening of May 15th showed .43 and .45 percent of methane, respectively. I assumed that the volume passing was about 30,000 cu. ft. of air per minute. The measurements had shown it to be 27,000 cu. ft. at the intake, but the fan was leaking more or less, and therefore there would be some excess over the intake at the point where the samples were taken.

Yours very truly,

Mining Engineer.

Pittsburgh, Pa., June 22, 1910.

Mr. H. M. Wilson,

Thru Engineer in Charge

Washington, D.C.

My dear Mr. Wilson:

I enclose herewith three copies each of mine air analyses No. 10522, 10523 and 10524 from the Palos Mine.

I suggest that you send one copy of each to the operating company and one copy to the State Mine Inspector, Mr. Hillhouse, the third copy being for your files.

You will note that the analyses of the main return taken at different times are about the same. While half a percent of fire damp is not an unusual quantity, when you consider that the mine is on one split of air and it is not a large mine, it carries considerable meaning. For example, assuming analysis 10523 as representing an average condition. At the point where the sample was taken, owing to leakages which increased the volume at the fan, there was about 30,000 cu. ft. of air passing per minute. This would mean that 135 cu. ft. of pure methane was being given off in the mine. On the most explosive basis, this would make 1600 cu. ft. per minute of fire damp.

Sample 10522 was taken in the 6th Right Entry, rooms off which I believed to be the source of the explosion. This air was quite stagnant and the gas, therefore, well mixed throughout. The quantity, practically 2 percent, while not dangerous in itself, would, in case of a blower being

Mr. Wilson 6/22/10 #2

ignited at the face, become of most serious consequence. There were a number of acres penetrated throughout by air containing this amount of methane as was indicated by the cap on a safety lamp. It was on this account that I urged in a letter submitted to Doctor Holmes that the operators should improve their ventilating system by putting in their second fan and making at least two splits of air.

Yours very truly,



Mining Engineer.

Encl.

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

WASHINGTON June 22, 1925.

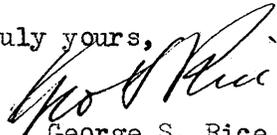
Mr. J. J. Forbes,
Pittsburgh Station.



Dear Mr. Forbes:

I want to remind you in case you did not send to Birmingham, that we are very anxious to get hold of a copy of the final report on the Palos mine explosion in 1910, if one was rendered. The preliminary report drafted by myself for the use of Dr. Holmes, I handed to Mr. Paul. This was a case I felt presented unusual conditions and I would like very much to have the lessons inserted in the bulletin which Messrs. von Bernewitz and Paul and myself are making up. We are very anxious to push this matter as much as possible.

Very truly yours,


George S. Rice.

cc. Mr. Paul
Mr. von Bernewitz.

gt 6/24/25



DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

WASHINGTON June 22, 1925.

Dear Mr. Paul:

As you know, I was very much astonished to find that there was no official report on the Palos(Alabama) explosion of 1910, on file either in Pittsburgh or this office but only some preliminary data. I have written to Dr. Rutledge to find out if he has a copy, and Mr. Forbes when he was here thought that there was a copy at Birmingham.

I remember the case most vividly; I learned very valuable lessons at that explosion. In order that you may have them under consideration, these are the points which I think should be brought out:

1. That in a mine making gas, as this was, open lights should not be used by miners.
2. That two splits of air are entirely inadequate, causing the return of one pair of entries to become the intake of another pair so that the methane accumulates.
3. That a long wet slope through rock does not prevent the passage of a coal dust explosion where there is a large amount of coal dust.
4. That under these conditions there may not be a coked coal dust or signs of burning through such area, yet there were masses of thick coke(which I photographed and the photographs used to be on file at Pittsburgh) on the timber of a railroad trestle crossing over the mouth of the slope. There was no coke on that side facing the slope but continuous thick coke on the reverse side. Flame had spread on either side, and the Superintendent said that he saw it reach above a high bluff over the mine, and this was indicated by the burnt vegetation. The flame also burned the paint halfway across the bridge which was in line with the slope/^{and} which extended over the stream. A mail carrier was burned on the bridge and his sack of mail half consumed.
5. That in a strong flaming explosion, the flame does not always extend to the walls or the floor. A body which I saw at the foot of the slope at a siding was not burned and even the hair was not burned although plastered thickly with mud.

We also discussed some time ago, the Starkville, Colo. explosion of 1910. At that time the report could not be found, although I thought that either Wolflin or I had rendered one. I find the carbon copy of part of a draft in my personal file, and unless the original report has turned up in Pittsburgh I will prepare a brief report from my original notes as I think this explosion also presented valuable lessons.

Very truly yours,

Geo. S. Rice
Geo. S. Rice.

June 24, 1926. JJF /1.

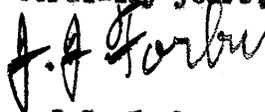
8-33

Miss Mae Wilson,
U.S. Bureau of Mines,
Birmingham, Alabama.

Dear Miss Wilson:

Attached is letter from Mr. Rice regarding final report on Palos mine explosion, Alabama, year 1910. Please look through the Birmingham files carefully for this report and if you locate it send direct to Mr. Rice, Washington. I have a recollection of coming across such a report. If I am mistaken in this, send Mr. Rice with copy to me any information bearing on this explosion.

Cordially yours,

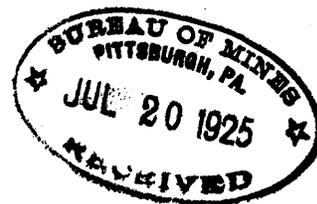


J.J. Forbes.

cc-
Mr. Rice,
Mr. Paul
Mr. VonBarnowits,
files.

C O P Y

STATE OF MARYLAND
BUREAU OF MINES
22 Light St.
Baltimore



June 24, 1925.

Mr. George S. Rice,
Chief Mining Engineer,
U.S. Bureau of Mines,
Washington, D.C.

*Palos Mine Explosion,
1910*

Dear Mr. Rice:

Referring to your letter of June 18th relative to the report of the Palos mine disaster in Alabama and your inability to find the report of this disaster in the files of the Bureau, of course, you and I should both be excused if we had prepared no report on this disaster for I well recall that after being twenty-four hours on our feet in Mulga mine investigating the disaster, we had only been in bed about twenty minutes when we were notified of the Palos disaster and had to get up and dress and make a rush for the special train which was leaving the terminal station at Birmingham for Palos in a few minutes, so that considering the circumstances you could well be excused if no report was made. Moreover, at that time I was new to the preparation of such reports and had not fully realized the necessity of making careful detailed sketches and resorted to written descriptions almost entirely for the collection of the data.

On the other hand, I recall that we made a very careful inspection of the Mulga mine workings and this was impressed on my mind owing to the fact that Mr. Paul discovered some data which you and I had not noticed on our first visit through the mine. I also recall that Mr. Paul made sketches at Palos mine, for William Robinson, who worked with him on the night shift, while you and I were on the day shift, stated to me the next morning, that "they were making pictures all night", alluding to Mr. Paul drawing sketches in his Bureau note-book.

There was one place to the left of the slope, I think 6th West(?) or left, where some men were engaged in drawing pillars at the time of the explosion. The contractor in charge of this work was a man named McCardle, whose brother was a prominent man in the Amalgamated Steel Workers Organization and at the time of the disaster I think was one of the City officials in Pittsburgh. I recall this very well because I remember the jumper which was on McCardle's body and noted the note-book in his pocket. We thought that the heavy pillar fall had blown the gas on the naked lights and this had caused the explosion. McCardle and a gang of men were engaged in drawing pillars at this mine. You will recall that James Beard, the Mine Foreman, was outside the mine when the disaster happened and was the only man on the mining force who escaped alive.

There has never been any question in my mind but that it was a gas explosion- of course, propagated by coal dust. We found a great deal of

*McCardle
7/20/25*

gas in the mine during the examination and many places where dynamite had been used in shooting the coal.

I will be very glad if these few facts may be of any possible assistance to you. It may be that in one of my daily note-books I may run across some reference to the matter. I will try to look these up and if I find any reference to this disaster I will advise you. I refer to the daily memorandum book which it was my custom to carry during the years I worked for the Bureau.

With best wishes,

Very truly yours,

J.J. RUTLEDGE
Chief Mine Engineer.

P.S.- In further reference to your letter, I am very sure there were no closed lights in the mine at the time of the explosion, except possibly those used by the fire bosses. By the way, the brother of the two Stansbury brothers, the two brothers in the Palos Mine who lost their lives in the explosion and whose bodies were found on the slope, is now an assistant foreman in Bessie Mine of the Sloss-Sheffield Coal and Iron Co.

I will try to look up some of my old personal notebooks and locate any notes that I may have on this Palos disaster. I do not recall having made any report of my own. Of course, the State Inspectors made reports. I think Robert Neal was in charge at the time of the disaster as James Hillhouse, then Chief Inspector, was in another part of the field. If necessary we can obtain all the information regarding this disaster since, with one or two exceptions, all of those who took part in the rescue and recovery operations are alive.

Mr. J. J. Forbes

8-33

Birmingham, Alabama,

June 26, 1925.



Mr. Geo. S. Rice,
U. S. Bureau of Mines,
Washington, D.C.

Palos Mine Explosion Report
Year 1910.

Dear Mr. Rice:

Mr. Forbes has just forwarded a request that I look through our files and see if we have a final copy of the report on the Palos mine explosion which occurred in 1910.

I have looked very carefully through our files and am unable to find anything relating to the explosion of 1910. The earliest correspondence we have at this station regarding Palos begins April 20, 1916, with the collection of air samples by Mr. E. B. Sutton.

Very truly yours,

cc. Mr. Paul

cc. Mr. Forbes.

Mae Wilson
Mae Wilson,
Clerk.

W.A. 68 29/25

, SR/ACS

8-33
43

Pittsburgh, Pa., June 28, 1910.

Mr. H. M. Wilson,

Thru Engineer in Charge

Washington, D. C.

My dear Mr. Wilson:

Referring to samples taken in the Palos Mine, Alabama, samples 10505 and 10506 are two full section samples of the face. 10514 is a composite of these two.

It was understood by the operators that we were to send copies of these analyses. I note from a copy of letter from Mr. Fieldner to you that you have received four copies of each of these. I therefore wish you would transmit one copy to the operator, Palos Coal & Coke Co., The mine address is Palos, Ala. The President, Mr. Drennan, is in Birmingham. The firm name is Drennan & Company.

Yours very truly,



Mining Engineer.

July 3, 1925. JWP:BG

CHIEF MINING ENGINEER.

SUBJECT: Palos mine explosion,
May 5, 1910.

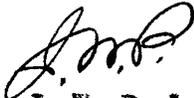
Dear Mr. Rice:

There is returned herewith Washington file 442 on the Palos mine explosion, Palos, Alabama together with two copies of a write-up of the explosion prepared from such data as I was able to find in the files, although up to the present time no copies of a report has been found.

It appears from correspondence that there had been prepared in some form two blueprints of the Palos mine as noted in the Washington file and from which there appears to have been made two lantern slides. I have found in the Pittsburgh files a blueprint of the sketch you made which is attached to the Washington file, although it was made from a redrawn sketch.

The one copy of the compiled report attached is being sent so that you may make any corrections or additions and return, the extra copy attached you may keep for the Washington files.

Very truly yours,


J. W. Paul.

Encl.

UNITED STATES
~~DEPARTMENT OF THE INTERIOR~~
DEPARTMENT OF COMMERCE
BUREAU OF MINES

WASHINGTON July 11, 1925.

Post file

8-33

Mr. J. W. Paul,
4800 Forbes Street,
Pittsburgh, Pa.



SUBJECT: Palos Mine Explosion,
May 5, 1910.

Dear Mr. Paul:

I received your letter of July 5d, with File 442 on the Palos Mine Explosion in Alabama, which occurred May 5, 1910, eighty-four men being killed.

The brief you have prepared from the letter of Dr. Holmes of June 6, 1910 to Mr. Drennen, President, Palos Coal and Coke Company, which had been made up from a prior draft I had prepared at the time and data from other sources seems very satisfactory and fully covers the "lessons" I suggested in my recent letter to you.

I am returning, herewith, one copy which I have Ok'd.

Yours very truly,

A handwritten signature in cursive script that reads "G. S. Rice".

GEORGE S. RICE,
Chief Mining Engineer.

CONFIDENTIAL.

July 16, 1912.

Mr. Ed Flynn,
Inspector, T. C. I. & R. R.
Pratt City, Alabama.

My dear Mr. Flynn,

It was brought to my attention on the discussion of the proceedings of the Mine Inspectors' Institute, 1911 meeting at Charleston, that you are quoted as stating that there was no evidence of the slope in the Palos mine having been watered.

My recollection, as well as my notes show that the floor of the slope indicated that water had been running down it; and in the lower part of the slope I noticed, and clearly recall that the bodies of some of the men were plastered with mud, and their faces coated with mud. I did not enter the mine until the first three bodies had been recovered in the upper left entry, but from there on down I continued with the advance party and marked the position of the bodies, with their numbers, on the roof or rib, and endeavored to get the system of tagging the bodies carried out, which was not done, however, by the next shift. I was informed by the mine foreman, on inquiring about the mud that they had relaid the track down the slope, and in doing so had washed down the road, from top to bottom.

I spent over a week at the mine and had opportunity of observing the evidence quite closely. As far as other parts of the mine are concerned, they were exceedingly dry and dusty.

If you are reported correctly, am sorry that we differed in our observations. It occurred to me that if I reminded you of the condition of some of the bodies, the faces of the men being plastered with mud, and their hair filled with it, that you might then recall the features about which I speak. I would not intentionally misstate any facts observed.

The chief purpose in using the matter was an argument that it was not sufficient to wet part of the mine; it must be wet throughout, and ignition prevented at the start, rather than attempting to control it later. The Banner explosion, in my opinion, confirmed this point of view.

Sorry I was not able to attend the recent meeting at Columbus, and to have seen you. I hope you are getting along very nicely, and shall certainly count on attending the next meeting at Birmingham if it is within my power.

Yours very truly,

Chief Mining Engineer.

GSR/ACS

7126

Pittsburgh, Pa., August 18, 1910.

Director,
Bureau of Mines,
Washington, D. C.

Sir:-

Will you kindly advise me whether copies of analyses of samples of coal taken from the Palos Mine were submitted to the Palos Coal & Coke Co. as per their request? I remember that the gas analyses were reported to them directly as it has been the custom to allow direct transmittal by me to the companies on account of the necessity of taking prompt action to prevent possible dangerous conditions from the gas.

In regard to the transmittal of coal analyses, this has always been done through the Washington office and I think that this practice should be continued, but I believe it would be very desirable if you would send me copies of the letter of transmittal in each case so that my files may show whether or not the analyses have been sent.

I find that in the field there has been grave complaint of the matter in the past, the operators claiming they never received the reports that have been promised. In some cases it has been difficult for us to overcome this situation and assure them that they would receive reports. By having a complete record in this office, I will be able to insure the operators getting them. Undoubtedly in some cases the fault has been at the Pittsburgh end through not transmitting sufficient copies, but by the method mentioned, I will take the responsibility of correcting these omissions.

Respectfully,

October 20, 1925. JWP/MCH

Mr. Sanford,
Washington Office.

Subject: Map of Palos Mine.

Dear Mr. Sanford:

Attached hereto is tracing of the map of the Palos, Alabama, mine for insertion in Bulletin 252 on "Coal Mine Explosions," which is being sent you in order that you may place it along with other similar illustrations.

According to the text of the manuscript, this will be designated Figure 69-A.

Very truly yours,



J. W. Paul

Incl.



Newspaper Accounts

RESCUE WORK IS ABOUT OVER WITH 74 BODIES OUT

Search For the Others Will
Be Resumed Early This
Morning

WIDOWS AND ORPHANS NOW CLAIM ATTENTION

Willows Discusses Tasks Which Now
Confront Red Cross—Some Dis-
agreeable Incidents Recorded
During Rescue Work

BY RALPH R. SILVER

Palos, May 9.—(Special.)—With the recovery of 74 bodies it is now believed there are not more than five or six others in the mine. Rescue work will be resumed tomorrow morning.

Palos, May 9.—(Special.)—There is no rescue work going on tonight at Palos. Mine Foreman James Baird had intended to start the rescue work tonight at 6 o'clock, but the men had been so thoroughly exhausted when they went to their homes this morning that there was not a sufficient number of them appeared this evening to carry on the rescue work.

Inspector Wayne of Birmingham arrived at Palos at 5 o'clock this evening and he and Foreman Baird will start the rescue crews tomorrow morning and keep up the work until all the bodies are recovered. Mr. Baird stated tonight that he expects to have all the bodies out by 12 o'clock Tuesday. He also said that applications had been received to fill the vacancies of the dead men and that he expects to have the mine in operation in two weeks.

Mr. O'Brien, a miner from Mulga, is one of the heroes of Palos. He has worked continuously with the rescuers since the explosion and he sat about the office of the company all day today eagerly waiting for the word to take up the work again. Mr. O'Brien would have been one of the dead instead of one of the heroes had he not missed a train out of Birmingham to Palos Thursday morning. He was on his way from Mulga to start work at Palos. He missed the morning train and did not

to work. ... get there in time to go

Now Comes the Heartaches

The Palos disaster came suddenly and with it came sorrow and sadness. It is now almost all over but the heart aches and sorrow remains. The widows and orphans of I. only today began really to realize the plight and trouble they were in. Up until this time the loss and terrible death of their dear ones has completely occupied their minds. Their grief was too great to think of the future. Now the majority of the dead have been recovered and given burial and the fatherless children and the widows of Palos find themselves facing the question, "What next? What am I to do and where shall I and my children go?"

The widows and orphans at Palos live in the company's houses, and these will have to be vacated in the near future to give place to the families of the men who take the dead miners' places. It is not so much How are we to live? as Where are we to live and how to get there? That will be the problem for these unfortunate women and children who after all are the real sufferers of the disaster.

Prior to today the crowds of weeping women and children congregated at the mine. Today they gathered about the offices of the company and of the Red Cross in the heart of the village. Everything possible is being done for them by the company. They are given food and clothing and the necessaries of life while they live at Palos. The work of advising them about disposing of their household articles and live stock, about where to go to live in the future and how to get there falls to the Red Cross society, and the extent of this organization's help to the widows depends entirely on the funds raised by the citizens of the state.

Willows Discusses Future

Maurice Willows, the local head of the Red Cross work here, said today: "The men at the head of the relief work at Palos must take up the case of each family separate and distinct from the others. They must put themselves in the place of the dead husbands and the sons and brothers who were the former support of the family, and from that point of view determine where and when and how to send the widows away.

"Some have a cow or horse, others have furniture, all of which will have to be either sold or moved. They are scattered over a district many miles in radius and all this work is very tedious and slow. We are trying to send them where they have relatives capable of helping them, and the work of locating the latter is taking lots of time. We are getting along as well as can be expected, however, for many of them have already been sent to their relatives and new homes have been found for them. All we need now is funds, and I feel sure that the people of Alabama and surrounding states will have that forthcoming when the call is made."

Rescue Work Abandoned

After five days and nights of ceaseless labor without rest or sufficient food human endurance at last came to an end and this morning at 3 o'clock the rescue work was abandoned after 74 bodies had been taken from the mine. Several more bodies are known to be in the mine, but are covered with fallen rocks and considerable work, which probably will include blasting, will have to be done before they are recovered. State Mine Inspector James Hillhouse turned the remainder of the rescue work over to the owners and operators of the mine this morning. Officials of the company now claim that the total dead will not number over 35. Many of the miners are of the opinion that there are dead bodies in the mine that will never be recovered as they are completely covered with debris.

Taken Up By Local Men

The rescue work was taken up again this afternoon by Mine Foreman Baird

FIVE MORE BODIES TAKEN FROM MINE

Total of 82 Have Now Been Re-
covered

THEORY ON EXPLOSION

Belief Now Expressed That Greatest
Force of Palos Explosion Was
Felt Over Mouth of
the Shaft

Palos, May 11.—(Special.)—With the five bodies recovered Tuesday night and today the total number of dead taken from No. 3 mine reaches 82, the dead mail carrier making 83 killed in all. There are now supposed to be three or four more bodies in the mine and the rescue crew is working all night in an effort to find them.

Those recovered last from the mine were J. S. Pennington, J. L. McCain and another white man, unknown, but believed to be from Mulga; and two negroes, Walter Cunningham and an unknown. The bodies are now so decomposed that identification is little more than guesswork. The work is so disagreeable on account of the offensive odor from the dead mules and humans that the rescue crews of ten men can endure the stay in the mine but a short time.

State Mine Inspector James Hillhouse will return to Palos tomorrow to get data on the cause of the explosion, so that he can make out his report to the governor of the state. Mr. Hillhouse finished his report on the Mulga disaster and sent it to the state capitol today. What the report contains will not be known until the governor makes it public.

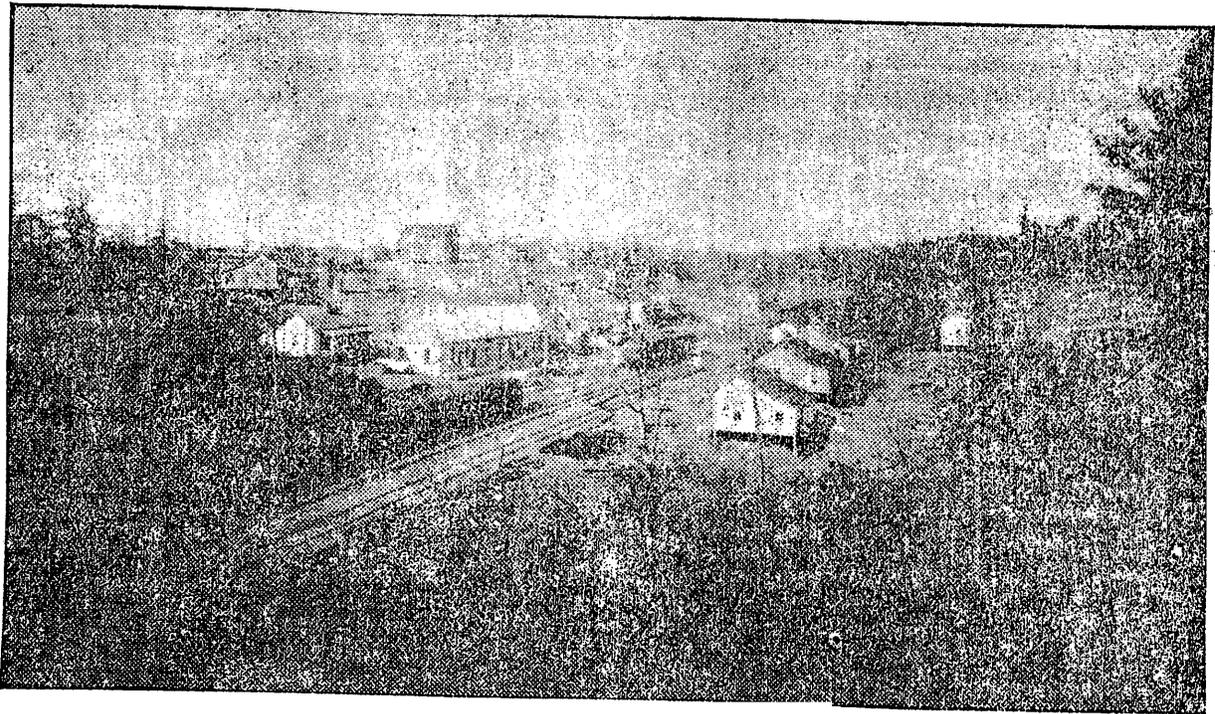
The latest theory of the explosion at Palos is that the major part of the explosion did not occur until the gas had reached the open air. The fact that the mine inside is very little damaged and that there is so much evidence of the force of the explosion about the mouth of the mine for many feet points to this conclusion. That this could easily be possible is shown by the fact that the gas found in a mine is not explosive unless mixed with the proper proportion of air—ten parts gas to one of air being the highest explosive point experts claim. When it is lower there can be but little chance of explosion and when it gets below seven or higher than thirteen, it is claimed that the mixture will not explode at all. The theory now is that the gas and air were so proportioned in the mine, probably about eight to one, that a small explosion occurred, having enough force to rush the gas toward the mouth of the mine. When the gas reached the open air it was burning from the smaller explosion in the mine, and, as soon as enough air mixed with it to raise the proportion, the large explosion occurred that killed the mail carrier, Sam Goolsby, and burned the leaves on the trees for hundreds of feet away. With this theory also the conclusion is reached that most of the men in the mine were smothered and killed by the after-damp rather than by the explosion.

"Billy" Hillhouse, son of the mine inspector, and who was his father's first assistant all during the rescue work at Palos, said today:

"Yes, the explosion at Palos was a phenomenal thing. I do not believe that I ever saw one like it before and I have seen many explosions. Some people think that the explosion did small damage to the mine because it was a slope, but a slope is damaged just as much as a shaft mine by an explosion. I have an idea what caused it and how the explosion occurred, but I dare not make it public until the report is sent to the governor."

Appointment Still Being Delayed

VIEW OF GRIEF-STRICKEN TOWN OF PALOS



This picture, taken especially for The Birmingham Ledger, shows the town of Palos as it stands today. To the left is seen the hill, on the other side of which is the ill-fated mine, one half mile away. The houses show the homes of miner in which there is nothing but gloom today.

the black. All of the faces were blackened and charred as black as the darkness that surrounded them. Their tongues, swollen and bleeding, lolled out of their mouths like those of panting dogs.

This was the second entry, and the party stopped for rest. After a few minutes they started on again and going through the same scenes over again, finally came to where the rescuers were at work. Blackened and bleeding, working like tigers and laughing in the very jaws of death, they could be seen flitting about the mine. At frequent intervals a roaring, rolling thunder came vibrating up the slope from the deeper parts of the mine, which had not yet been entered. It was the roar of falling rocks and told in rumbling tones of one more of the terrible dangers threatening the rescue crews. These men were mostly silent. Their every thought was occupied with the one purpose of getting to the bodies of their now known to be lead comrades. They thoroughly realized the danger from fire-damp, from another explosion, from suffocation by aftermath and from falling rocks from the mine roof, yet they never gave it a moment's thought or consideration. They knew nothing but work and work they did.

Eagerly they came to the coffee buckets and drank in long, eager gulps of the black coffee, made over a pile of coals at the mouth of the mine. They did not stop to talk, but hurried back to their

places. He seen people wailing and groaning in the sorrow that followed the knowledge that their loved ones were dead. Women fainted several times and, scattered throughout the crowd were groups of women, all crying and talking at the same time about the last words and acts of their sons and husbands and brothers when they left home Thursday morning.

When the Age-Herald arrived this morning the crowds gobbled up the papers like magic and soon the people could be seen collected in groups with the one who could read, unfolding the story of the disaster to her more ignorant neighbors.

Along the road leading from the mines to Palos all day could be seen wives and sisters leaning on the front gate of their little lawn fences looking toward the mines, crying and calling in vain to the loved one entombed in the pit of death below.

Mrs. McCaine's Sorrow

This evening Mrs. J. L. McCaine, whose husband is buried in the bowels of the mountain, stood in the front yard of her home shading her eyes with her hand as she looked toward the mine a mile distant and cried for her husband to come back to her: "Oh, Jim, my Jim," she cried. "Where is he? Why don't they get his body out? Oh! to think he is lying in that dungeon. Oh, he's dead. My husband is dead; his body is cold and he will never talk to me again. Oh, why, why, if there is a God, why did he allow this?"

Jim Clarke, who is dead in the mine, and who leave a two-months' bride, was a young miner just starting out to make a home for himself. His brother, West Clark, said he had talked to Jim before he went into the mine Thursday, and that he had said he was just getting his business straightened out. He had bought a home and was making payments on it. He asked his brother's advice about borrowing money to pay for the little home in full and had decided to do this. Now he is dead, and that home will not only never be paid for, but it does no longer exist. Half of its happiness lies cold and unresponsive to the pleadings of the wife hundreds of feet under the ground.

The report that the first rescue work was under the direction of Government Inspector J. J. Rutledge was a mistake. The government inspector is not allowed according to law to take charge of the work. Assistant State Mine Inspector Neal was in charge of the work until Inspector Hillhouse arrived early this morning.

Bravery of Rescuers

The self-denial and bravery of the rescue men will live forever in the memory of men. An illustration was given when Mine Foreman Baird was brought to the surface today overcome and exhausted from work. He said: "God knows my heart. If there was someone to care for my wife and babies I would much rather be dead in the mine with my men."

There is not a moment lost in making up the rescue crews. As the man in charge announces time for a new crew to enter and relieve the one in the mine dozens of men step forward and in a minute offer their lives for the rescue of their fellow workmen.

The official statement made by the bookkeeper of the company is that 92 men are positively in the mine. How many others will not be known until all the bodies are recovered.

Several militia boys from Birmingham were found on the scene of the disaster and were pressed into service as guards by the company to handle the crowds.

Palos Hill Cross street corner. Lists of Mine Superintendent M. B. Men, Dr. J. W. Snow, the Rev. William Neil, R. L. Dill, W. E. Draper, J. A. Davis, S. S. Smitherman, W. J. Simmons and Dr. W. L. May.

BEREAVED WOMEN PREPARE FOOD FOR RESCUE PARTIES

(CONTINUED FROM PAGE 1)

quences. They work on, willing and tireless.

The women of Palos have joined the ranks of the fighters. They have wiped away their tears which come so willingly. They have, many of them, devoted their entire time for hours and hours since the explosion to the task of preparing food for a small army of men who at any time may bring forth from the bowels of the earth a husband, a sweetheart or a son or a brother. But Palos is making the best of the situation.

How It Feels To Be With Rescue Parties In The Mine

Age-Herald Staff Correspondent Goes Into Chamber of Horrors With Men Who Are Heroically Working to Rescue the Bodies.

BY RALPH R. SILVER

Palos, May 5.—(Special).—An oppressive, appalling silence, the awe-inspiring silence of death, fell over the little party of three as they entered the mouth of the mine and began the long, silent and burdensome descent to the depths below, where a crew of 20 rescuers were already at work, fighting the fire-damp and trying to locate their fellowmen, who had fallen in the daily fight for the sustenance of life to themselves and to their little families, cozily housed in the cottages on the hillside.

Everywhere were marks of the rage and anger of the force of the explosion, as it rushed up the slope to the open. The walls were covered with a black soot, making the place the more in keeping with a vault of death, draped in black by nature herself. Some of the ties of the track were even blown from their foundation and torn away. Every short distance the party came to a brattice built in the passageway out of canvas. As they were approached in the Stygian darkness of the underground passage they first looked like ghosts, threatening and fearful, of the dead men lying deeper in the workings of the mine.

The roar of the air, where it leaked past the defective brattices, sounded and resounded through the passage like the voice of the dead buried in the darkness ahead, and calling for mercy, help and assistance. The air became more impure and oppressive as the party progressed deeper and deeper into the bowels of the mountain. Breathing became more and more difficult and beads of perspiration began to stand out on the faces of the men. The passageway was so low at places that one had to stoop over until the head was on a level with the hips. This made the going the more difficult. As the first entry was passed a great gust of air passed down it and left the main passageway almost entirely without fresh air.

The slope now started down a steeper grade and the slope was a trifle higher, so that walking became slightly easier, although suffering from the bad air was intense. No one spoke a word and the breathing of the other two could be heard above the noise of their footsteps. Again more of the white, staring brattices were passed and finally a light was seen weakly glimmering in the distance. It cast a sickly glimmer over the surrounding space, but by its light could be seen a miner sitting at the death watch; for close about him were a half dozen stretchers and beneath their white canvas covering could be discerned the forms of dead men.

As the covering was raised from the stretchers a horrible sight met the eyes of the men. It revealed the torn and bleared faces of men, honest, true and brave, who had offered their lives for the sake of their families, and who were the most holy calling

work. A few of the most exhausted accompanied the party back to the mouth of the mine, where their places were quickly filled by fresh men, who hurriedly entered the slope to continue the gruesome panorama of life and death and suffering until the last body is recovered from the debris and given burial.

HEROIC RESCUERS STRUGGLE BRAVELY TO BRING PALOS VICTIMS TO THE SURFACE

(CONTINUED FROM PAGE 1)

charmed form she was denied seeing the body until it was washed and cleaned. Slowly she returned to her home, going back over the hill to Palos from where her cries of agony could be heard after she had entered the woods a half mile away.

This was the first scene of a sorrow-stricken wife when the bodies were recovered, but many more occurred during the day. The latest report gathered about the mine is that the total dead will go above the first estimate by 40 or 50 men. This is because there were men in the mine who were working for contractors, and the company's books show only the contractors' names. Henry McArdle is one of the contractors who is known to have 25 men working under him, and his is the only name credited on the books of the company.

It had been reported that McArdle's body had been recovered, but men who had been in the mine a short time before the explosion claimed that he and his gang are at the farthest extremity of the mine and will be among the last to be recovered. The estimate made late this evening is that the total dead will reach 160 or 170 persons.

Undertakers Have Difficulties

Lige Loy and Gaudin are in charge of the bodies after they are taken from the mine. The electric power house of the company located across the river from the mine has been fixed up as a morgue for the whites, and the blacksmith shop nearby is used for the negroes. Tom Allen of the Lige Loy company is in charge of the undertaking work. Mr. Allen stated that it will be very difficult to embalm the bodies because they are stiff and gold when recovered, and no circulation can be obtained to do the embalming work. Many of the bodies already recovered have commenced to decompose, and the funerals will be held at the earliest moment coffins can be obtained.

Saturday will be the first funeral day, and they will continue from that on as the bodies are taken from the mine and prepared for burial.

Mr. Allen said that none of the bodies will be embalmed except those that have to be sent away.

The boys are dressed in their uniforms and are doing some good work.

Excursion Trains Come In

Two excursion trains were run into Palos today from both directions over the Frisco lines. They were crowded with people. Every freight train, switch engine, mule wagon or any vehicle coming toward Palos was crowded with people drawn to the scene of the explosion out of curiosity. The top of boxcar trains were loaded with people, all going to and from the little mining village. Even at 11:30 o'clock tonight a trainload of people arrived from Birmingham, Bessemer and Adamsville, and hurried to the mines.

A feature of the rescue work is the system used by the officials. Every rescue crew is given a map of the mine, showing where each entry is, how many men are in it and how far the air is going down. Inspector Flynn stated that by 2 o'clock this morning fresh air will be going past the last brattice, and the entire mine will be open to exploration. The cave-ins are not as bad as at first reported. Most of the brattices were made of concrete, but the explosion smashed them to fragments.

Mother Goes Insane

The mother of Ben Kincannon, one of the dead, has gone insane. When she talks of her dead boy she laughs and and jokes and gives the impression that everyone is happy at home. She is a very aged woman.

E. O. Taylor, brother-in-law of Ben Kincannon, worked all Thursday night with the rescue crews and did not know that his brother-in-law was dead in the mine until he saw an Age-Herald Friday morning, he stated.

A big, robust young miner, Oscar Spruell, cried like a child last night when he discovered his two brothers, Melvin, aged 13, a trapper, and Elbert, aged 14, a driver, were dead. One of the saddest sights of the disaster is the bodies of the young boys between 13 and 15 years of age as they are brought to the surface.

In some instances almost entire families were wiped out by the explosion. There are four Stansberry brothers dead, and the four Penningtons that were killed are father and his three sons.

A message has been received from H. M. Beck, grand chancellor of Alabama Knights of Pythias, saying that if there are any widows and orphans of members of that order who are in need of aid of any kind that he wants to be informed so that official action can be taken for their assistance.

Red Cross Work

Maurice Willows of the Boys' club has been on the ground since the very first, representing the Red Cross society and compiling lists of the widows and orphans who need assistance now or in the future. Arrangements have been made with the company here, states Mr. Willows, to give financial aid to any who are in immediate want. E. P. Bicknell of the Red Cross society from Washington will arrive here Saturday and look over the situation. As soon as he sees what is needed he will ask the governor of the state and the mayor of Birmingham to make public proclamations asking for funds. Then an organized canvass will be commenced to raise funds for the needy.

IT WAS HIS LAST CALL

Special to The Birmingham Ledger.
Palos, Ala., May 6.—Ransom Brassfield, an old miner, had stated that he would never enter a mine again, but yesterday morning his old love called him and he re-entered the mine, getting out four tons of coal before noon. He also had a brother, E. B. Brassfield, in the mine. Both men lost their lives.

Hopeless Hope Loving Sister

Special to The Birmingham Ledger.
Palos, Ala., May 6.—Miss Marguerite McArdle, private secretary to the purchasing agent of the Tennessee company, with offices in the Woodward building, heard of the explosion here at 2 o'clock. She immediately rushed to the station and caught the local train to Palos. Miss McArdle has a brother, H. A. McArdle, who is

trapped in the doomed mine. Miss McArdle remained at the Palos station, one mile from the mine, during the night, hoping against hope that her brother might yet be rescued alive. Miss McArdle remained up all night awaiting news from the mine that the bodies of the dead men had been found, or that live men, including her brother, had been rescued from some inner room of the slope.

DRENNEN AT LOSS TO KNOW WHAT CAUSED EXPLOSION

By Atticus Mullin.
Special to The Birmingham Ledger.
Palos, Ala., May 6.—"I have turned the whole matter over to Messrs. Rutledge and Rice, the government mine inspectors," said Felix M. Drennen, secretary-treasurer of the Palos Coal and Coke company today. "I have no idea what caused the explosion. We had every modern appliance that mining experience could dictate. The mines were inspected twice daily for gas and the report for Wednesday morning shows an entire absence of

it. I don't think the explosion was caused from a windy shot. We have a rule here that the miners must shoot only at 4 o'clock in the afternoon. The explosion came two hours before the time for the shooting to begin. I am utterly at a loss to explain the disaster, and it will now be up to the mine inspector to settle the exact cause."

The owners of the mine are at a loss to account for the statement of miners that they left the mines during the morning on account of much gas and frequent "windy shots."

EASY WORK NOW CLEARING DEBRIS

BY ATTICUS MULLIN.
Palos, Ala., May 6.—James Hillhouse, Sr., chief mine inspector for the state, arrived here this morning. Messrs. Hillhouse and Neill, for the state, and Messrs. Rutledge and Rice for the government are in charge of the work of exploring the doomed mine today assisted by Major Dodge, of the Tennessee com-

pany's first aid to the injured corps. At ten-thirty today no more bodies had been brought out though six were discovered. The rescuers have penetrated to the third entry, eighteen feet from the mouth of the mine. The passage is thoroughly bratticed and air is quickly following the rescuers, dispelling the black damp and making it possible for those without helmets to take part in clearing away debris.

EAGLES HAVE PICNIC

Special to The Birmingham Ledger.
Huntsville, Ala., May 6.—The members of the lodge of Eagles had their annual picnic yesterday at the Rocky Ford Grounds. A sumptuous barbecue was served on the grounds.

2-MONTHS BRIDE MADE A WIDOW

Tragic End of Youthful Romance of J. W. Clark and Wife

Special to The Birmingham Ledger.
Palos, Ala., May 6.—A sad story of the mine accident here was the ending of the happy two months of married life of J. W. Clark, a youthful miner 22 years old, and his child-bride, aged 16. The two were married only two months ago and were very happy. Palos citizens had remarked their loving demeanor. When Mrs. Clark was notified of the horrible fate of her husband, she did not even cry out, but rushed from her cottage to the mine and with dry eyes and tense muscles watched the rescuers work. She would not talk to a single soul and would receive solace from no one. Her stoical demeanor was noted by all. She is a beautiful young woman, and well educated.

FIRST DAY BROUGHT DEATH

Special to The Birmingham Ledger.
Palos, Ala., May 6.—Dave Williams, a mine foreman, and working up until two days ago for the Pratt Mines, reached Palos and went to work in the ill-fated mine yesterday morning, as did his nephew, William Willem. Both men probably lost their lives in the explosion.

BOY BROTHERS AMONG THE DEAD

Special to The Birmingham Ledger.
Palos, Ala., May 6.—Elbert Spruell and Marvin Spruell, the first named 13 years of age and the second 14 years of age and sons of Jack Spruell, who is himself an invalid from a mine disaster, were trappers in the mine when the explosion occurred. The two young boys support their father and mother, being the bristlers of the family. The fate is creating comment in day.

MAR- ARDLE'S BODY IS RECOVERED

Men Are Working Finely.
More Bodies Will Be
Taken Out Today

BY ATTICUS MULLIN.

Palos, Ala., May 6.—The remains of Harry McArdle, the brother of Miss Margaret McArdle, of Birmingham, will be taken this afternoon to Birmingham for interment, provided Coroner Brasher finishes his investigation in time. The new air current system used by the Palos Coal and Coke Co. was never better demonstrated than today. The fans are working with full force and for six or seven hundred feet into the mine, the air is as pure now as it was before the explosion. The air is following the rescuers this morning where the explosion shook down debris and rock. It is probable that the next bodies will come out during the

afternoon. The faint hope of live men being found exists only in the minds of the miners' families themselves.

It is impossible as yet to estimate the property loss to the Palos Coal and Coke Co. from the accident yesterday. The company carries insurance against litigation from damage suits but this insurance is limited and may not be above \$15,000. While the property loss cannot be exactly estimated, it is not thought that it will exceed twenty-five thousand dollars.

THREE YEARS' SENTENCE FOR CONVICTED PERJURER SUSPENDED ON BEHAVIOR

Special to The Birmingham Ledger.

Anniston, Ala., May 6.—After a short session, the spring term of the United States court was concluded here Thursday morning, when Judge W. I. Grubb imposed sentence on the prisoners who had been convicted. The heaviest sentence imposed by Judge Grubb was on J. H. White, the man who attempted to commit suicide after being convicted of perjury Wednesday afternoon. He was given three years in the federal prison in Atlanta, but this sentence was suspended contingent upon the defendant's good behavior, on the ground that his wife recently died and his incarceration would probably result in his children becoming a burden on society.

TWO MORE MEN ARE OVERCOME

BY ATTICUS MULLIN.

Palos, May 6.—Just before daylight Joe Hookins and James Sidell were overcome and brought out. They were terribly sick and physicians are working over them in the hospital car.

The full roster of the first aid corps here is Dr. W. S. Rountree, Major Dodge, Joe Hoskins, James Sissell, Winfield, Frank Long, Dr. Seay, Dr. Caraway, of Pratt City, Ed. Flynn, Joseph Merger, Sr., Ollie Gore, David Kelso, J. C. Dalrymple, Supt. McHugh, of Wylam, and Dr. Wright. The oxygen helmets are being used and are working finely. The two men overcome had failed to adjust the chin attachment properly, allowing the black damp to get in. The report now is that from forty to fifty bodies will be taken out at two o'clock.

DEPUTY SHERIFF STABBED.

Special to The Birmingham Ledger.

Huntsville, Ala., May 6.—Deputy Sheriff Wheeler Mitchell and Claude Phillips, a son of Alderman Phillips, engaged in a fight yesterday afternoon, and Mitchell was seriously cut in the neck.

by Milton Brennan, the mine's superintendent:

"It seemed to me like a gas explosion. I was in the engine room, across the river from the shaft entrance, when suddenly the building seemed shaken by an earthquake. The terrific roar of the explosion was accompanied by a tower of flames that shot to a height of fully 300 feet. There was only one report."

Considerable comment was aroused today when it became known that but a few weeks ago the mine was reported as dangerous by the state mine inspectors, who found gas in the passages.

The rescuers who penetrated into the mine today reported that in all probability most of the victims were trapped at the lowest depth of the mine, at the 2300-foot level.

The presence of an organized rescue corps at the Mulga mine greatly aided in facilitating the start of the work at Palos. The staff of doctors and nurses, the men accustomed to the use of oxygen helmets, and all the hospital facilities that had been gathered at the other mine were rushed here, including the hospital car of the Tennessee Coal, Iron and Railroad company.

Terrifying Expressions on Faces

The bodies were drawn from the mine on tram cars as fast as they could be operated. All show the horror of the explosion, those not mutilated having terrifying expressions upon their faces.

So badly burned were many of them that one body believed to be that of a negro, was found to be really white.

One of the bodies was that of Melville Spruiell, a lad of 13, who was a trapper in the mine. Three men and two women became hysterical when they recognized his body and the guards had difficulty in restraining them. The emotion of the five for a time threatened to start a wave of hysteria,

the mouth of the mine, instantly killing a man who was walking along the Frisco tracks one hundred feet from the mine's mouth. He was terribly charred and burnt and practically unrecognizable. He was later identified as a rural delivery man. The timbers along the trestle of the Frisco were charred and burned by the flames and the hoisting machinery wrecked.

No. 3 is a slope and not a shaft and for this reason it will be easier to enter the mine.

Check Weighman Forbes estimated the number of men at 45 white and between 80 and 100 negroes.

A complete list of every man cannot be gotten accurately until the body of Jim Baird, mine foreman, is found.

The No. 3 slope is dug into a bluff overlooking the Warrior river, which is only a few hundred feet away. Along a ledge about the river runs the Frisco. The top of the bluff at this point is 300 feet above the river at the mine's mouth being 300 feet above the river. State Mine Inspector Hillhouse reached the scene at 4 o'clock.

First Aid Corps Arrives.

The first aid corps and the T. C. I. hospital car arrived at 5 o'clock on a special and the rescuers were at once equipped with oxygen helmets and prepared to enter the mine.

The first entry was made at 5:50 o'clock. The fans were not badly injured by the explosion and were quickly set to working.

Heartrending Scenes.

Many miners stated that 250 men are in the mine, but this is discounted by the officials who should know. The scene around the mine's mouth presented a heartrending spectacle when the relief special arrived. For two hundred yards along the Frisco tracks which overlook the beautiful Warrior, were grouped miners who had reached the scene from other slopes. Timbers were being carried to the mine's mouth for bratticing purposes. Grouped on the other side of the river 700 feet from the mine's mouth were sorrowing women and children who were not allowed to cross the river. The wailing of the women could be plainly heard by those engaged in the work of rescue. The word had already been passed that small hope could be entertained for any of the imprisoned men. Experienced miners stated that a few men in well protected rooms might be gotten out alive if the deadly black damp did not reach them. The fact that the whole interior of the slope was swept by a seething flame made it almost impossible for any man or animal to live. As darkness came on the glowing fires on the opposite bank of the Warrior from the mine's mouth added to the horrors of the disaster.

Groups of sorrowing relatives were gathered around to console each other. At 6 o'clock the rescuers reached 165 feet into the interior and found one blackened form. The body was so horribly mutilated that identification was absolutely impossible.

Felt Miles Away.

At 6 o'clock the name of the dead mail carrier was found to be Sam Goolsby. He was carrying the mail from Porters' to Palos. The shock of the explosion was felt six miles away at Dora and Banner. The superintendent at Flat Top, three miles away, felt the explosion so distinctly that he rushed over to the scene. The first aid corps was ready to make the trip in forty-five minutes and were the same who took part in the Mulga disaster. William Pennington lost his father, and three brothers. Two brothers were married and their wives had infant girls.

Two Hundred Rescuers.

Special to The Birmingham Ledger.

Palos, Ala., May 6. — Nightfall

stay two hours in damp without being who volunteered and way into the mine helping in the brat come and brought man Jim Baird was was first reported th in the mine at the plosion, but this wa be erroneous. He mine and was acros to the hoisting mach ran across the bri shock and was the i the dead body of a mail carrier who w while walking along whole side of Goolst away and every ra as burned off.

First Aid t.

Major F. E. Doe the First Aid t immediately took ch of rescue when th the First Aid Car a chief mine inspect see company was al to volunteers to as of rescue. Dr. W. Dr. Wright came o body of rescuers. sicians were in fro five o'clock waitin the injured, if the injured. Their chil was in giving aid t were brought out result of the deadl of heroism that w the early hours aft never be recorded. were standing re mine without even to aid them. They to penetrate a fev fell from the deadl.

CONDUCTOR JI GRAP

F. S. Jones, a Fri pulled his train i at Palos five minut plosion occurred. mingham this afte

"The explosion mendous roar, sha lowed by a mount and clouds of sm the air for hundr

"Three men v mouth of the m a rural route n walking the So feet from the air was struck and k bris.

Every Man

"Practically eve was in the mine. live man outside c balance were wom

"I never wtness rending scene in n smoke had cleare flames were still mines, hundreds (the children crowd effort to reach th were entombed.

"I could learn : cause of the accid but I do not see h mine could have

"There were 18: according to all re: dead on the outsid run the total up

"The mines ar: on the Southern hundred feet awa ter of a mile fro was standing on

"I did not lea: to the mines, an out of Palos in te explosion occurre

THE BIRMINGHAM

VOLUME XXXIX.

Birmingham Age Herald

BIRMINGHAM, ALABAMA

May 7, 1910

Heroic Rescuers Struggle Bravely To Bring Palos Victims To The S

More Air Is Now Getting Into Mine and Better Progress Is Expected

ONE MOTHER INSANE FROM THE DISASTER

Pathetic Scenes and Incidents in Connection With Tragedy Touch Hearts of Strongest Men. The Situation

Palos, May 7.—(Special.)—Seventeen men were found in the fourth entry about 1:30 o'clock this morning. It is expected that they will be brought to the surface by 2:30 a. m. All are dead. This makes 33 men, including the mail carrier, that have been found dead. A cold, disagreeable rain has started, but this will not hinder the rescue work.

BY RALPH R. SILVER

Palos, May 7.—(Special.)—The rescue work in the ill fated Palos mine No. 3 continues unabated, but the men work under the greatest difficulties. At midnight 15 bodies had been brought to the surface. It is impossible to determine the number of victims in the mine. The company's books show 92 men to have entered but as many of them had helpers no estimate can be made of the men below. One contractor employed as many as 15 helpers, so that the list of dead may run far beyond the 100 mark.

Flynn Makes Statement

Mine inspector of the Tennessee Coal, Iron and Railroad company, Ed Flynn, said late tonight that the air was now going virtually to the bottom of the mine. "Work is being started on the fourth entry, where there are 17 men, and as soon as three more brattices can be built the air work will reach the bottom,"

"We are following the air down and working on the go down. The r

- LIST OF DEAD KNOWN TO BE DOWN IN MINE**
- E. SPRUELL.
 - M. SPRUELL.
 - RALPH SETZER.
 - BUD BACK.
 - C. H. STANDSBURY.
 - JOHN MILLIGAN.
 - L. W. BRASLEE.
 - GEORGE LEVAY.
 - JIM CURLEY.
 - H. A. M'ARNOLD.
 - R. L. MORROW.
 - V. J. MORROW.
 - E. W. CLARK.
 - D. HANCOCK.
 - L. C. PENNINGTON.
 - W. M. PENNINGTON.
 - CLARENCE PENNINGTON.
 - J. S. PENNINGTON.
 - D. GUTHRIE.
 - F. J. MORROW.
 - RANSOM BRASFIELD.
 - L. V. WARREN.
 - F. KINCANNON.
 - ELMER CONNELLY.
 - J. L. M'KAIN.
 - JIM CONLEY.
 - KNOX M'CAIN.
 - FRED STANSBURY.
 - EARL STANSBURY.
 - F. B. BRASFIELD.
 - MARTIN BURRELL.
 - GEORGE HANCOCK.
 - SANDY RICHARDSON.
 - WILL BANKHEAD.
 - WILL BLACKMAN.
 - KING CRAWFORD.
 - ROBERT CALHOUN.
 - DOC RICHARDSON.
 - DICK HENDRICKS.
 - WILL FARRIS.
 - JIM BURRELL.
 - WILL NEILL.
 - GEORGE BORUM.
 - PAUL BERNEY.
 - WALTER CUNNINGHAM.
 - J. T. MOORE.
 - WALTER JOHNSON.
 - ARTHUR CLAYTON.
 - TOM GATTER.
 - SANDY DANIELS.
 - WILL KEYS.
 - FELIX HOUTON.
 - WILL COOK.
 - W. H. HATMAN.
 - GEORGE EVANS.
 - FELIX WEBB.
 - HENRY FOY.
 - FRANK M'DANIELS.
 - GEORGE BRYANT.
 - RICH BARBER.
 - TOM BROWN.
 - ROBERT ERVING.
 - FRANK JONES.
 - DAVE CAMPBELL.
 - ISAJAH FARMER.
 - TOM MALONE.
 - DOC RICHARDSON.
 - JIM BANKHEAD.
 - JOHN WILLIAMS.
 - B. THOMAS.
 - KID GREENE.
 - E. D. NEAL.
 - WILLIAM ARNOLD.
 - JIM JOHNSON.
 - TOM HOUSTON.
 - FLETCHER GILBERT.
 - B. H. WHITE.
 - JOHN RICHARDSON.
 - JESSE CARR.
 - HENR FOY.
 - OSCAR HENDRICKS.



BOB BRAY, WIFE ANNIE AND TWO CHILDREN, I Bray Was a Prominent Man of the Palos Community and First Six Dead Bodies Recovered From the Mine at 6:05

Felix Drennen Probab Saddest Man In The

General Manager of Mines Almost Heartbroke Which Has Killed So Many Men, All of Were His Personal Friends.

Palos, May 6.—(Special.)—With all the sadness, sorrow and suffering among the friends and kin of the dead miners today in Palos there is not a sadder or more deeply affected man in the mining camp than the secretary and treasurer time I have spent w the evenings after w get off the train, he each day, the chil would greet me and ma and I have seen

the bodies will be recovered by Saturday night."

State Inspector James Hillhouse is now in charge of the work. He was relieved at 12 o'clock tonight by his assistant, Neal, who will have charge of the work until tomorrow noon, when they will change again. A new and fresh crew of rescuers enters the mine every two hours and the other comes out. In this way the men are kept fresh in the mine and the greatest possible speed is obtained. State Inspector Hillhouse has received a wire from State Inspector Shiflett of Tennessee, stating that if any aid was needed he would come at once.

The principal hindrance now to the rescue work is said to be the construction of new brattices where the old ones were blown out by the explosion.

Explosion in No. 3 Entry

The officials now claim that according to the condition of the men found in No. 3 entry this is where the explosion occurred. The men taken from this heading were badly charred and mangled.

The condition of the dead as they are brought from the mine is deceiving. The blood from their noses and mouths and the black damp on their faces give them the appearance of being charred and mangled. When the bodies are cleaned and prepared for burial by the undertakers, however, they look very well.

Two white bodies were recovered at 1 o'clock today. They were Martin Burriel and Elbert Connelly. Three men, Will Bankhead, negro engineer in the mine, and two other unknown bodies were found in the fourth entry at 1:30 o'clock. One was a trapper and the other a driver. The rescue work will continue all night and continually from now on until the bodies are all recovered. This makes 15 bodies recovered up to date, 10 white and 5 black.

Work Progresses Slowly

The rescue work at No. 3 is progressing very slowly on account of cave-ins that shut the dead bodies of the miners off from the rescuers. There is no way to estimate the extent of these obstructions, but it is now claimed by officials that the rescue work will last for three or four days. Several men were slightly overcome by the damp yesterday, but none seriously, and it is supposed that the pumps have drawn all of the afterdamp out of the mine.

The first car entered the mine this morning at 4:15 o'clock and returned at 5:05 o'clock with eight bodies, seven white men and one negro. The second trip was detained on account of work which had to be done inside the mine and did not enter until 3 o'clock.

They came out at 4 o'clock with six bodies, two white and four negroes.

Mrs. Bray's Sorrow

Among the first to be recovered was Bob Bray. Bray has a wife and two children. Mrs. Bray was at the mine this morning before daylight crying and almost going into hysterics. When the first cars came across the bridge and were unloaded into the improvised morgue Mrs. Bray learned that her husband was one of the rescued dead. She got down on her knees and prayed that she be allowed to see her husband. Fearing that she would faint at the sight of the mangled and

◆ ELBERT PRINCE,
◆ JOHN ADAMS,
◆ GEORGE EVENS,
◆ IKE COOPER.

RED CROSS FUNDS COMING RAPIDLY

The Red Cross relief fund grew rapidly yesterday. Checks may be sent directly to W. H. Manley, treasurer, or can be sent to Mr. Manley through The Age-Herald. The treasurer received the following cash yesterday.

Mrs. Margaret S. Rhodes.....	\$25
Highland Bakery Co.....	10
Nat D. Smith	10
Ben S. Theiss	10
Cash	10
West End Mission Sunday school.....	10
R. C. Foster	5
C. F. and J. F. White and R. S. Nelson	3
Age-Herald	25
Other contributions acknowledged but not yet in Mr. Manley's hands are as follows:	
The Birmingham News	\$50
Fred M. Jackson	50
Frank S. White	100
Birmingham Ledger	50



BEN KINCANNON
One of the dead miners. He had wife and two children, a 56-year-old mother and an adopted orphan child dependent upon him



ANNIE HANCOCK
One-year-old daughter of Bert Hancock, who was killed in mine and leaves a wife and four children.

rests. Standing in the door of the mine commissary this morning, tears stealing into his kind gray eyes, his big shoulders shaking with emotion and sobs in his voice, he told of his sorrow.

"We cannot understand the power of the Almighty," he said. "We will possibly never know how or why this terrible disaster has befallen us and taken from this community forever the ones held most dear in the hearts of miners' wives and children. I can do nothing. Oh, if I only could. I have tried to sleep, but there is no sleep for me until this is all over. I do not live here, but have been here almost every day for the last year or two. I knew every one of the boys and loved them all. Many a jolly

papas from silent accusing the murder. They don't know their love for it once was thing to help row. But I can't papas and brother eye, and nothing earth will ever for their wives daily break storms and know bewildered. Eyesights meet thoughts keep can do nothing lence in the works of the wisdom."

Some Freakish Features Of Terrific Explosion

Three Cartridges In Goolsby's Pocket Disclosed Wood Pierces Trestle On Bridge— and Foliage All Parched

BY CHARLES FELL

Palos, May 6.—(Special.)—Evidences of the violence of the explosion at the Palos mines, which snuffed out the lives of more than 100 men, are everywhere about the mouth of the slope. It is stated by Deputy Sheriff Kennybrook that the explosion could be heard at Banner, nine miles distant from Palos, and the shock was felt at points much further away.

From all indications the flames from the interior spread greatly after bursting forth from the mouth of the mine. The leaves on all trees and bushes 50 feet on each side of the opening and for a distance of 200 feet forward are all parched and brown from the terrific heat to which they were exposed.

The fierceness of the heat was also indicated yesterday when an examination of the personal effects of Sam Goolsby, the justice of the peace who was killed on the bridge, was made. Goolsby carried two revolvers and three of the cartridges

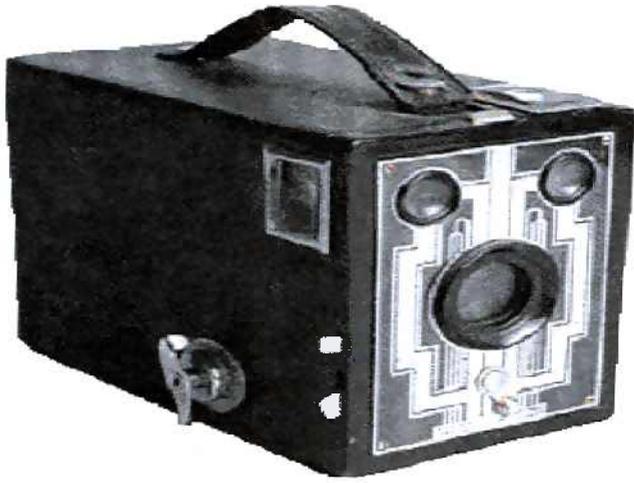
which they were discharged. Two freaks are being of the mine, the Southern extending over the ing coal over the collected on the blowing the dust the mine, charred formed a perfect back side of all. The ends of the point directly of wood about at one end was of the cross-ties difficult for a man. The trestle work point over the in distance of 200 feet by rocks and entrance to the mine were blown pieces of timber river.

BEREAVED WOMEN PREPARE FOOD FOR RESCUE

Palos, May 6.—(Special.)—Palos this morning and Palos yesterday morning are two sadly different pictures. Only a little more than 24 hours ago something over 100 men—nobody is able to determine exactly the number—left their little homes and their happy families on the sides of the shady hills of western Jefferson county. They went out to earn their daily bread, toilers, but light-hearted, and they penetrated the subterranean depths. They went down to claim a portion of Mother Earth's mineral treasure, but a heavy toll was taken for what had already been claimed by the miners.

When the explosion occurred yesterday afternoon Palos was at first startled. It did not take long, however, for the truth to dawn upon those who had loved ones in the newly created inferno. There was a general rush for the slope and all Palos was dumfounded, and fear quickly spread

over the little town soon turned into hearts and tears grew frantic and hearted men stood by hopeless, but all thing. And this tion continued for heroes-to-be wait Today, however of strong hearts Everybody appears worst has happily resolved heartrending at the mine every 1 less bodies of t day before. change. The there can



Photographs

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

a
b
c
d
e
f
g
h
i
j
k
l



Coked Dust outbye corner Crosscut facing inbye
2nd Aircourse Palos Mine Ala

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

a

b

c

d

e

f

g

h

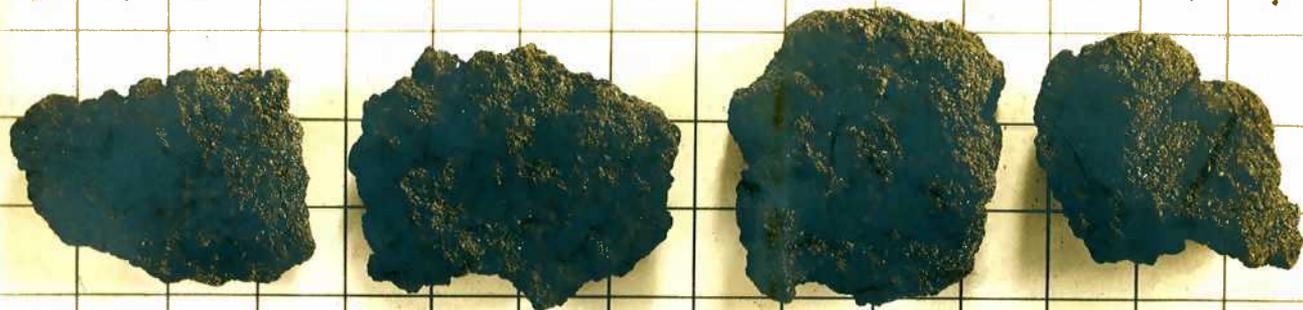
i

j

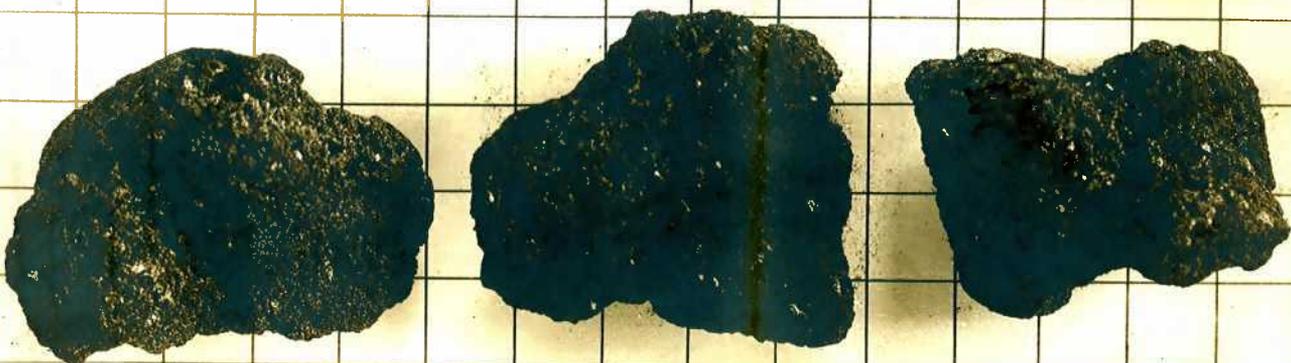
k

l

m



*Coked Dust from Prop 4th Right opposite No 14 Room
Palos Mine Ala*

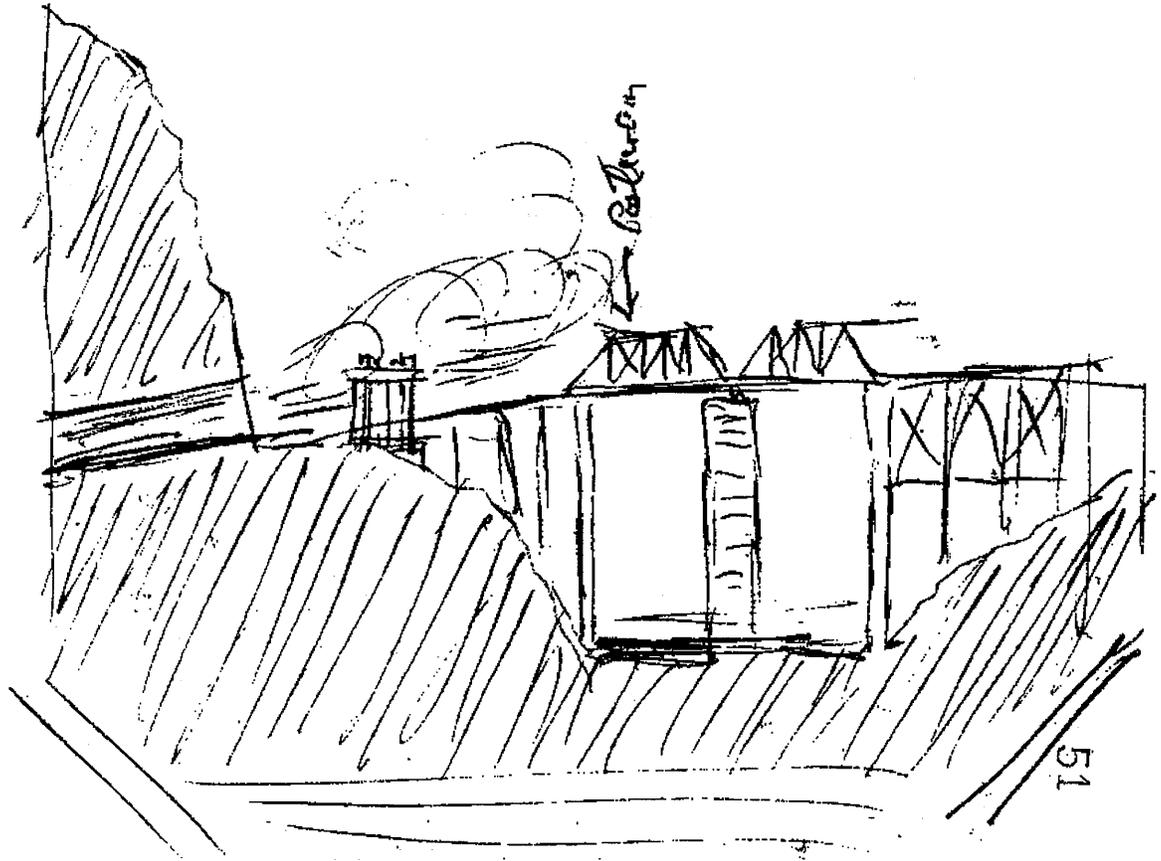


*Coked Road Dust inbye Door Frame 4th Right Entry
Palos Mine Ala.*



Notes

PALOS (ALA)
MINE EXPLOSION MAY 5, 1910
NOTES OF INVESTIGATION
G. W. Rice



Mo & Frost

Blue 24 0 Shots

Fall on 3 to 7 shots per night

Grant Howell
729 Brass Jan
Beverly Hills

' Palos Mine May 6, 1910

Explosion occurred May 5 about 1-28 P.M.
with 105 to 120 men in the mine

The mine is opened by a slope
The coal dips into the hill south
from 2 or 3° to 5° or 6°

Tail rope haulage -

The slope enters the south bluff of
the Little Warrior River about 60
feet above same -

Immediately above mouth, the
sandstone roof is exposed

20 feet massive sandstone

then 5 feet softer sandstone

above that 25 feet of shale ss.

then 40 or 50 feet of thin
bedded ss.

2

Bed main is called The big seam - It has a rock binder $1\frac{1}{2}$ feet thick in middle called the middleman -

The total seam at this point is 4 to 5 feet thick

The main slope makes a 30° turn to left about 650 feet in, the total length of slope is 3300 feet - There are 7 lefts and rights - which are drawn level - The 2 Left and 2 Right are the first worked

Several of these headings have branches angling off -

Rooms are chiefly turned up the hill, but where ^{the} grade flattens they are turned down -

3) Some men had come out of the mine at noon -

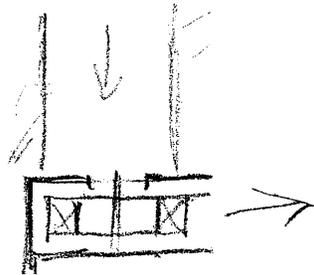
The explosion occurred at about 7.28 -

Flame shot out of the main slope and burned a man standing on the bridge, which carries the post-cars tracks across the river to the tipples -

This man was 100 feet distant he was mangled by flying debris, and badly burned, and of course killed -

The main slope was the intake, the exhaust fan which stood at the mouth of the parallel slope, was damaged and part of the casing blown out but was

4) soon repaired and started



Supt Drumm in Agethald
is reported as saying the
explosion occurred at 1-25
exactly - I could not see
top of flames, but they must
have been 300 feet high. I think
it was a gas explosion.

Only one report, - Not from blasting
We allow blasts at only 12 noon
1 PM & 4-30 PM.

The mine has been shut down
for a week.

The man-way to the left
of the fan connects, 150 feet inside.
It has four doors which were undamaged

5)

Brattening with canvas at the cross-cuts, was begun at once and by the time we arrived about 3-30 had been carried down to the 2nd left -

(Putledge & I)
we were asleep at Birmingham
We had been at Murlga all night & went to sleep at 12 noon and was awakened up at 2-15, dressed and was ready to go in auto. at 2-15 sp'l train left at 2-45 -

We could not use helmets till the Tennessee Coal & R.R. car arrived with their lights
Our electricians were burned out at Murlga -

6) When we arrived a party
of 3 Team-men and 1 local
man - entered mine in helmets.
One of these had an old
form of sewed pneumatic
tube - which turned over &
did not fit tight - He went
down where in the 2 left
and pulled the connection
from another helmet pipe - Both
men had to be rescued by
those without helmets.

We had held ourselves in
reserve, but were not called
upon - The use of the helmets
was abandoned - Meantime
the practicing had been going ^{on}



Truss skeleton
 Rails of bridge
 burned to 138
 from opening
 Paint on bridge
 blistered for
 186 from opening

Mail carrier
 burned

48
 90

 138

Stringers facing
 opening badly
 scarred, but
 not burned -
 opposite side of the
 group of 3 stringers
 (set close together)
 much loose coke
 All ties burned
 bottoms & sides
 of the 15' span
 opposite opening



7) 3 bodies, considerably burned
were found, face down near
the head of the 2nd left,
when they were pulling a
pillar - They were on the
entry within 20 feet of one another.

Rutledge & I went into mine
about 8 o'clock and I carried
in fuel motor to 2nd left
where two doctors established
headquarters - Later the camp
brattens across the main slope
just below the 2nd left (after
exploration of latter to face)
was torn away and brattens
erected down the slope - I
finally joined the party

8

and marked locations of
4, 5, 6 & 7th bodies.

4th - a white man on
back in slope, a short
distance above 3rd - burned
only slightly, this portion of
cutting appears wet

5th ^{can back out by 3rd left}
at frog, on track to third ~~below 4th~~

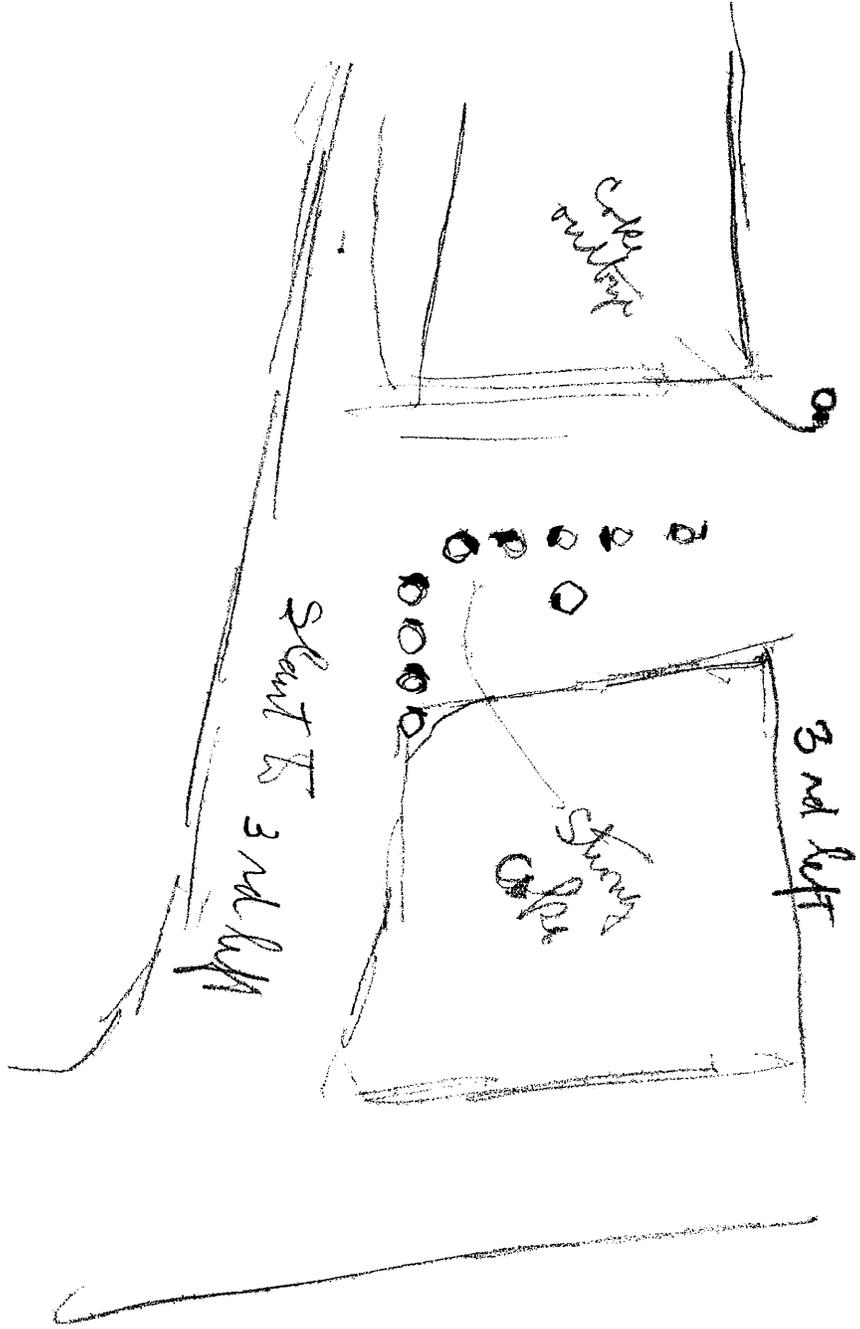
6th ^{man in middle of party}
triangle at fork of 3rd left
lies on right side

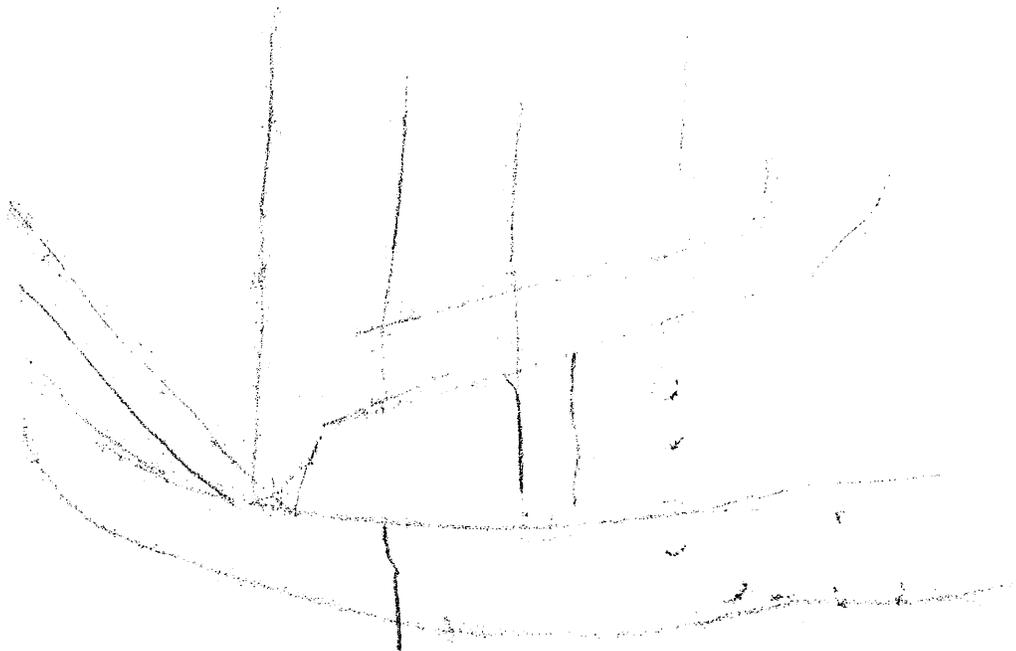
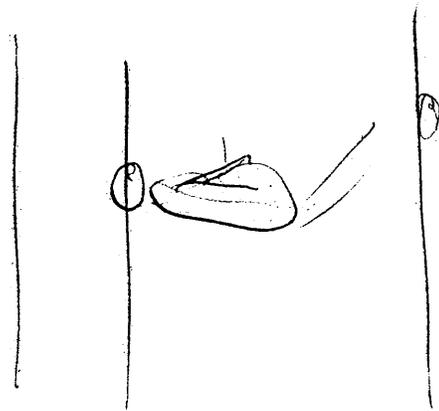
7th on 3rd left, head against
rib blown thru -

8th a trapper just beyond 7
could not get to at time
account of black damp

9 left near midnight, while
they were erecting a brattice
across main slope

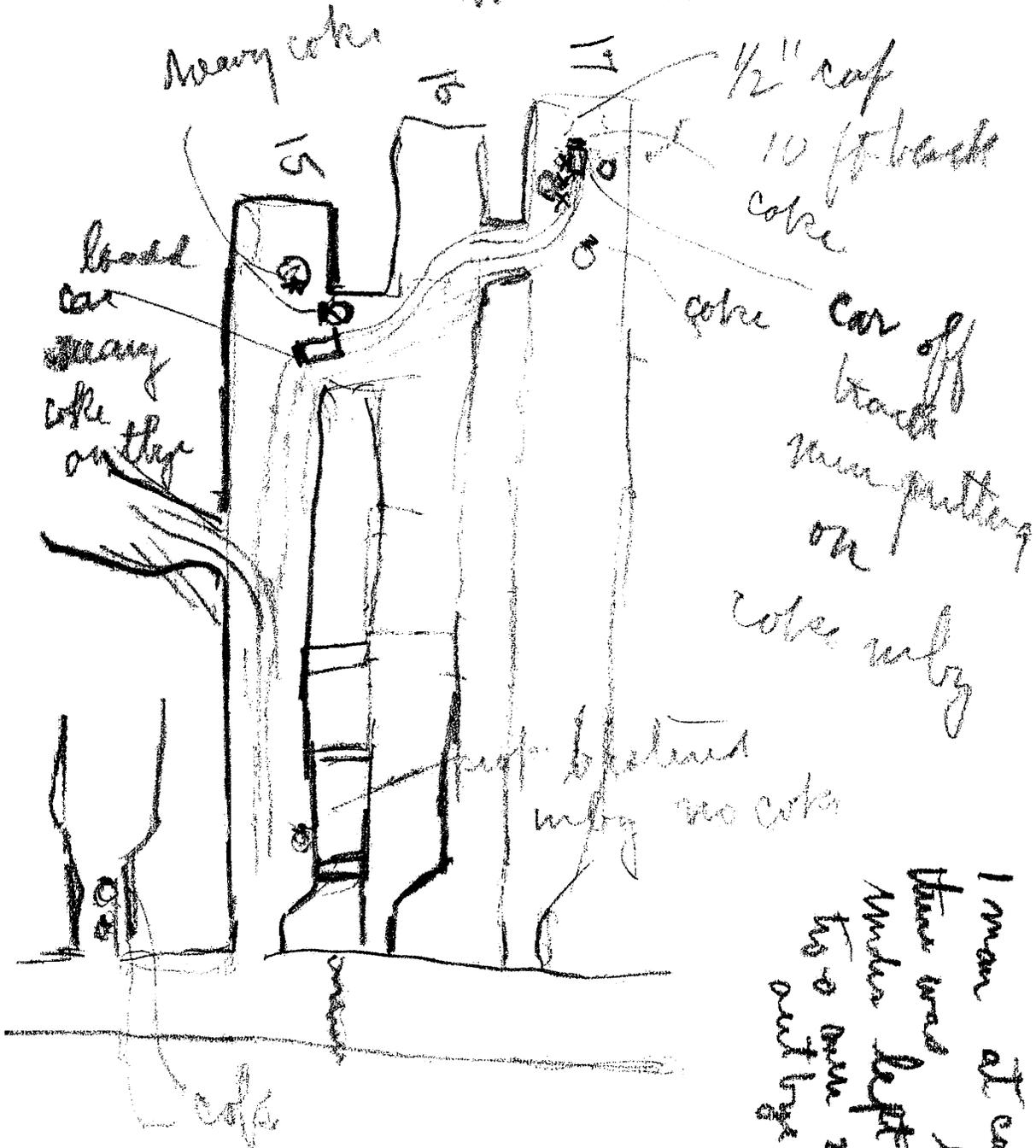
9)





10)

at mouth of 3rd Left slant
two cars off East track



1 man at car when
there was fewer
men left side
to a one 20 feet
out by

11)

Going out 3 left
Coke on ^{outbye} prop on left side
between 10 & 14 room

At old door frame no
door heavy coke on outbye
side, also on props just
further

Further out near old double
frames coke a little outbye
on post coke outbye

another ~~very heavy~~ frames
outbye, on ^S side & top
Post duty

12)

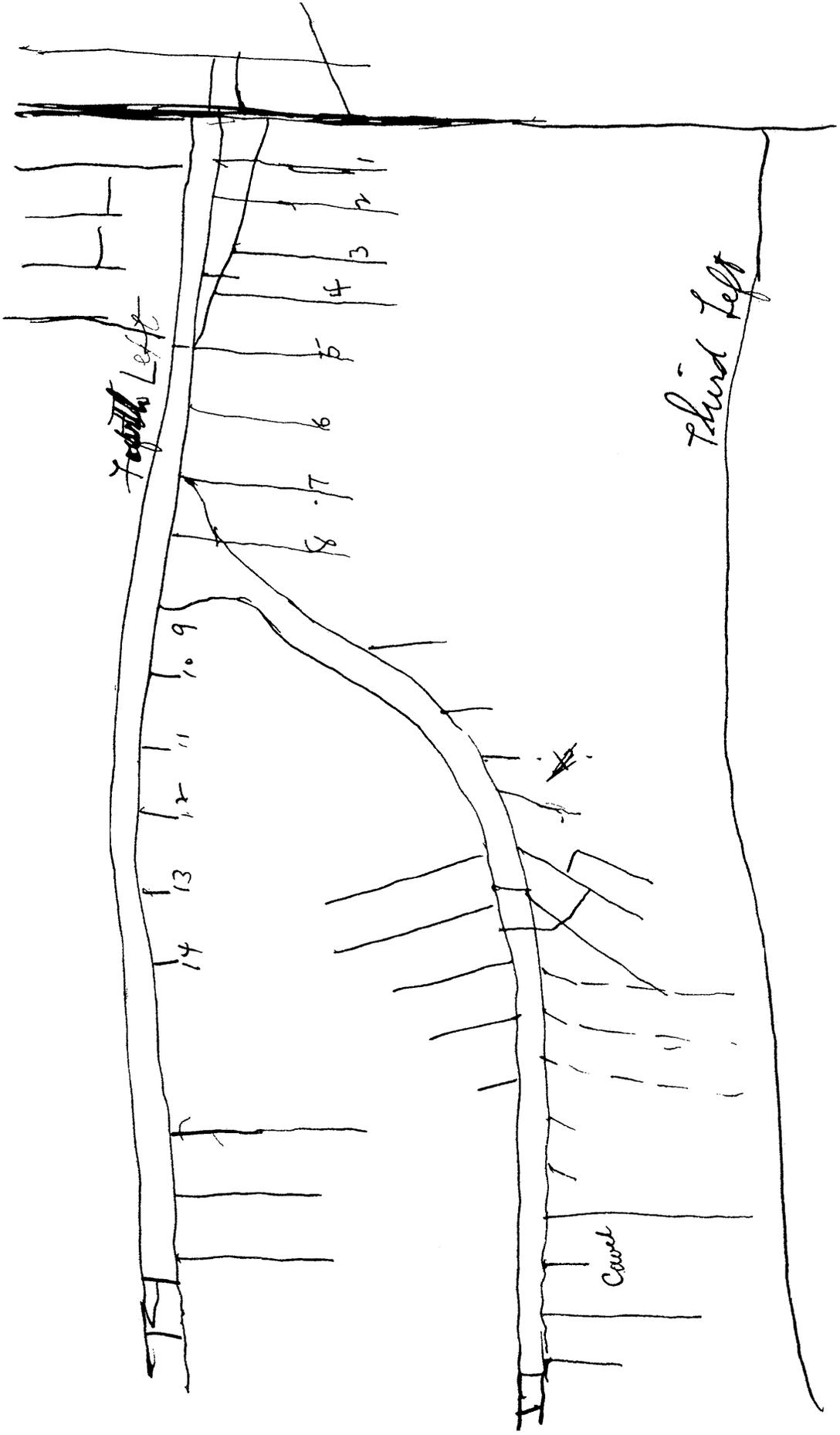
In 2nd left, went up into
old rooms from no 1, no gas
considerable coke chiefly in by

In 2nd left entry, went up
to 9 Room, on door frame
strong coke in by none out by
also coke in by on a
number of props

Fan current in opp. 9 Room
some damp smell, no gas cap

Note - above rooms in by
junction slant & entry

Trp loaded cars in slant
a few at back derailed
no coke



Fourth Left

Third Left

Cove

10 9

11

12

13

14

8 7

6

5

4

3

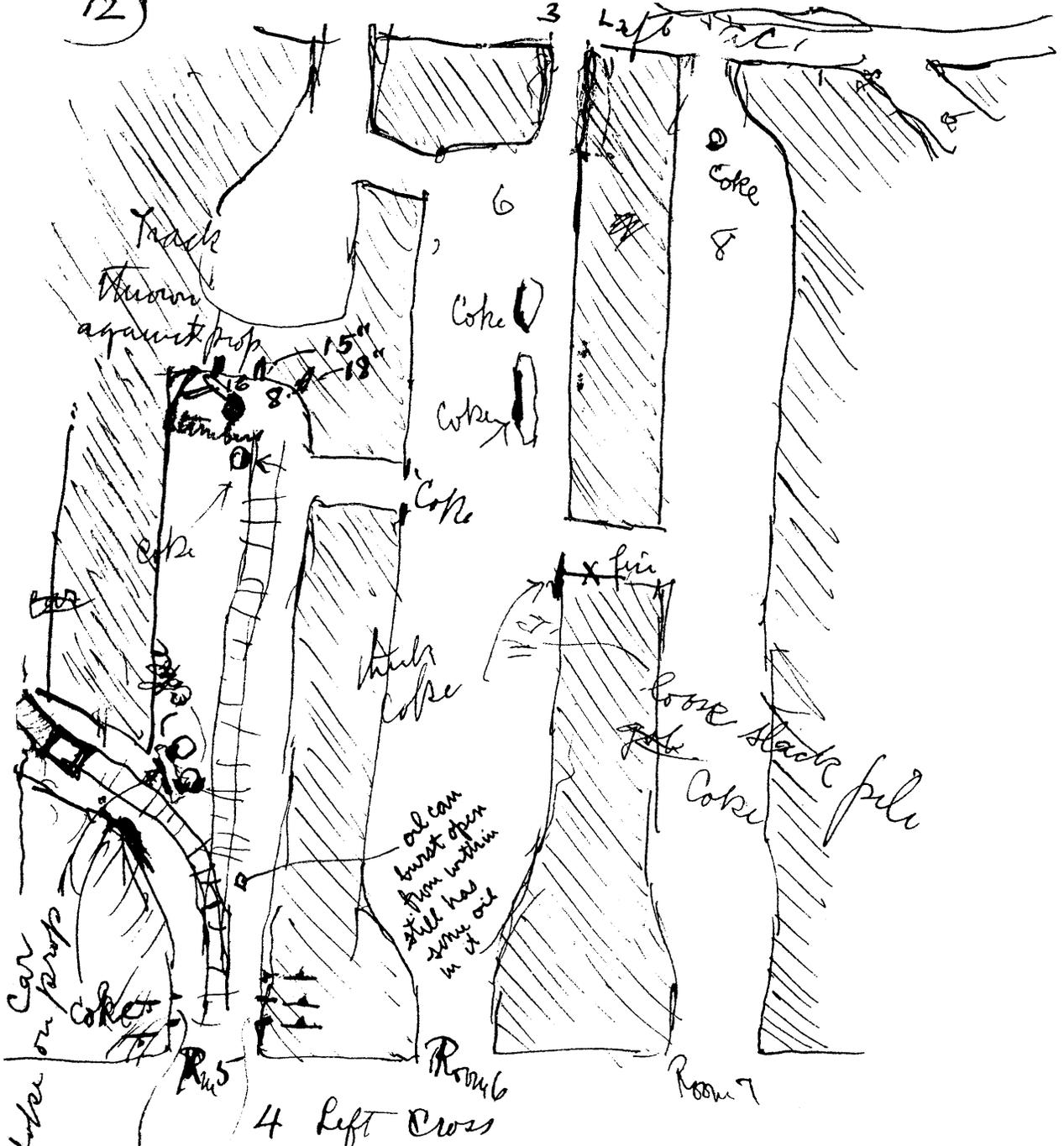
2

1

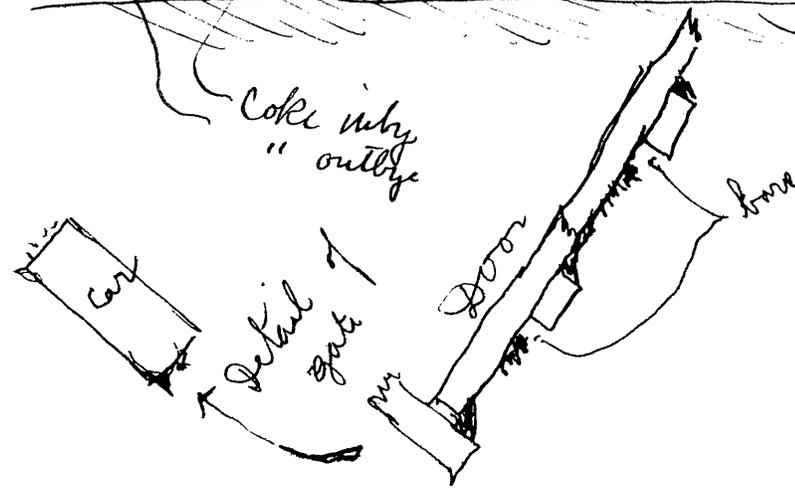
12)

3

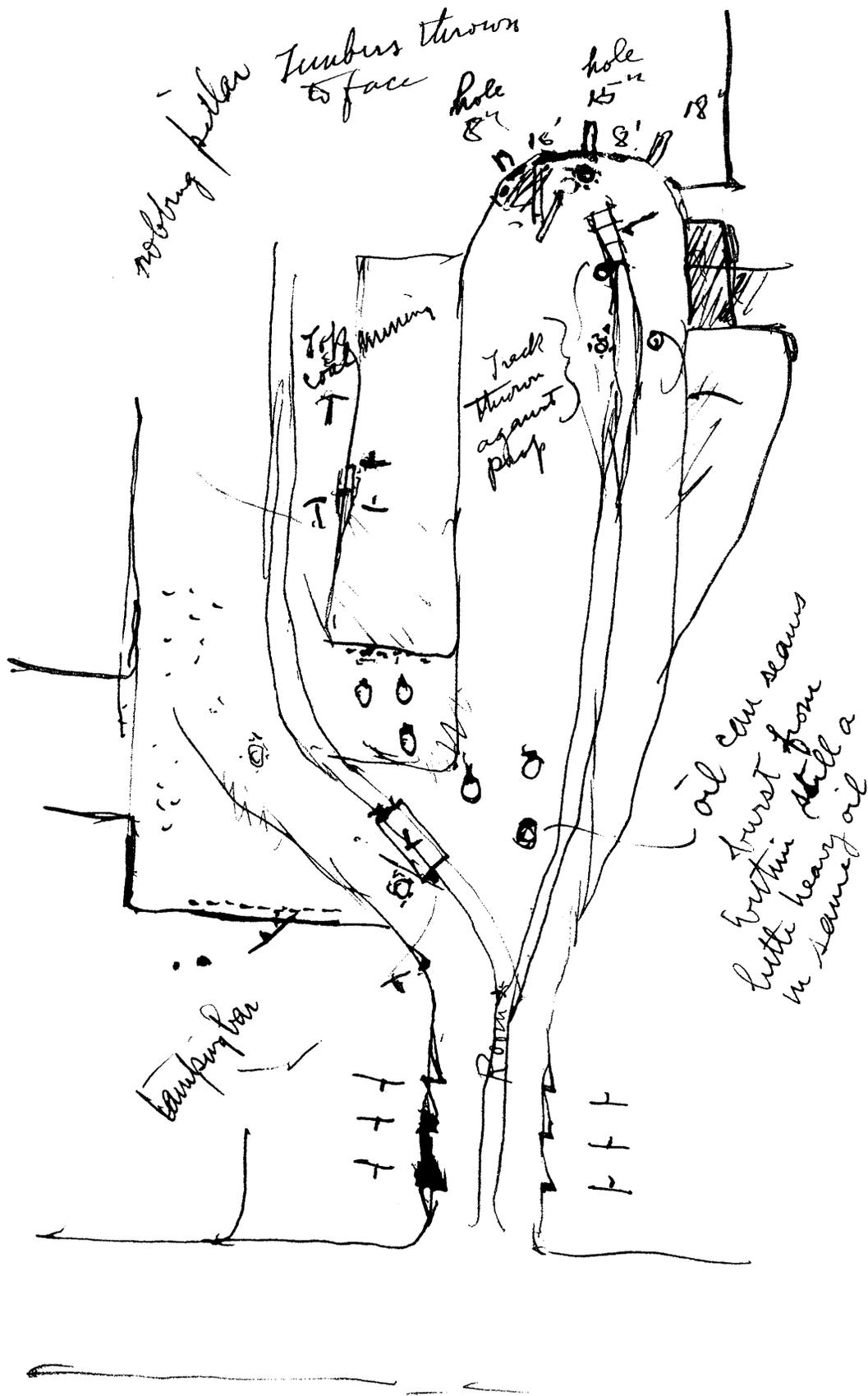
Left side



4 Left Cross



In room A see over



R2 Man, ^{negro} on face, at left in
right leg partly on fall
looks as if fall which extends
to body, had fallen before man
got there - Blood came from
ears, from concussion -

Hair ~~not~~ not noticeably scorched
but blister behind ear,

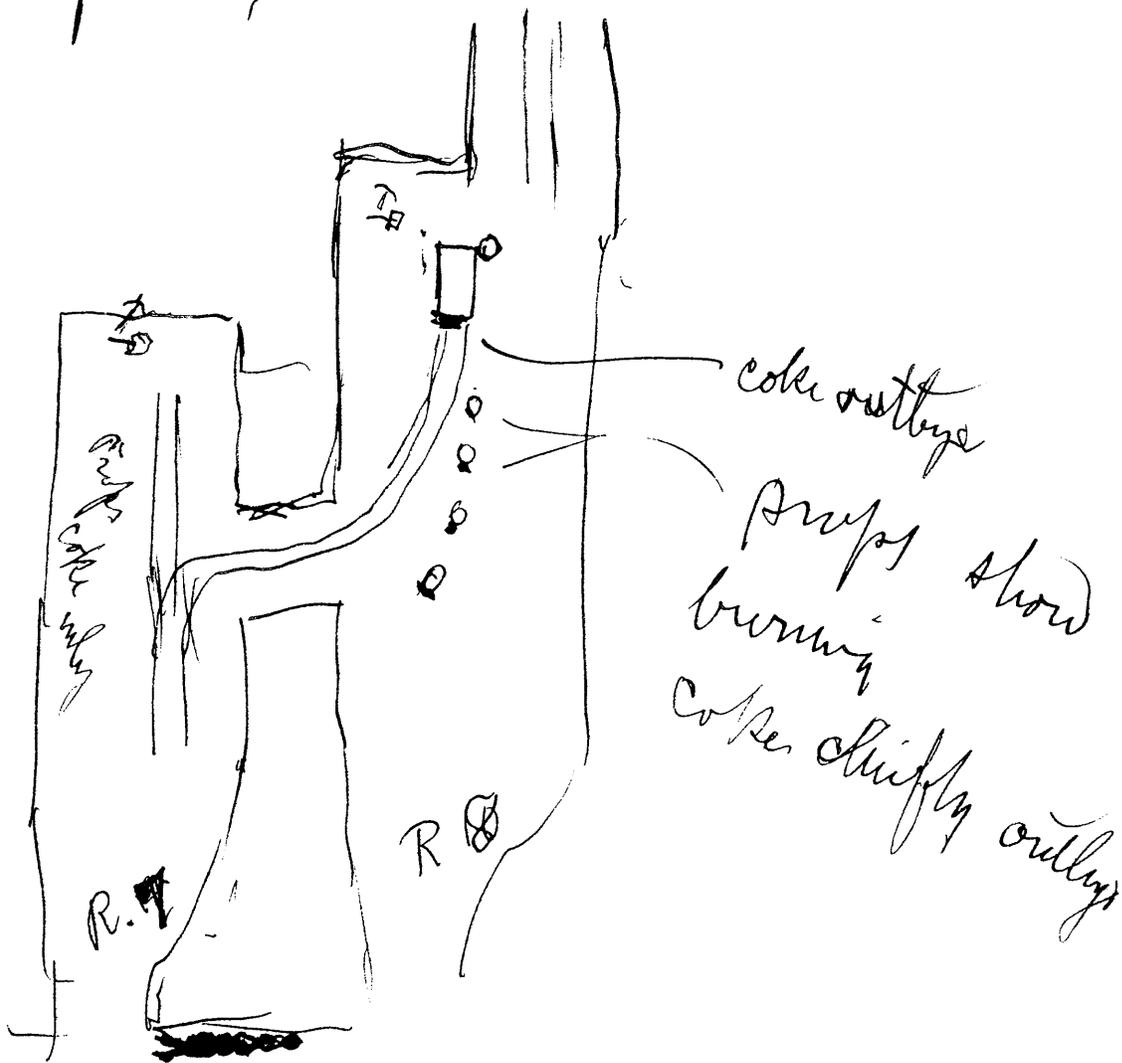
another negro immediately behind it
also on face, headed in by -

doubtful if hair singed

Just in by room 8



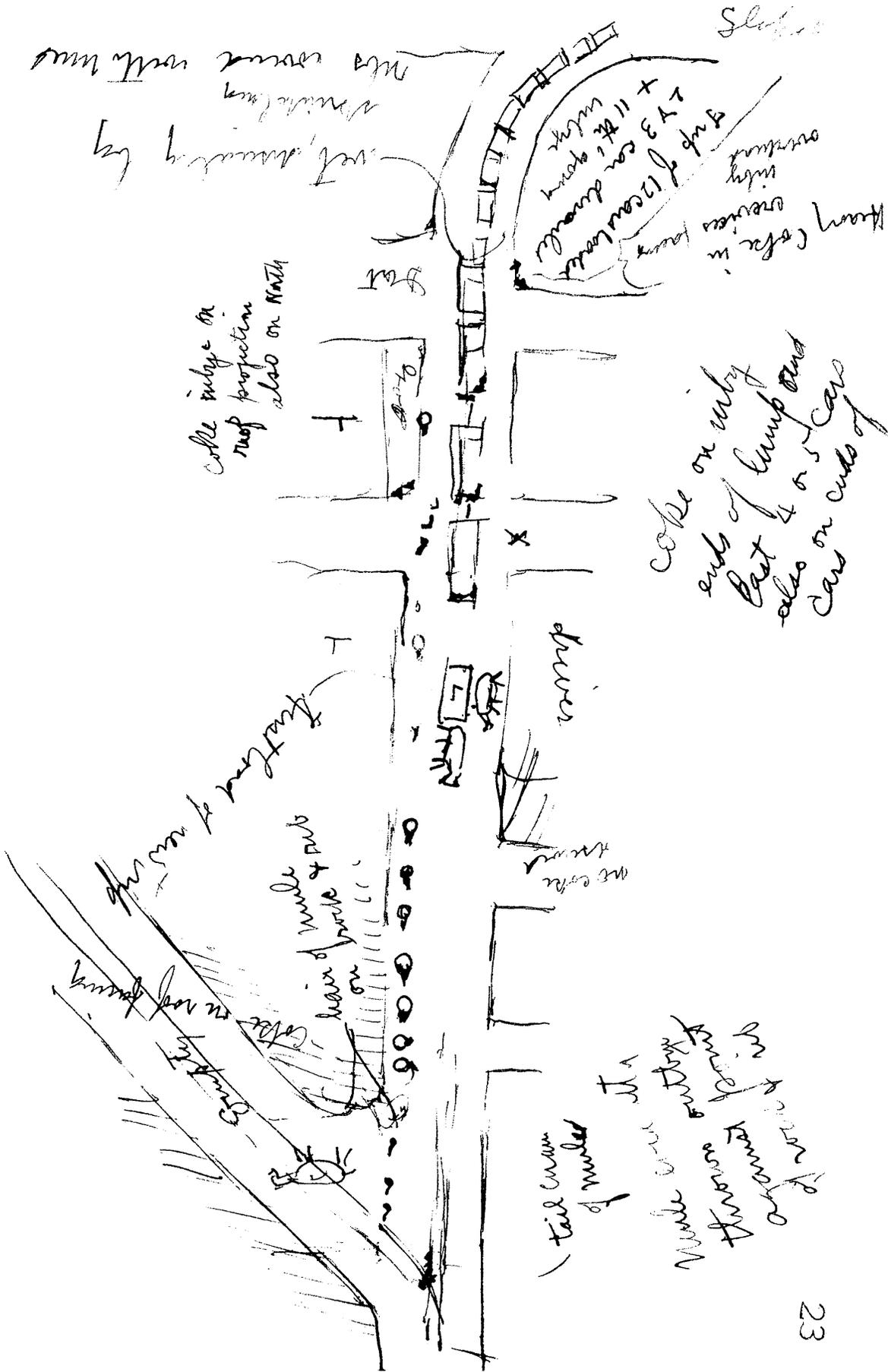
14) Room 9 (?) outtype R (+ Z)
 Coke largely, mby, pick
 in undercutting, shovel just
 outtype
 x off Room off this, leads to
 Room 10, loaded car at
 face,

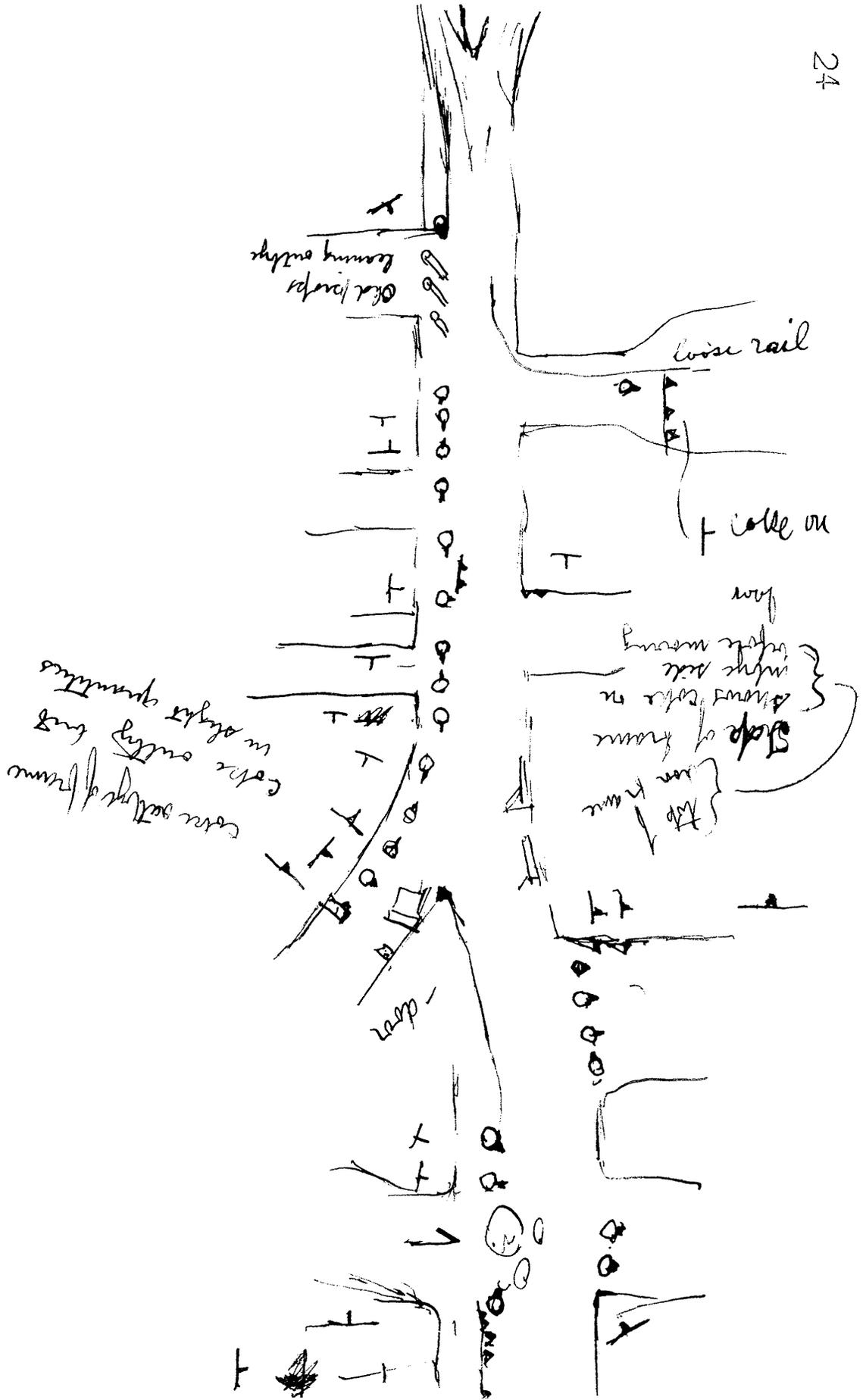


R 34.4^{two} Negroes on ~~right side~~ ~~side~~ ~~back~~ ~~back~~



~~R 5~~ ^{negro}
 just mby mouth of Room 10
 on right side headed mby
 ears burned - ~~to~~ & hair ^{on} legs -

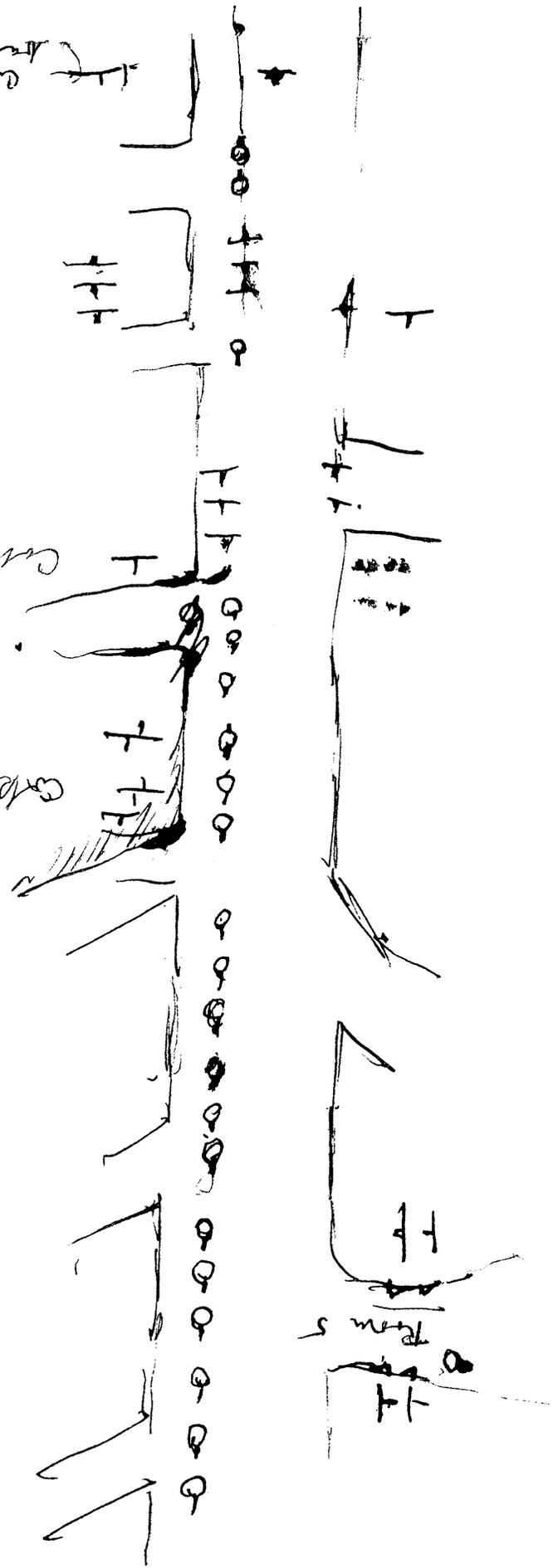




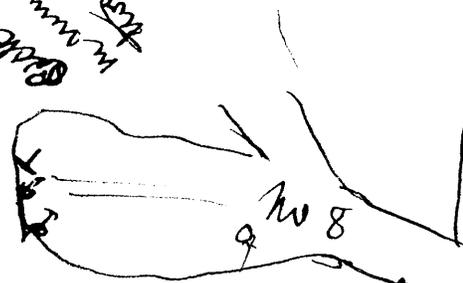
the other in study
the other in study

the other in study

the other in study



Back
to
ground
at
face

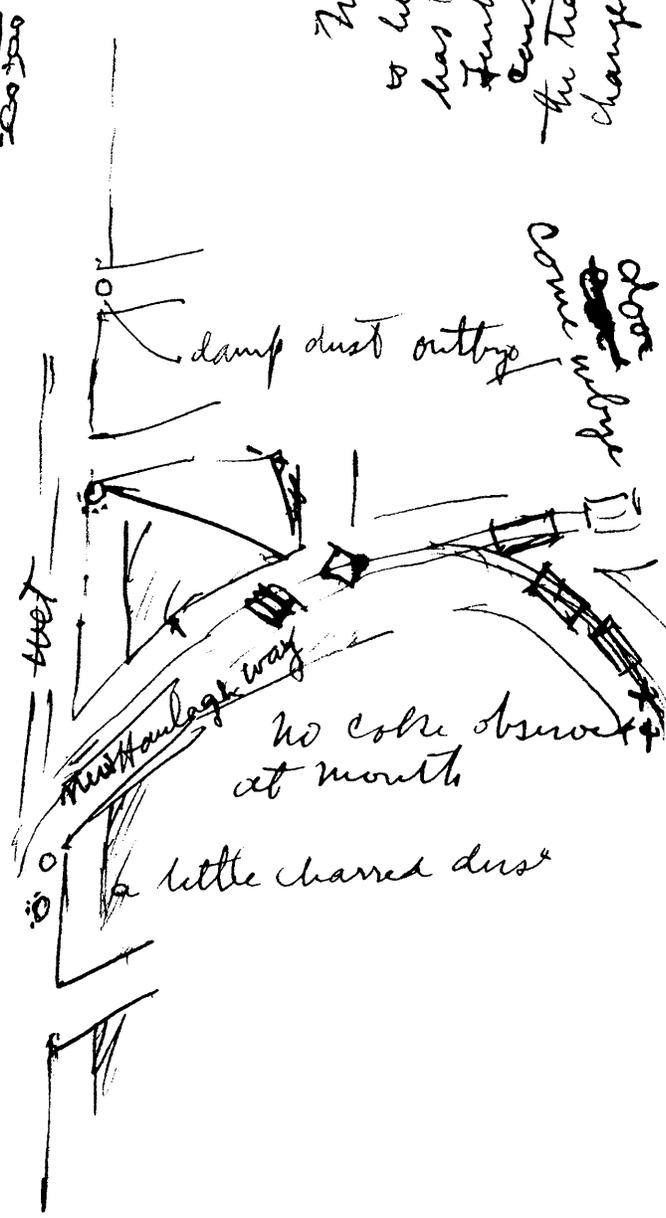


Shirt & Coat Room
light coke

Ad room
no heavy coke

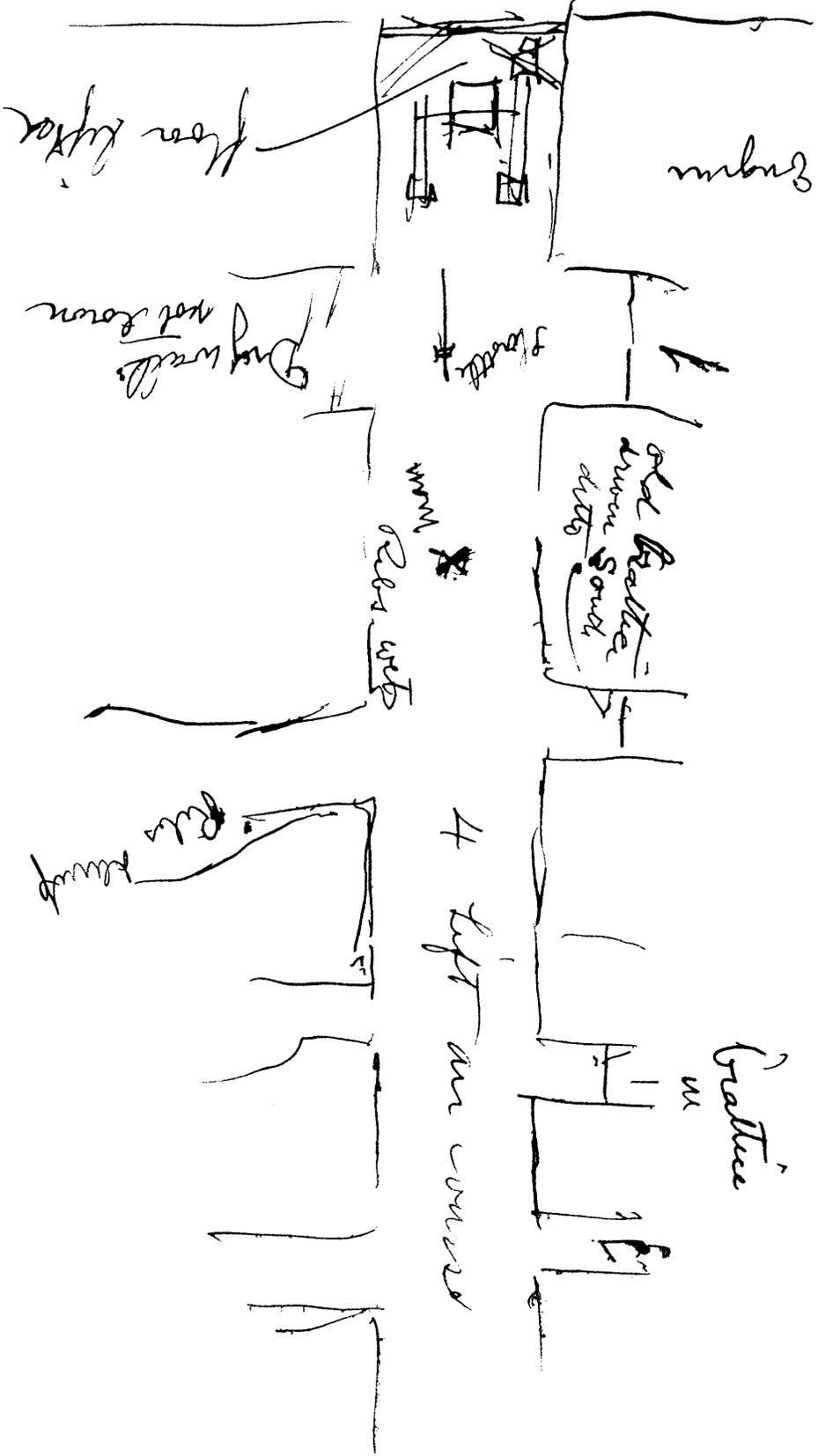
Room
not there

Room



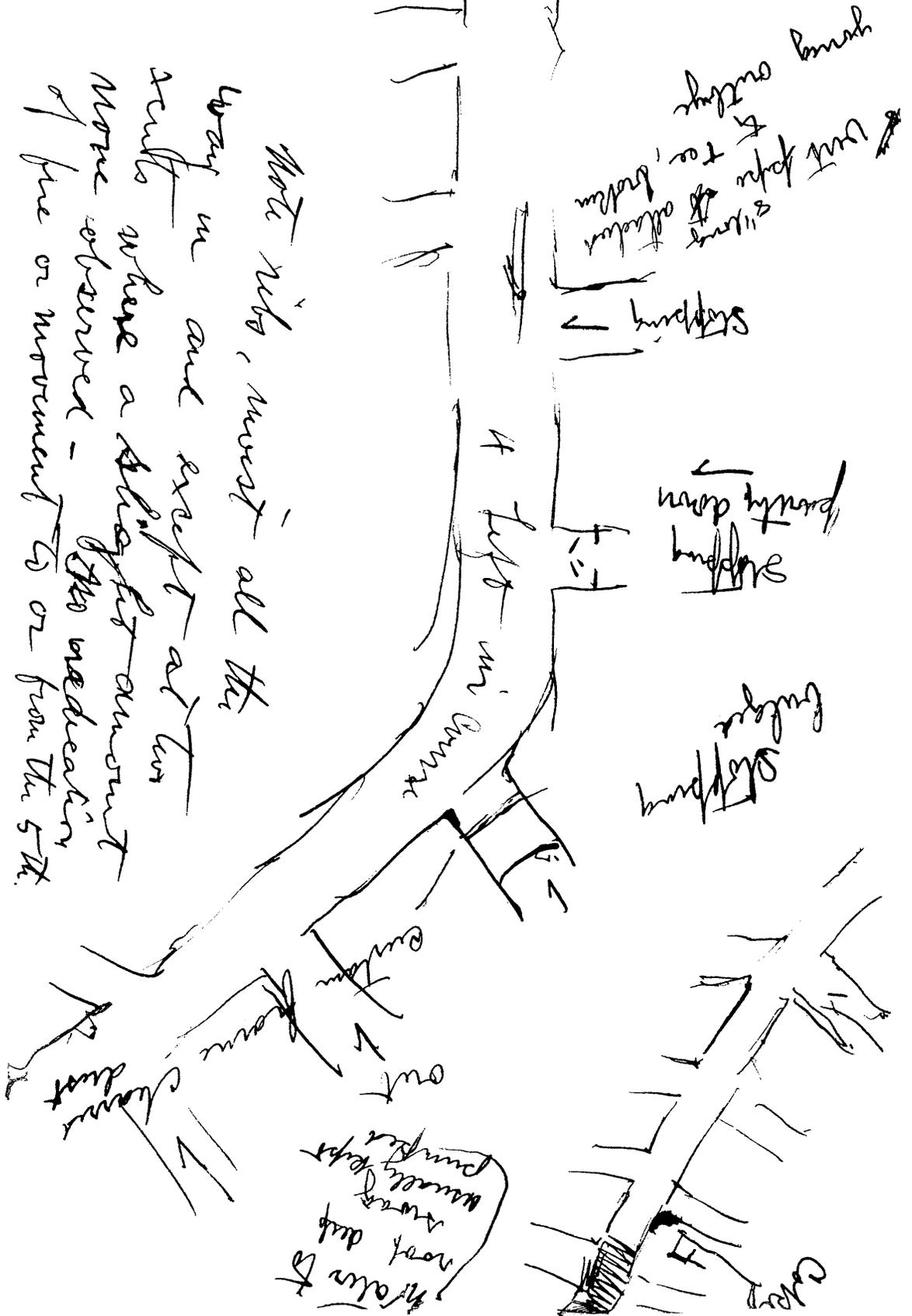
new haulage way - there
 is little coke at mouth, & door
 has been forced only 30 feet or 30
 feet from along several
 cars cast forced back
 the track - coke in byn - then
 changes to outbye - then

4 Left air course
Main Slope

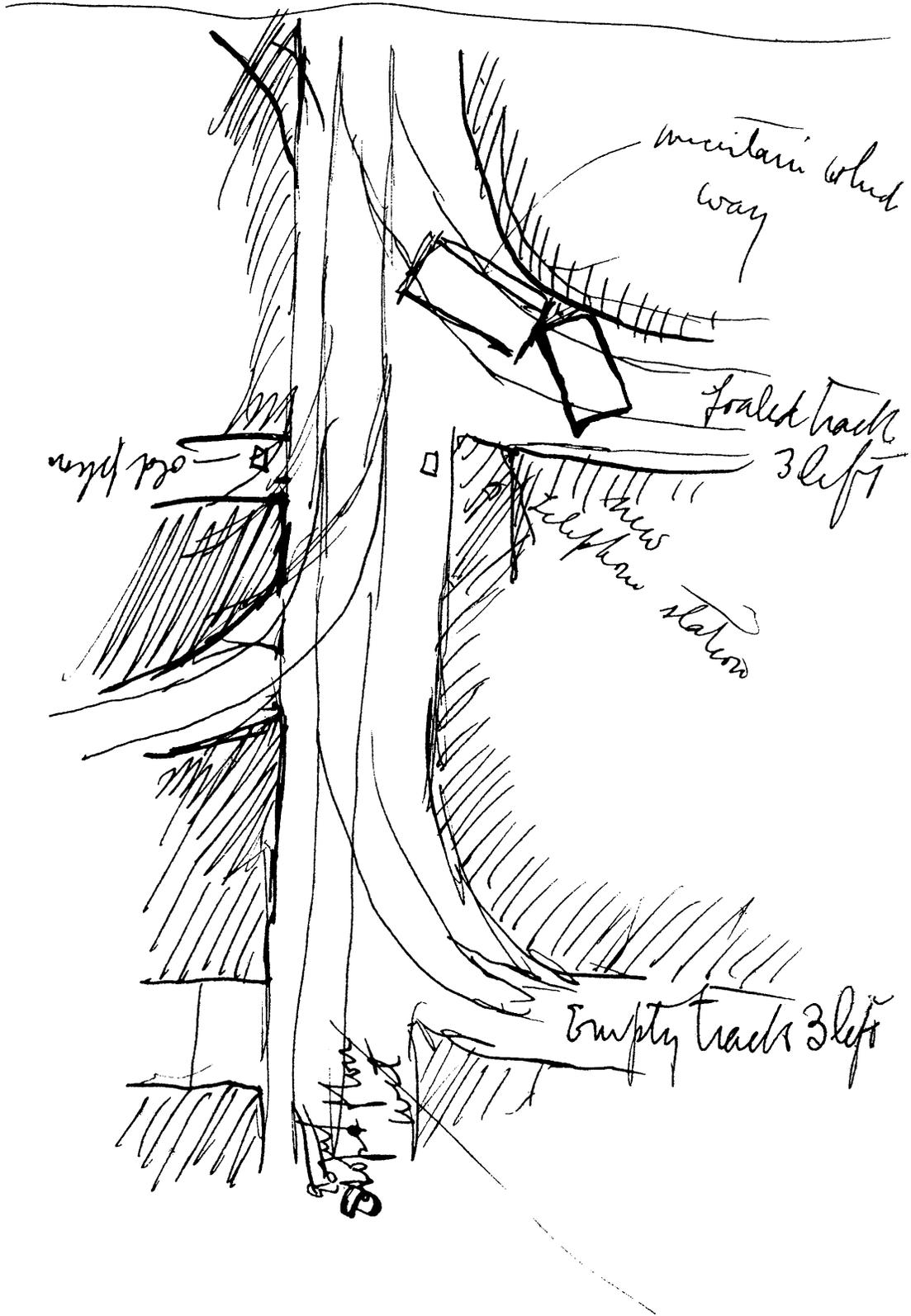


4 Left Air Course Continues

28



18
Coke on prop, facing ~~stair~~ 1st x out outlay
Track
loaded to 3 left



3 R Left empty

old frame covered
old frame shown in the

old bank
bank shifting
bank shown

keep
the bank as if
separated from the
bank out side
bank shown E
bank

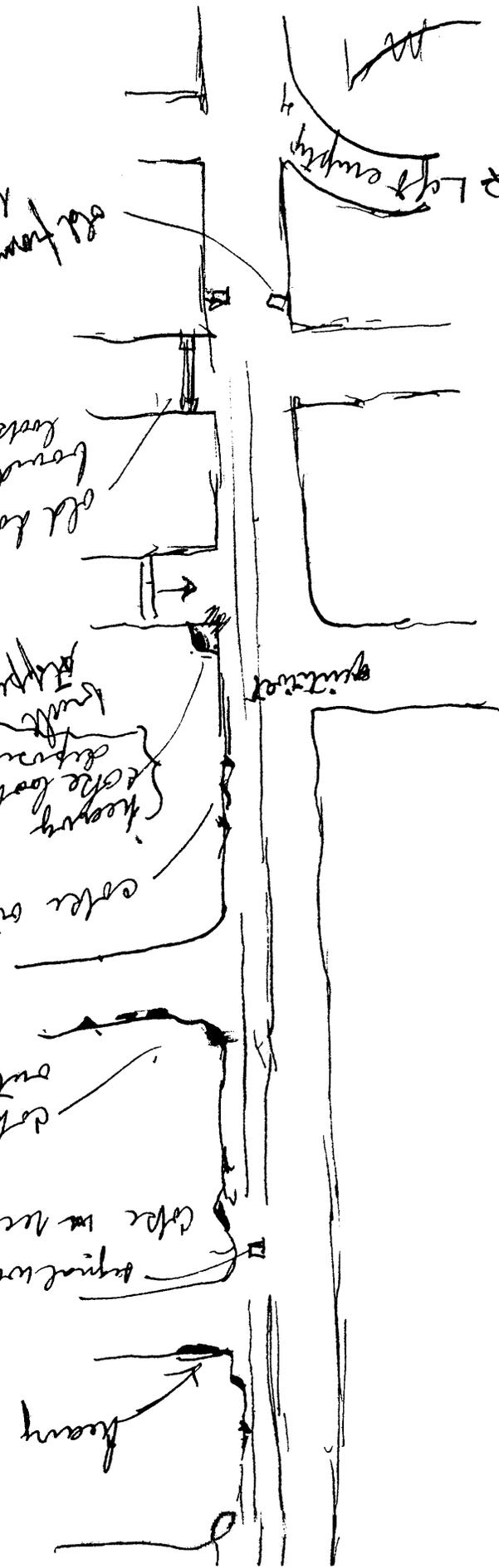
water out by water
was

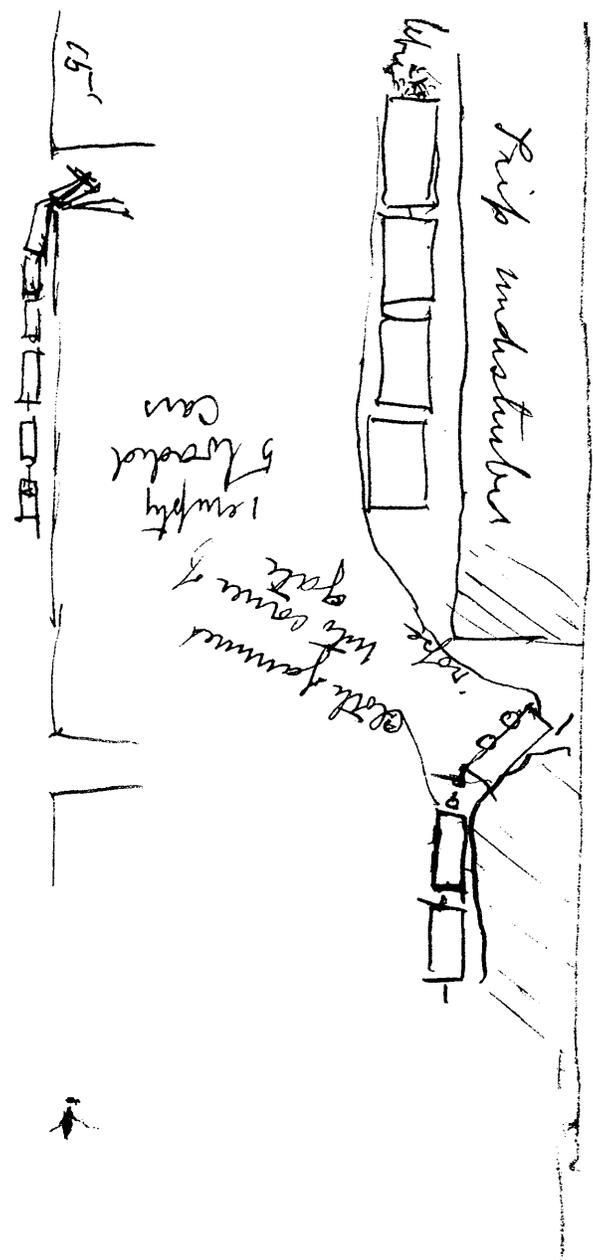
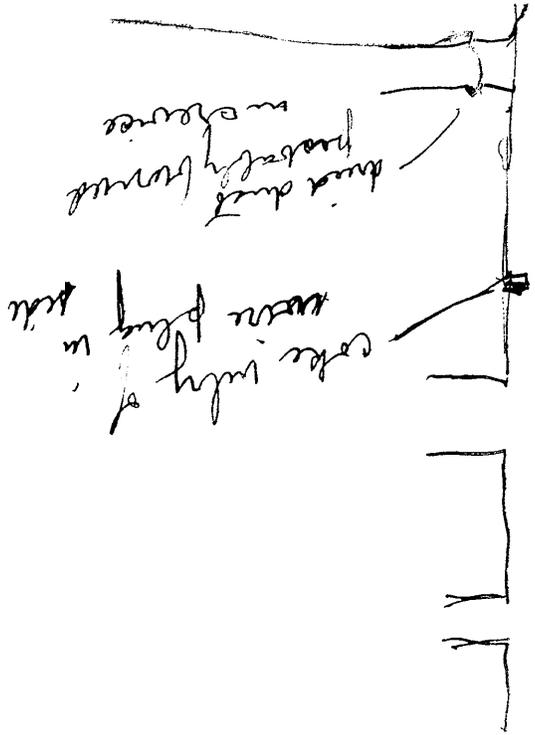
water
out by

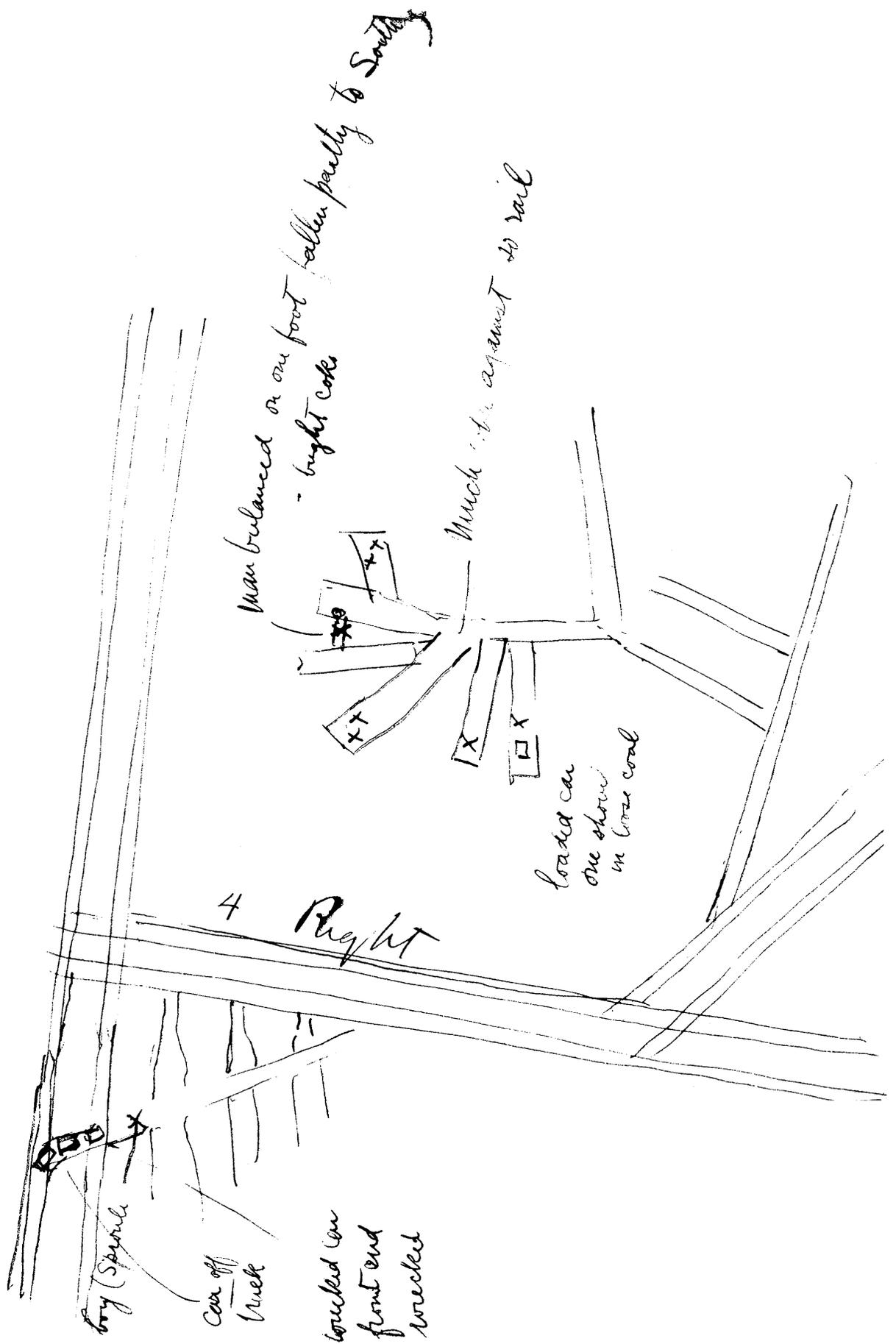
water in needed
water out by

heavy water

splitter







Man balanced on one foot fallen partly to South

- bright code

Much air against so rail

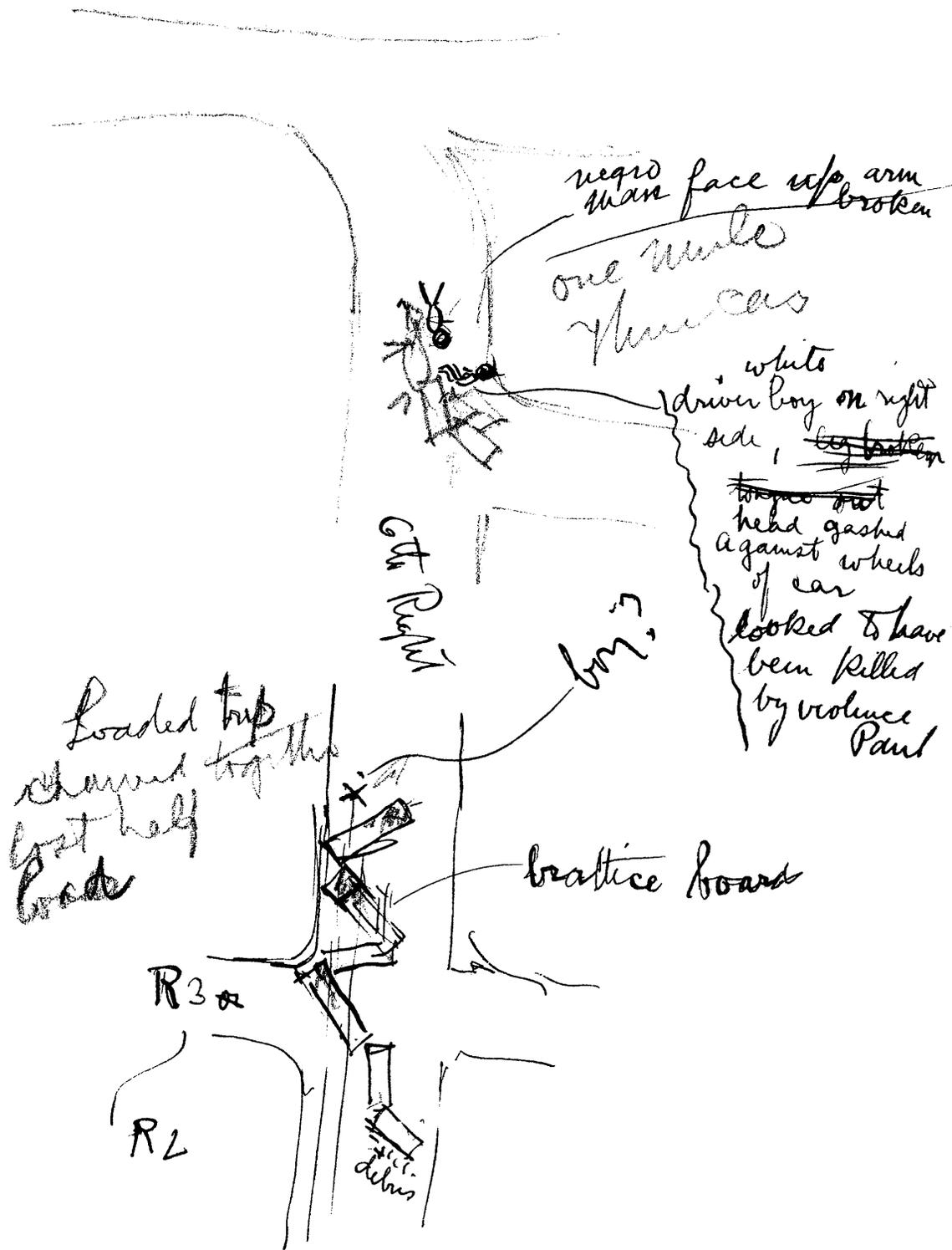
loaded car
one shown
in lower coal

4 Right

try (Spore)

Car off
Wreck

wrecked car
front end
wrecked



Mr Paul says at Mouth of 5 left
wrecked trip force appeared to be
sidewise coming from rooms, further
in the force seemed to be from south
Did not seem much once either
in or out -

@ the heading gas at bear
Props in by last room, out by ~~and~~
has coke in by side

Rm 13 gas &

Rm 12, props out, prop ~~into~~ out by
corner, has coke in by - gas -
coke on right rib - facing in by

Props at left coke in by

R 11 } Full of gas
 } Smells -

- Caving, bodies abt
120 feet at left - under falls

Post opp room 10, a little coke
out by - In room 9, coke in by bear
on props in wall

~~Room 9 sack of carbonto~~

Room 9 } Car on track
 } dump pail on car & one on left

1 Box open, at left of car
contains sack of carbonto #2
hot scotch, also box caps

Almost opp 9, heavy coke in by

Palos Coal & Coke Co
Palos P. O. Jefferson Co
Ala -

Gas Beard Mine Foreman
Melton B. Drennon Supt
Felix " G.M.
~~Wm~~ Otter Pres & Secy -

Explosion at 1.30
caused by man at fan
who ran in & shut
the

R 8, post at mouth coke
inby, next one both sides
Gas 40 feet from face -

~~R 7~~ ^{loaded} Cars just inbye Room 7
coupled together, the outbye car
is turned clear over

Debris on inby end of inbye car
It seems probable these cars
came from inbye, after first
jumping the track

R 7 heavy gas, box seats back

R 6 little gas; heavy fall
breakthrough curtains

bratties, to face in 6 undisturbed

R 5, at mouth posts wet
dust inby no coke

R 4 Caved, no gas -

R 3 ~~Area~~

Boy ~~finger~~ found 30
feet wby door frame
between 5 ^{vac} left door
on opp side

Boy not burned, only
cut on cheek

~~Claimed that finger
out ~~ALL~~~~

neck dislocated

James Baird, gives orders for
~~the~~ of dynamite, the day before
he had given an order for dynamite
to a man in 4th left -

Say they cant break the
middle rock ^{or middle man} without using
dynamite =

Found powder Cartridges
in Room 9 20 sticks, one stick
made up with a 4 x cap
and 20 inches fuse - fused
thru sticks $1\frac{1}{2}$ " from end

← abt 15 to 16" → 

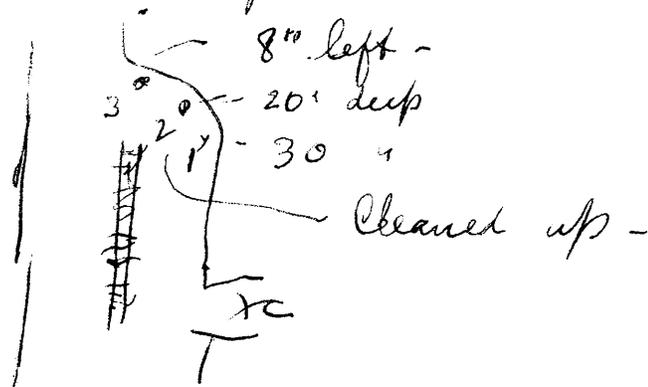
← 20" →
by measure

In 6th right all coal supported
to be cut with punch -

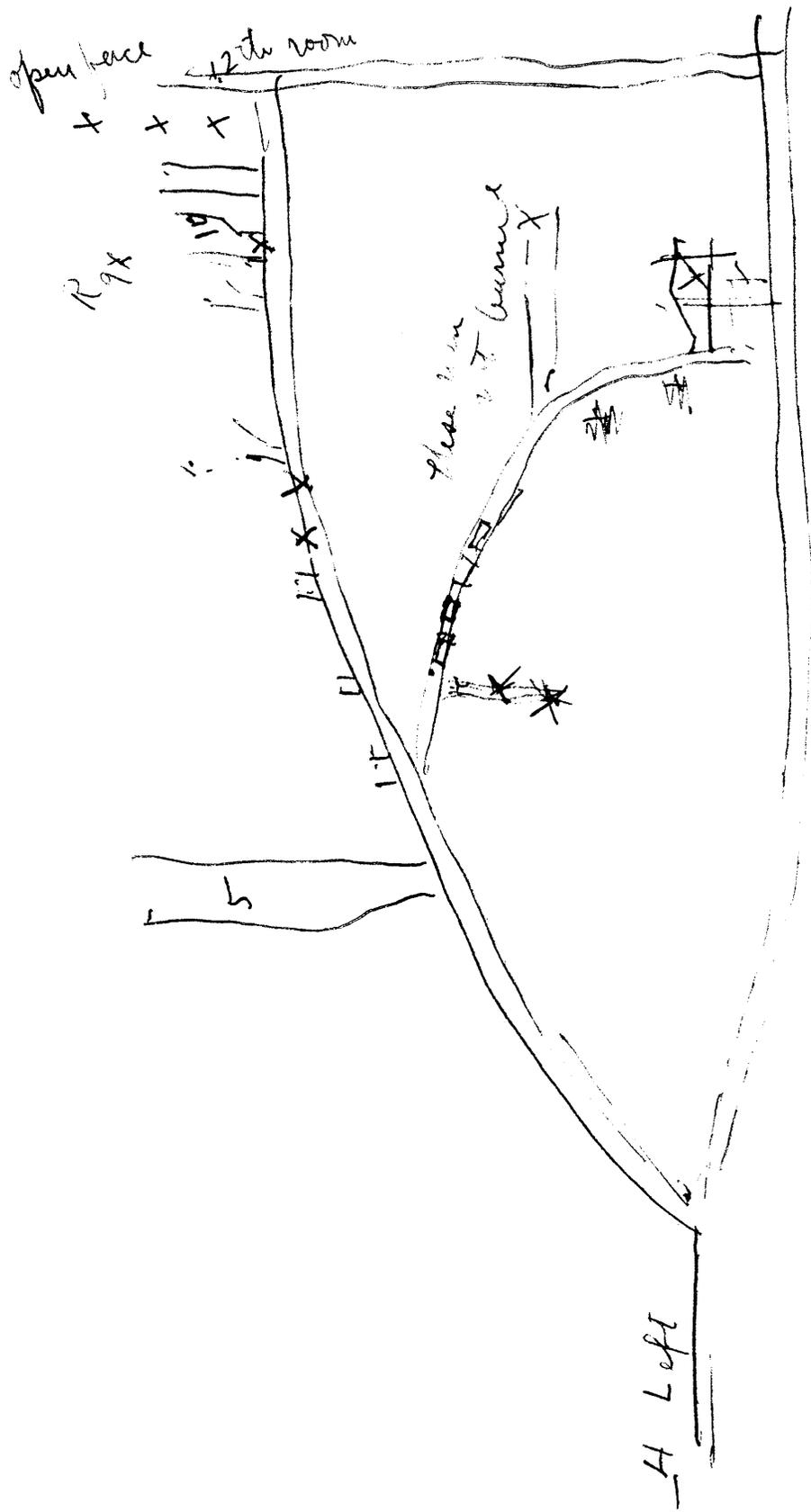
New cross-off old cross off 4 Right
curtain burned to crisp - but
hanging - line rather still
to face

In head. 41 From brank 4 X
 4 sticks Carbonts no 2
 2nd Right, ^{lost working place} first mans sack
 7 1/2 sticks 1 1/4 X 8, 40 % ^{Extra} dynamite
 6 - 5 X caps in tin box
 Outbye, a box with 3 sticks
 40 % Extra dynamite -
 Henry McArdle contractor

In Pumpington coat 4 left
 6 - 5 X caps -
 In no 5 Room 4 left, next
 room to fire



3 fire boxes
 2 " " right



2nd Left

James Clark Contractor
2 laborers

drum found at telephone stas
just below the 3rd

First body 60 feet from a 6
switch, other two about
30 feet apart toward a.c.,
heading - on course wet-
has water line, 7 to 12 con-
nections, spunkles with hose
at store, the store keeper said
that Clark used dynamite.

Store Keeper March \$295.00 \$47 1/2
slates per case
1 1/4 x 8 dyn.
1 1/2 x 8

April 267.25

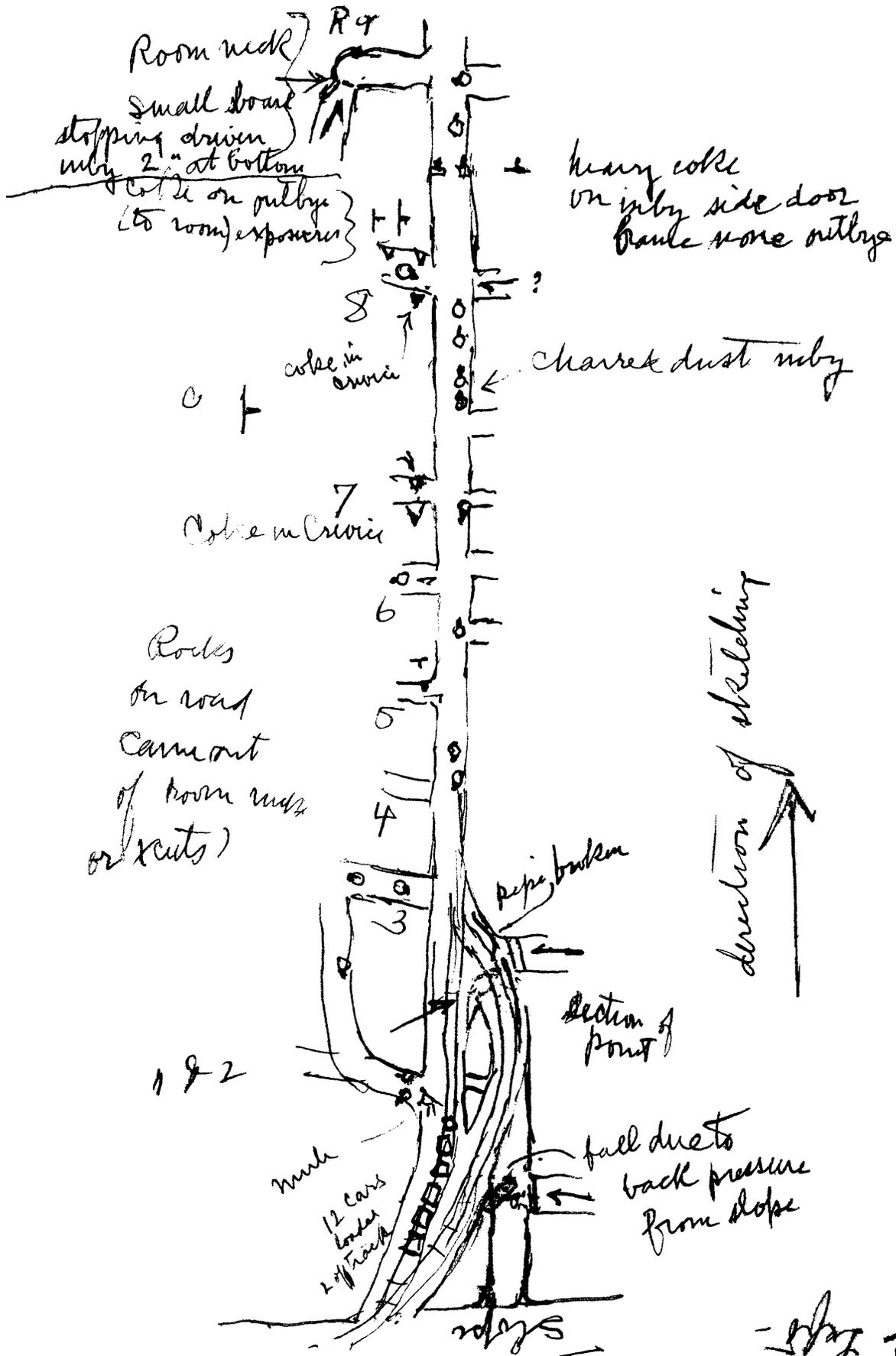
2/3 2 Carbons & 1/3 dynamite

av - perhaps 500 ^{tons} per day.

Barid, said had a big fall the
~~evening~~ before explosion, as they
were coming out.

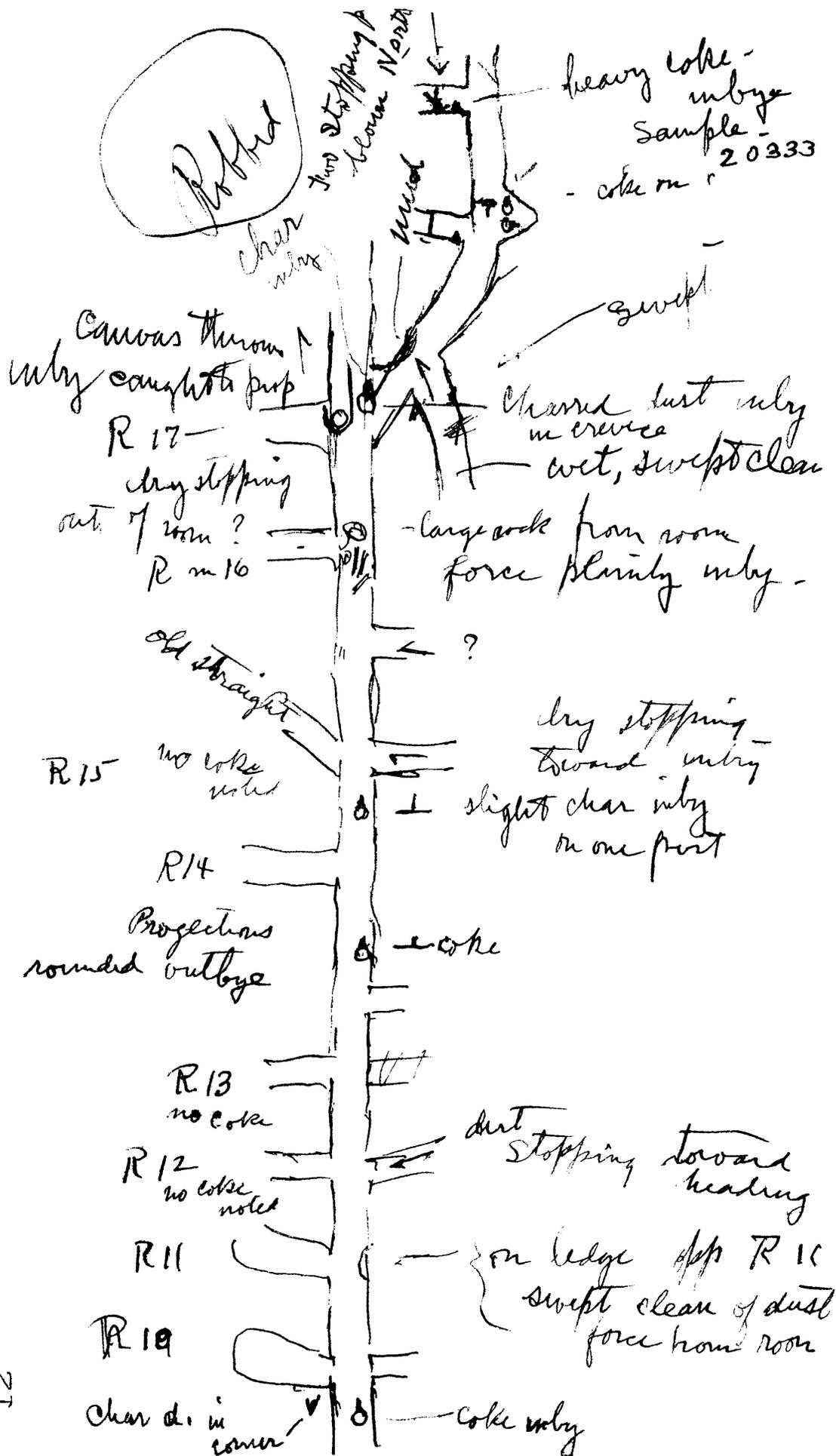
In Pennington's book he had
coal from his employees (he
was a contractor) on May 4
yet we were told that the
mine had not worked for
5 days previous

Mr. Hillhouse measured on May 12
found 27000 cu ft - in
6 x 6 area abt. 40 feet in.



May 14, 10

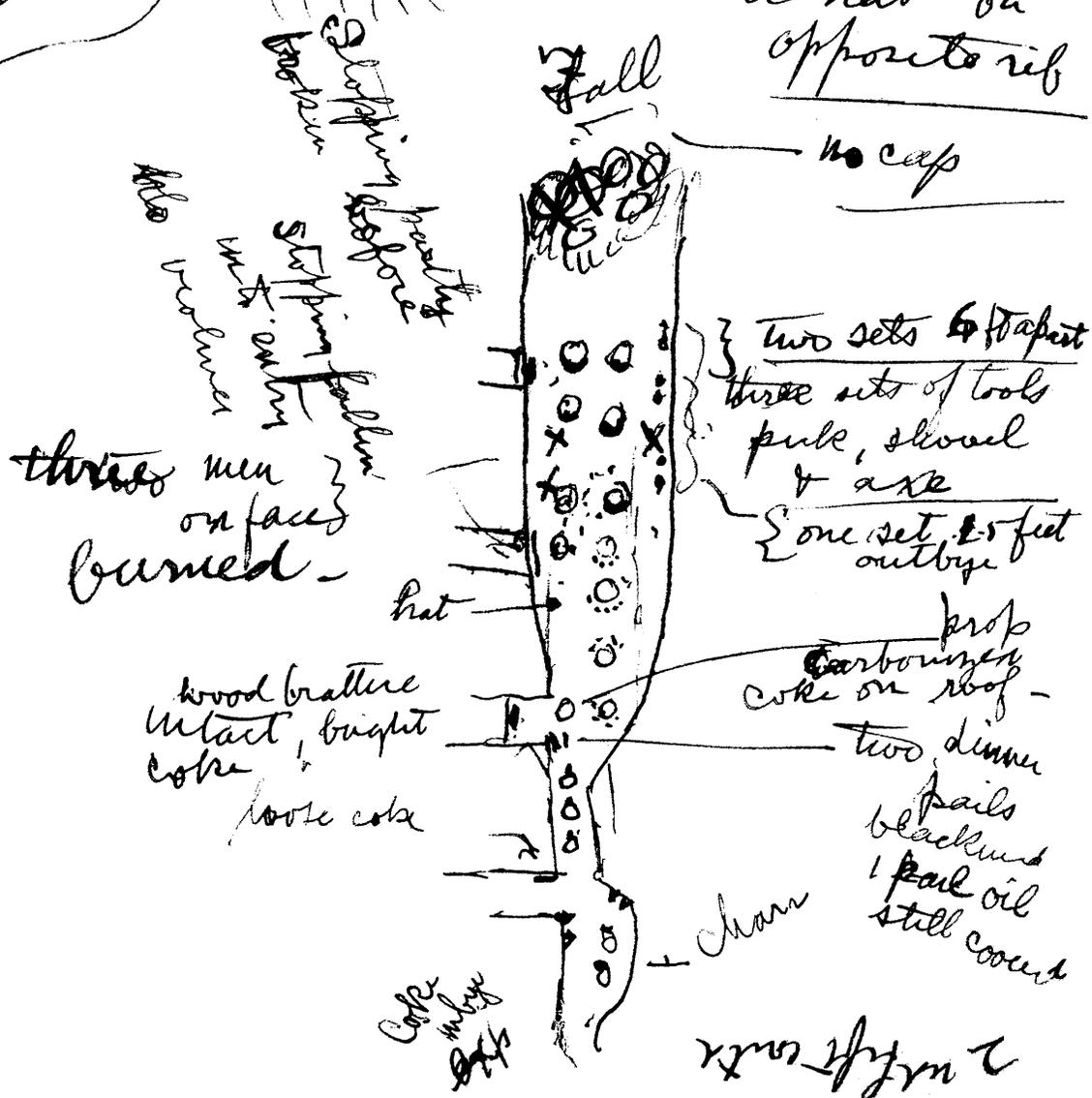
Peter Wynn
2 Sept -



looks as if the three men were working on north rib - They used no powder the coal was crushed Two men evidently ran across

coal 18"
middle man 8"
coal
4'-3" 1" dirt, shale 2'-3"

Two caps with lamps on north rib, with tools outbye set no cap, but a hat on opposite rib

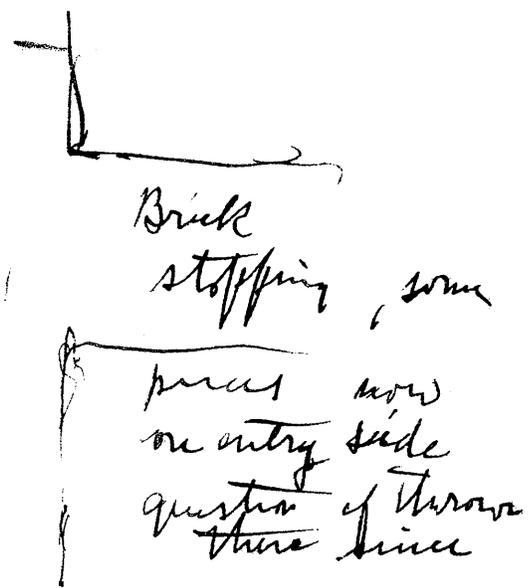
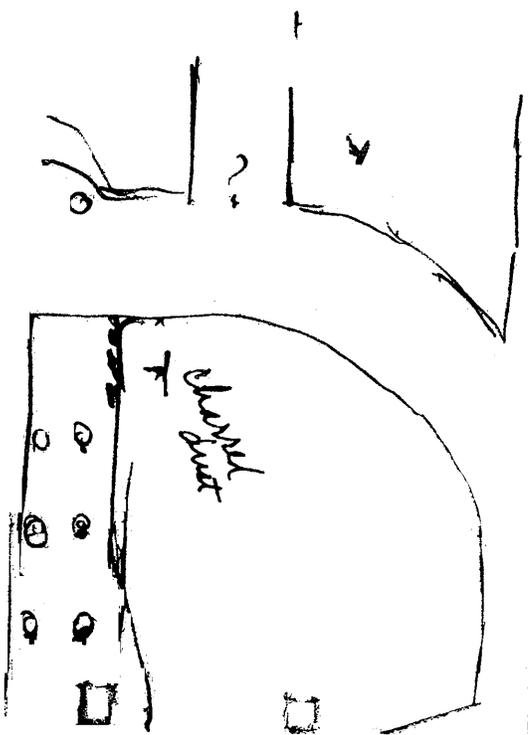


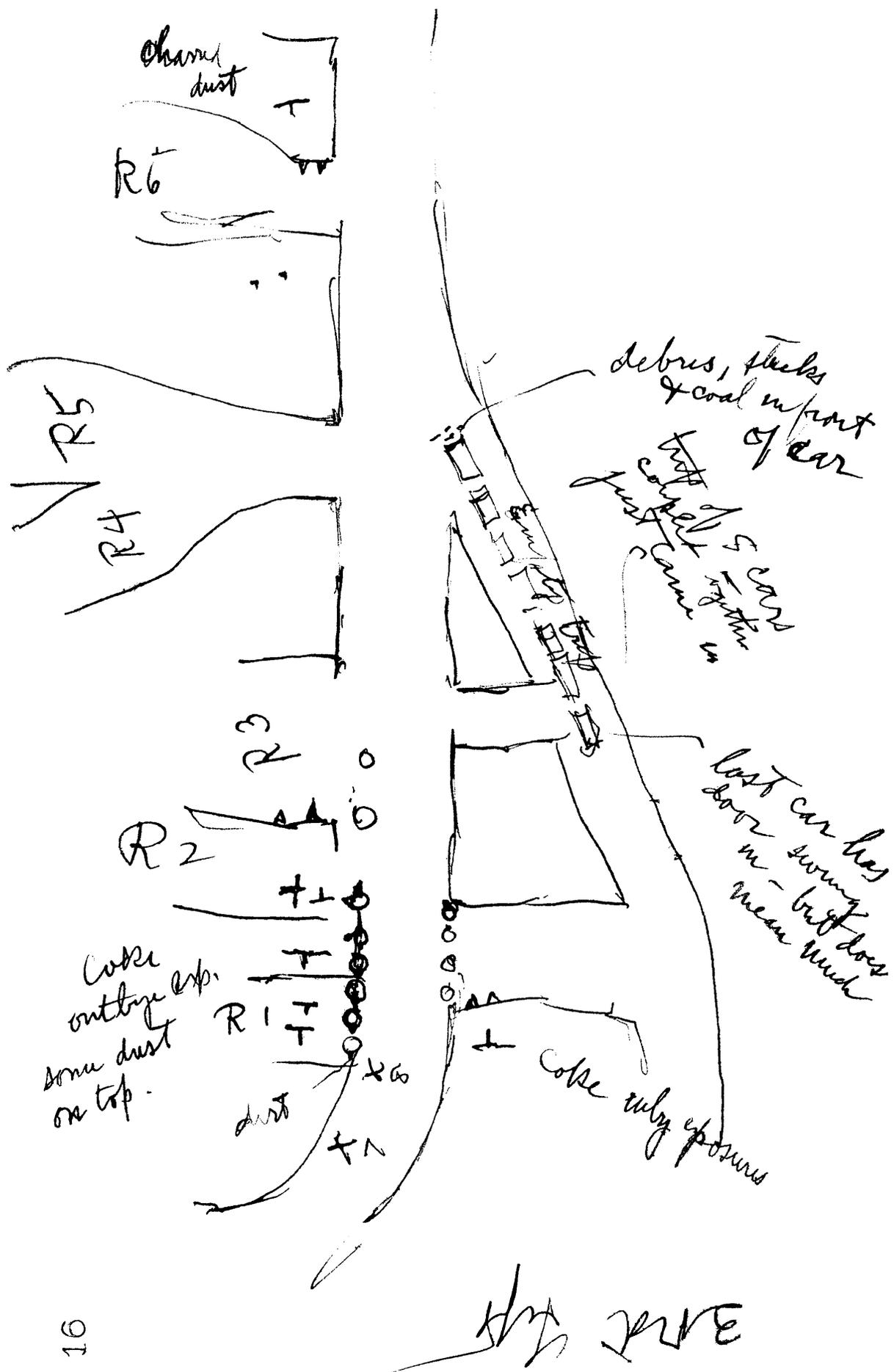
Main Slope north from 3 left
~~Stopping~~ ^{Overcast} floor blown out.

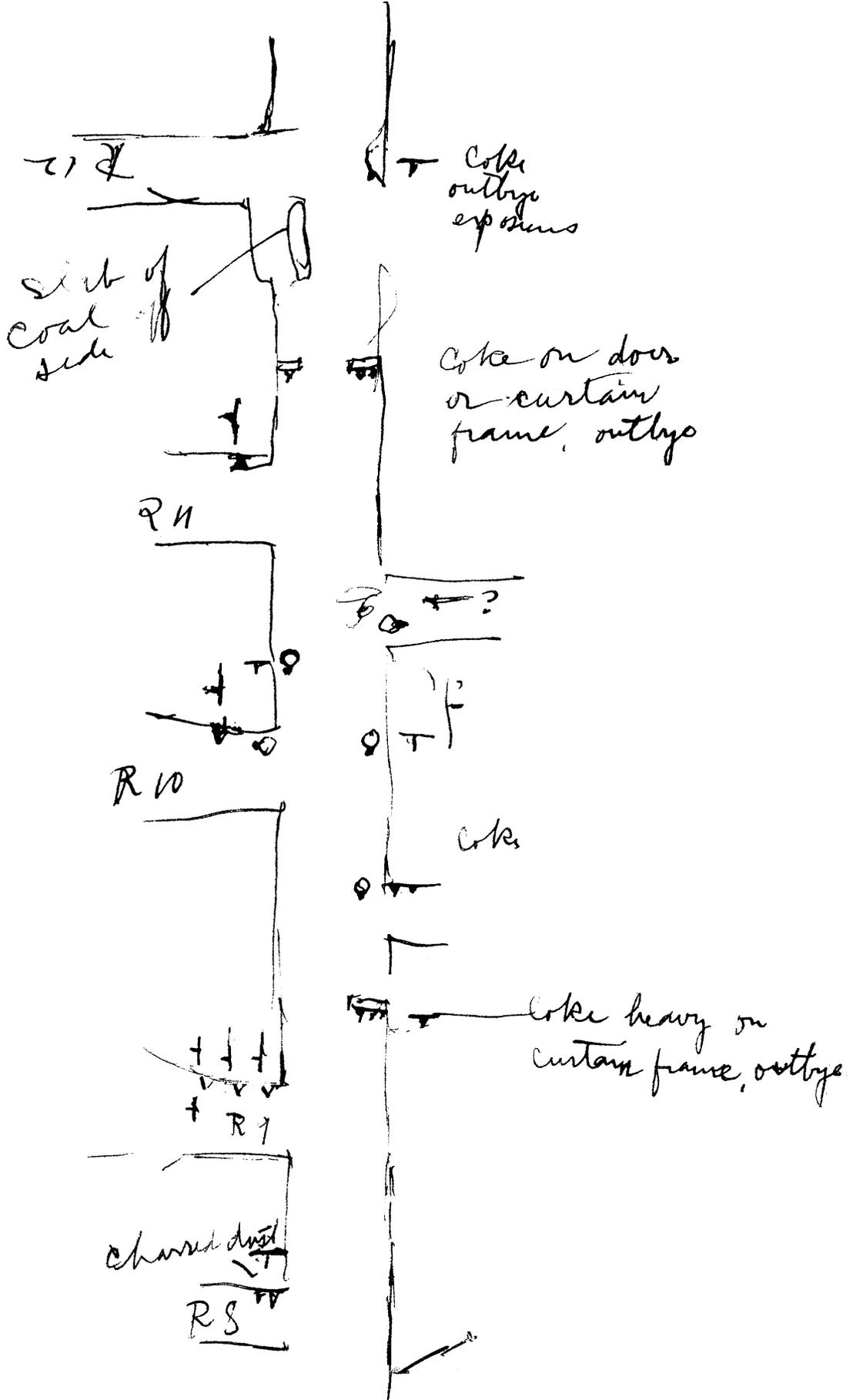
about 100 feet below overcast
two posts on left have edge outbye.

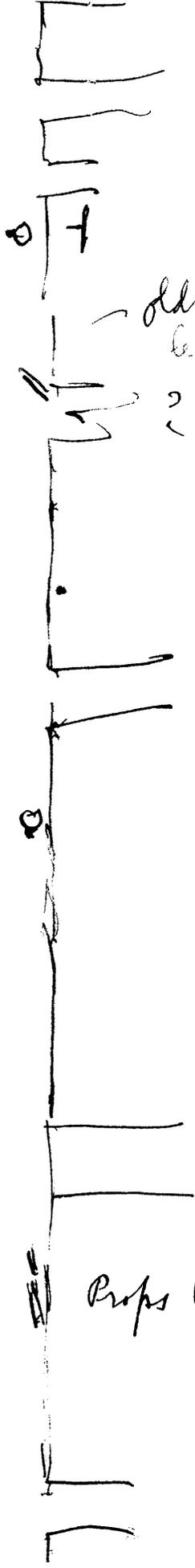
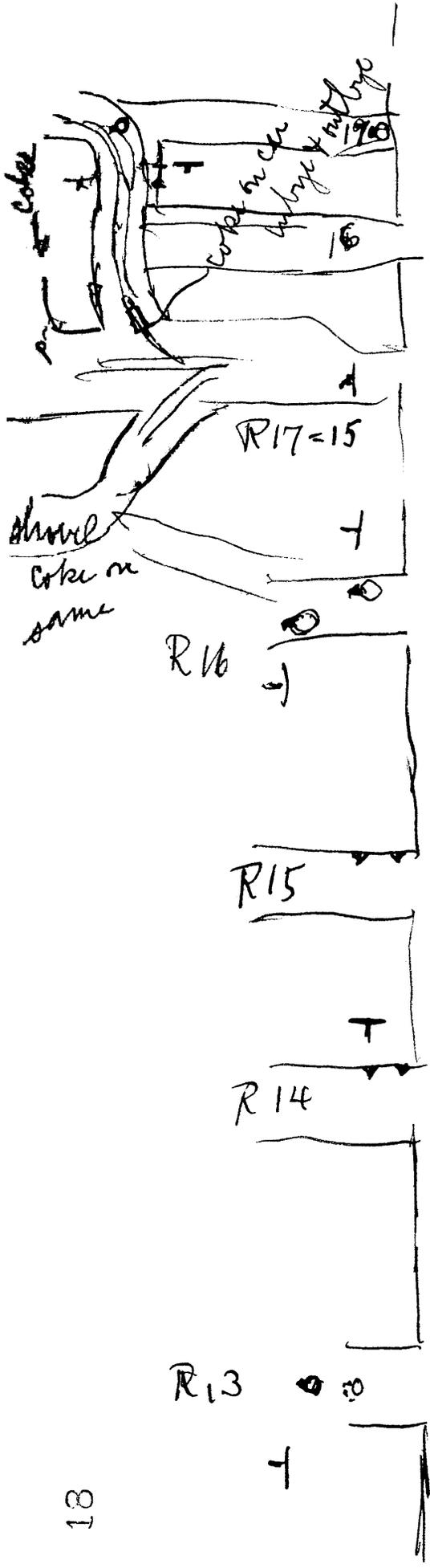
at cross-cut with brick stopping
second, with brick intact - edge
on only corner facing outbye
at next xcut ditto -

2 " " with brick stopping out edge
on only corner and adjacent
to edge of ~~old stopping~~ brick remaining
facing outbye







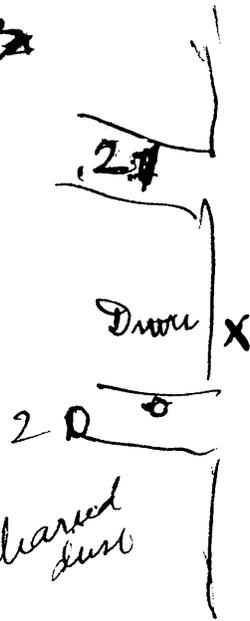


old timber leaning in by

Props leaning outbye

2 men
on platform
at 19

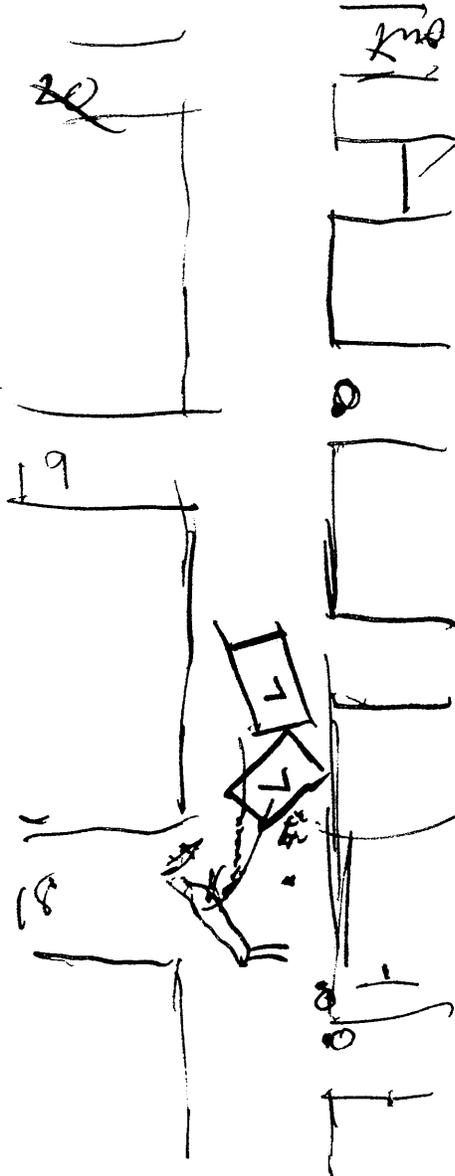
2 men



0 - y

not much
wooden coker

one
too many



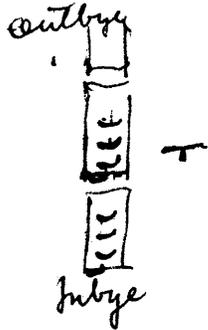
stopping in

debris
2 car top load
found out
Johnson count
in ?

Sunday May 15²⁰

Took sample Return Air in bottle 8673
at 9-AM. taken at discharge tip of fan
volume about 30000 cu ft, (27000 cu
feet measured in mouth of intake (slope)
by Inspector - at 4 P.M. 8672

Note - previous evening a trip of loads
pulled out of mine, the mby 4 or 5
had strong coke not only on large lumps
of coal but also on the car end
flame evidently from outbye

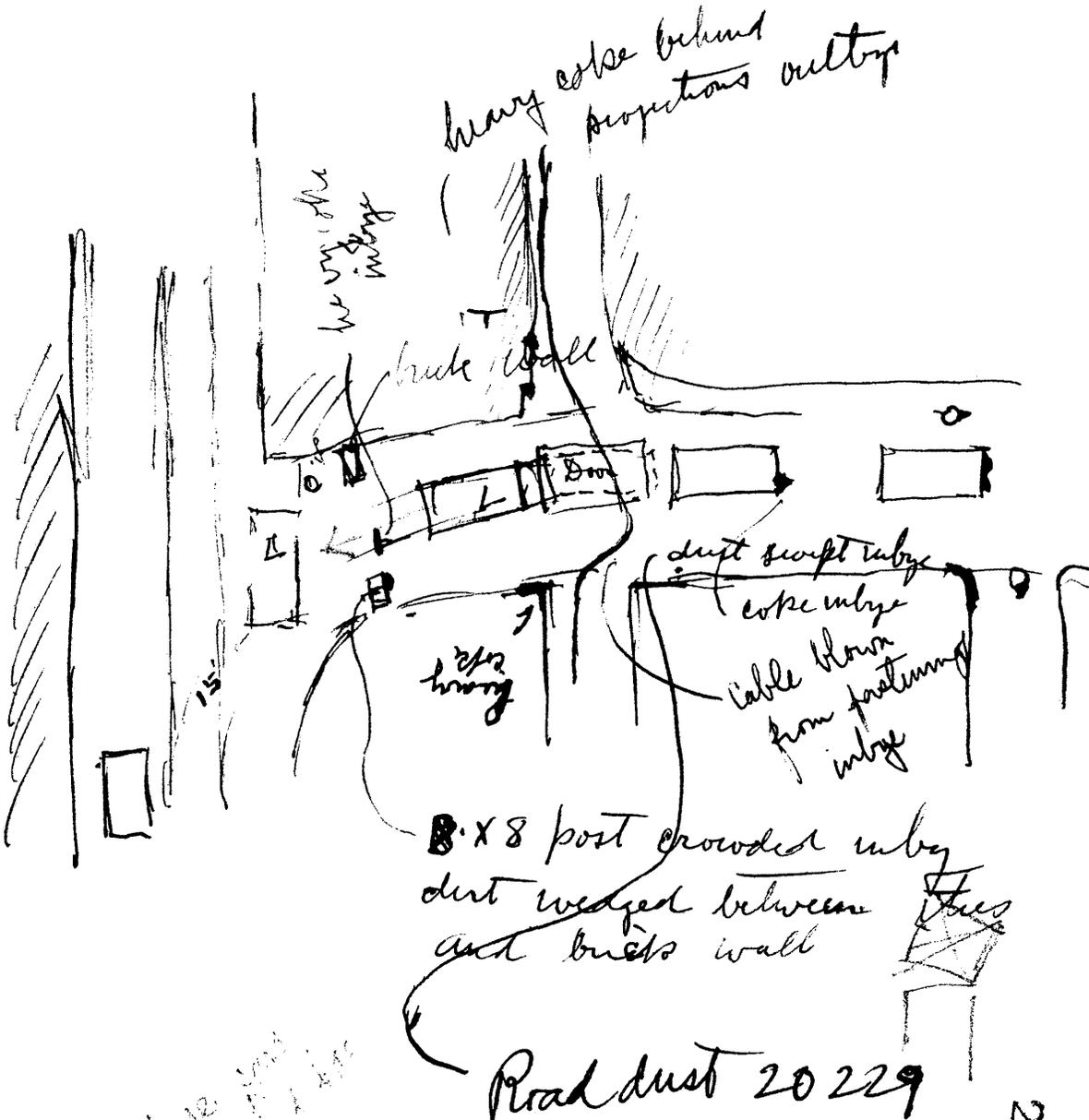


This trip said to have
come from the 4th left

4 Right

Can 20354
Sample of coke
in by side of
loom frame of
loaded slant
to 4 Right

Two mules of this heading
found out on slope
apparently cars from
4 Right were blown through
on to slope, in spite of this other forces
inward



These are
the
four

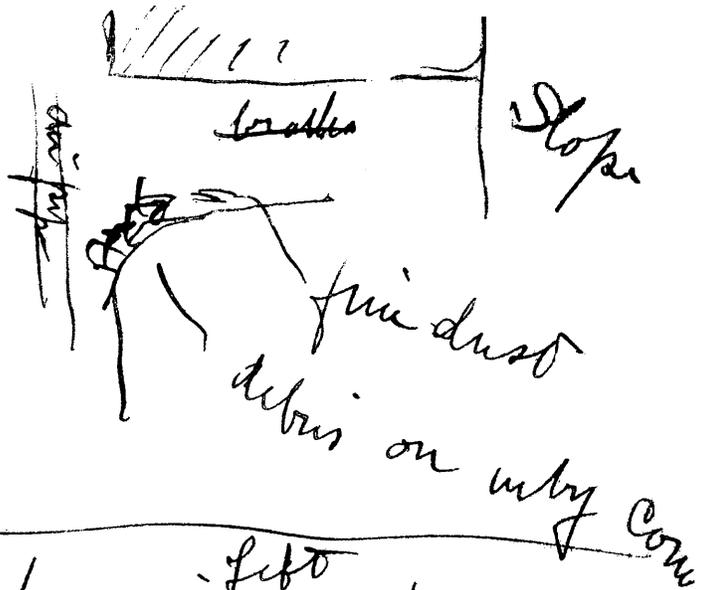
up air course from 4R ²²
1st x cut. above loaded tracks
intact? dirt
2nd ~~couldnt tell which~~
3rd ~~toward air course?~~
an old board brattice lying down
dirt stopping not down
4th dirt stopping looks as if
blown toward us. a
light frame has coke on nby
side

at left camp house stove on
but still locked that is it
toward west, stopping at back
not blown out

5th xc dirt looks blown
toward @ C not sure

6th xc dirt stopping toward @ B
coke on nby former
(first notes except on frame)
thus coke within projections
looks as if flame from slope

7th xc
bratree
this xc
uncertain

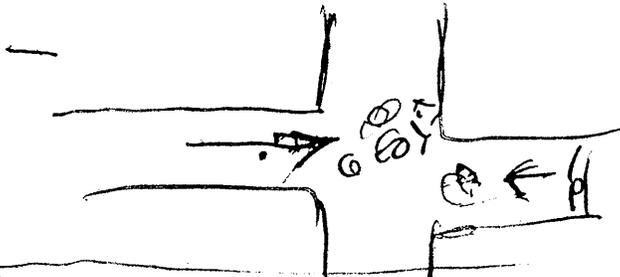


at trackman house in xc cut, swept
across ac. to opp side

8th xc cut Right bratree blown
towards a.c. no coke noted

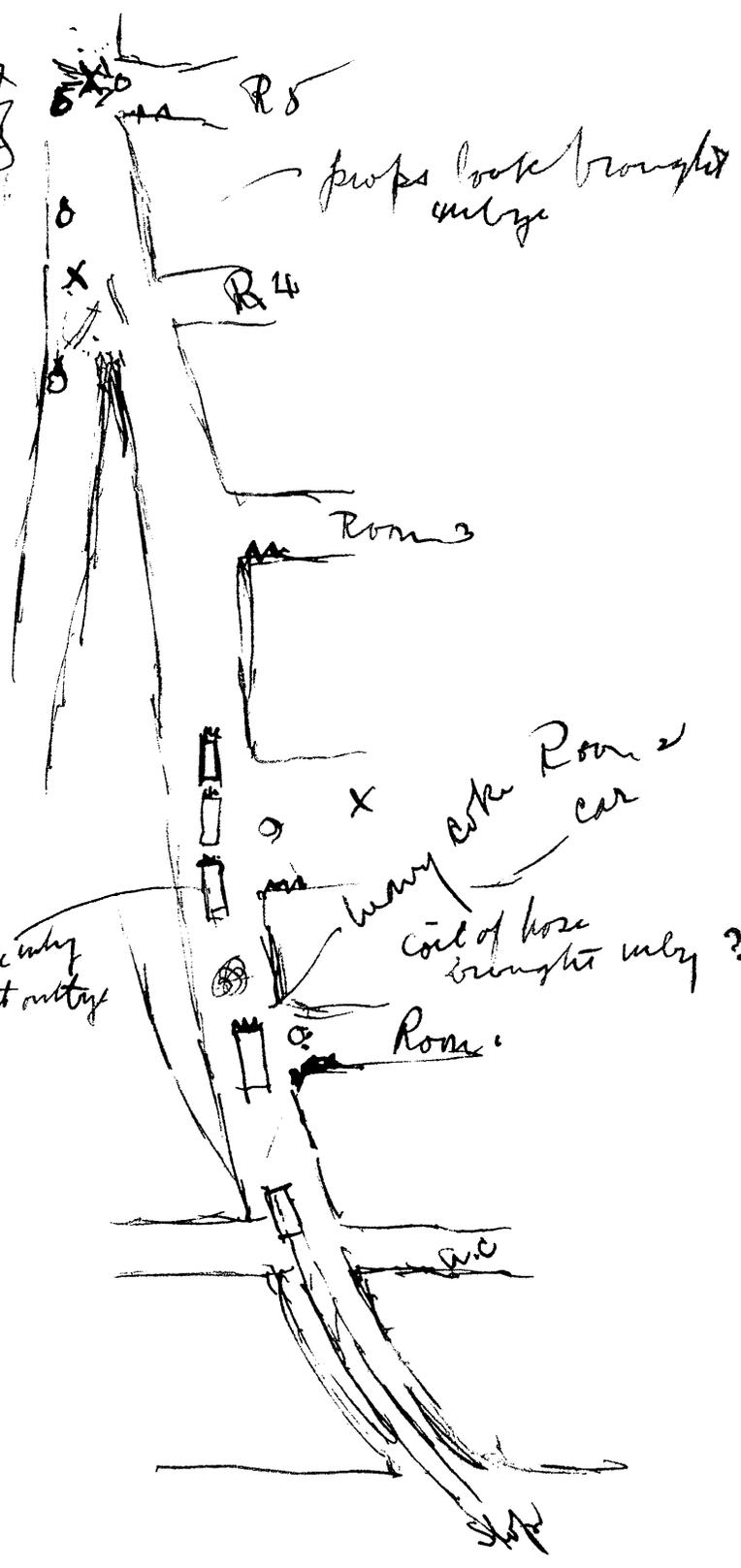
9th xc cut ditto

10th xc cut opposite ^{3 RT} ~~air~~ course toward
Main air course
a left xc cut ~~for~~ debris across ac.
from out xc cut air course

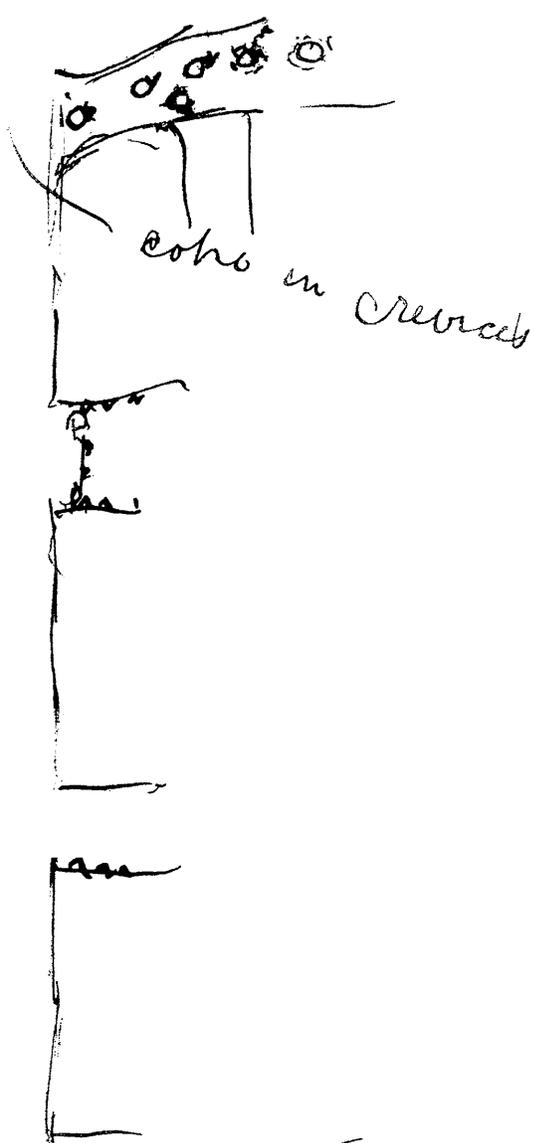
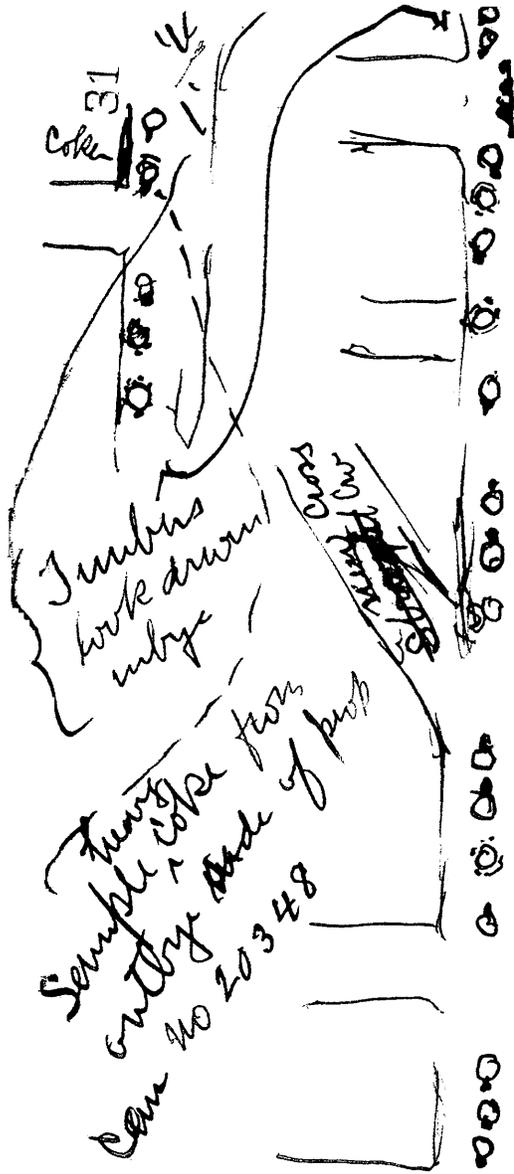


3 Right empty tracks, force strongly in by
(from slope) - no coke, everything wet
slant road, & also brick stepping in xc in by

man
on back
eyes popping
out
tracks tools
just why two
or three feet
where he was
working on
track



4th Floor



Appx cut
 coke paving
 road

 Lower

 Mule for this
 trip missing, said
 to have been found
 on slope

wet up.

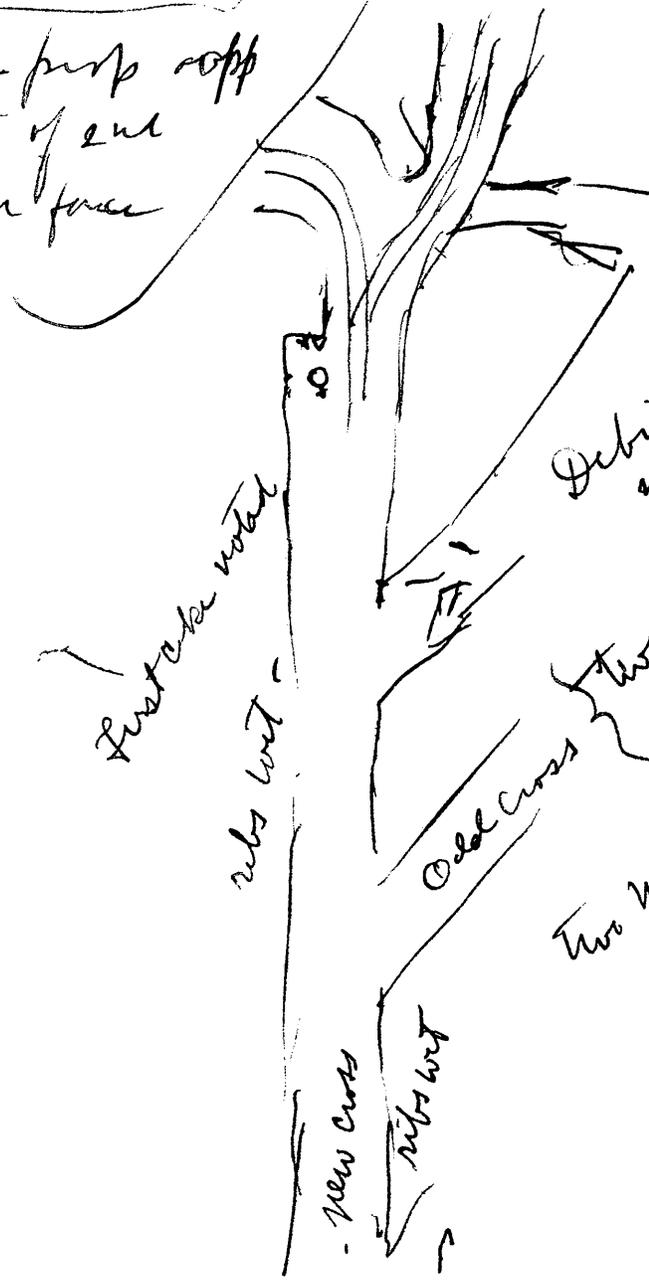
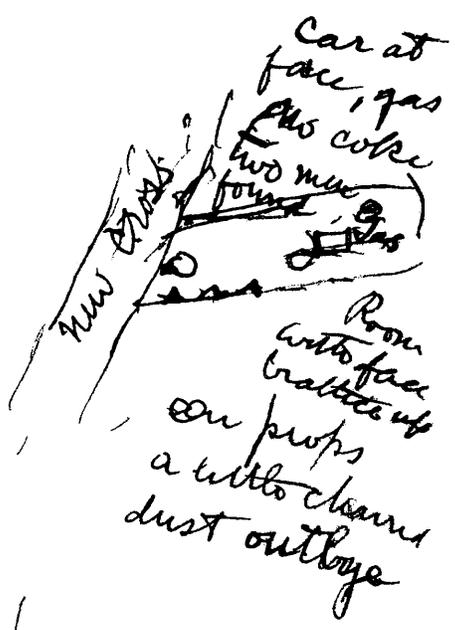
 R 7
 wet up.

 These cars have been
 probably ~~run into~~
~~down~~ pushed back
 R6 in getting out
 bodies

Face of New Cross
 1/4" cap, tin brattice
 partly up no coke
 apparently no fire
 & stoves carb units as 2

3 men 100 feet back
 from face, one further
 out by slightly bump
 he came from outbye

Coke on prop opp
 at mouth of end
 room from face



Debris looks blown
 outbye -
 Two men } two men who were
 out on entry pushing
 car, not burned

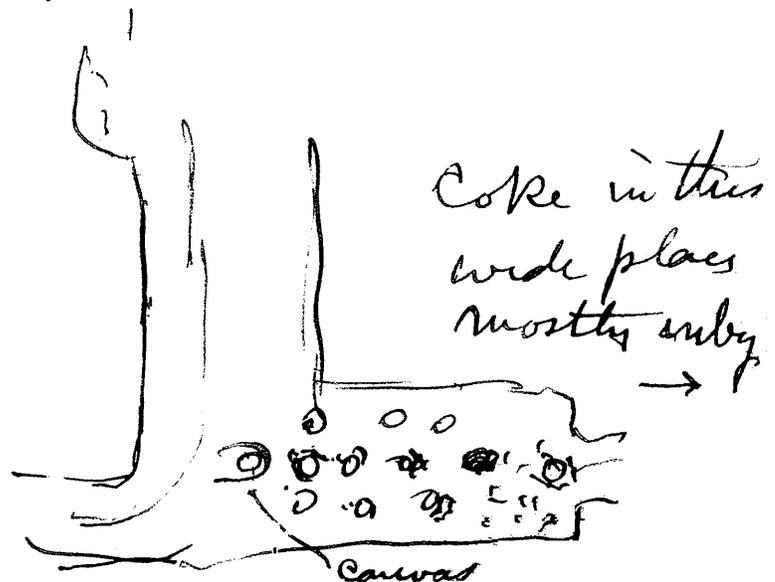
New Cross

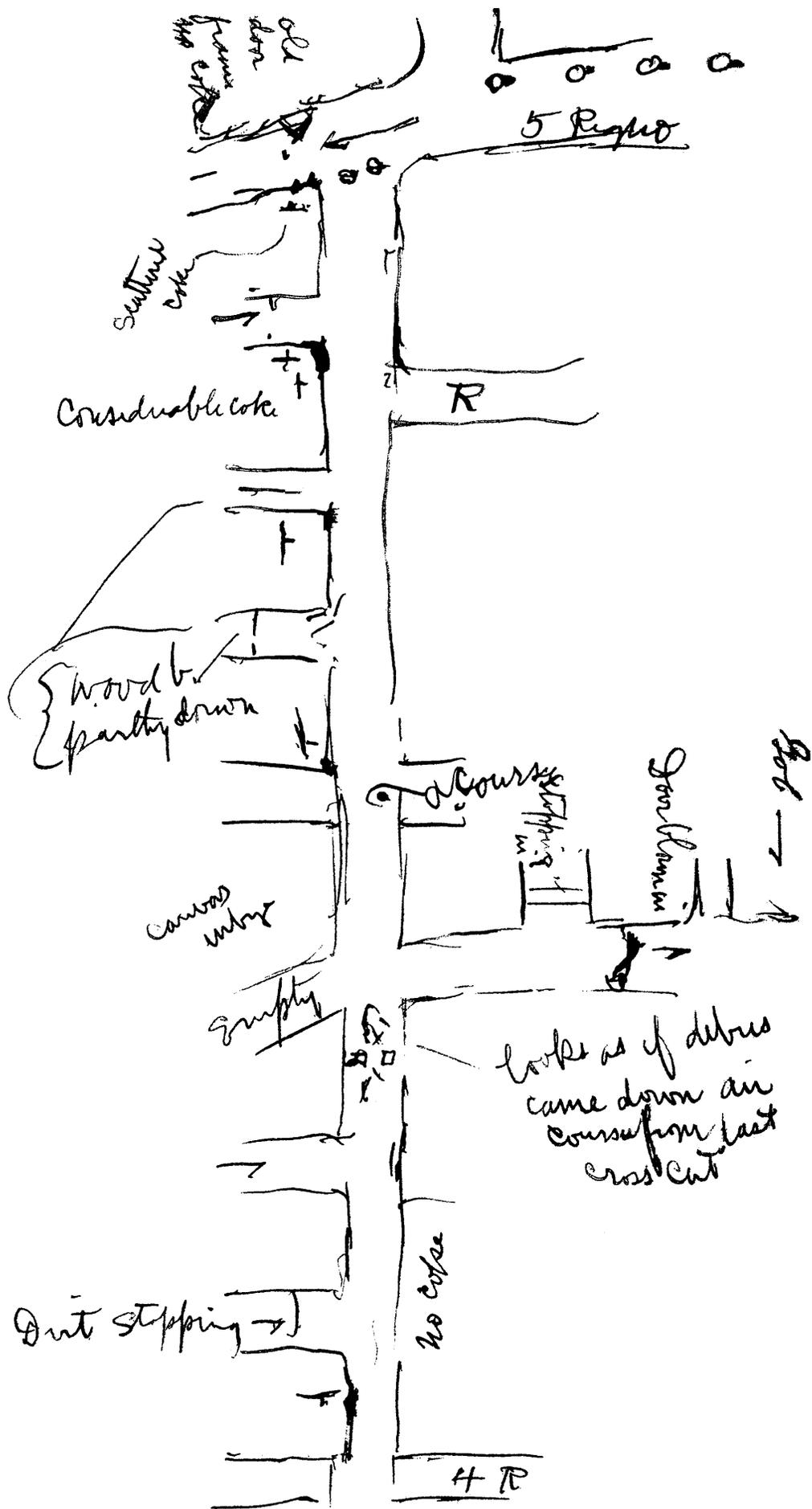
Third room, were had gas
no coke indicators

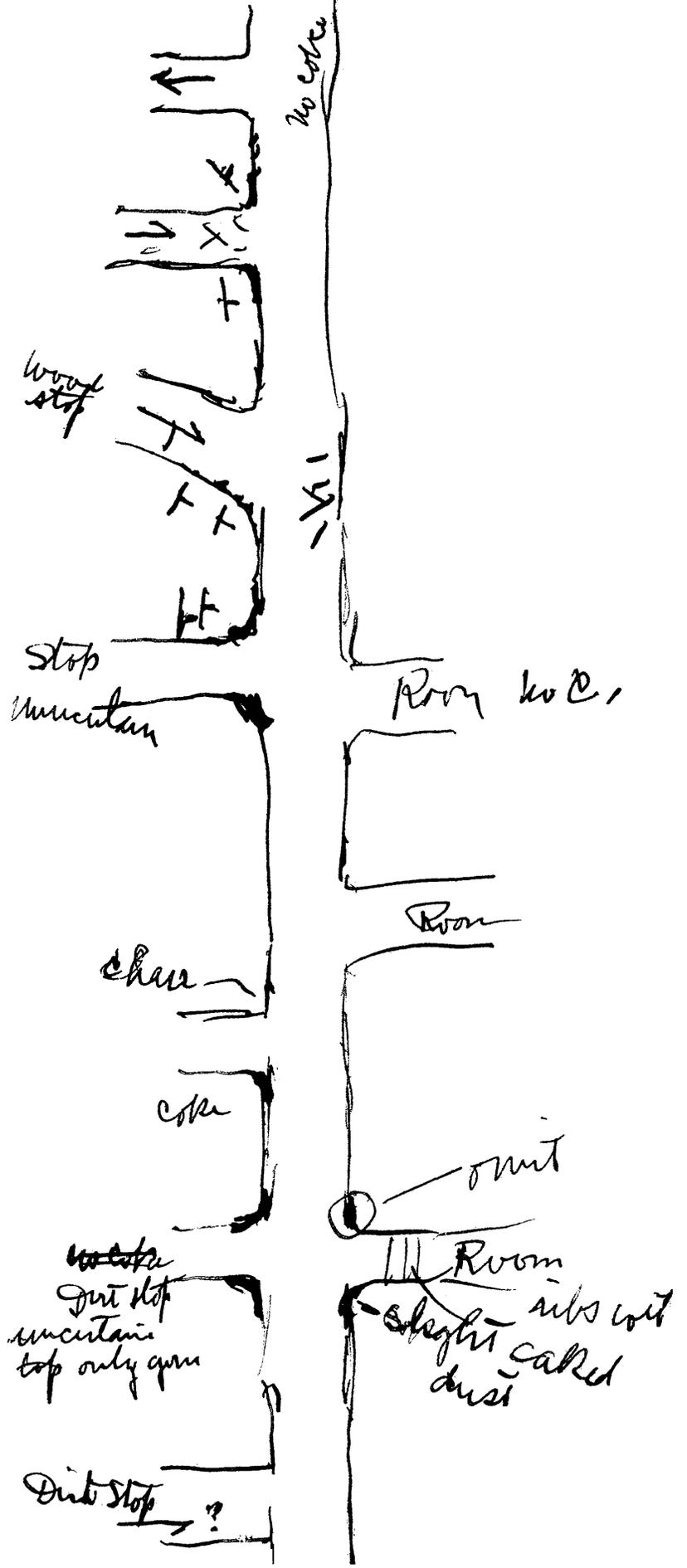
Opp air course, switch
coke facing ac.

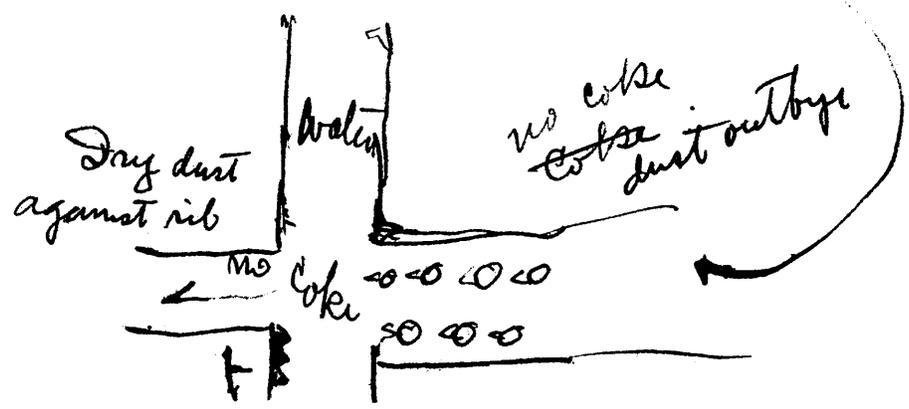
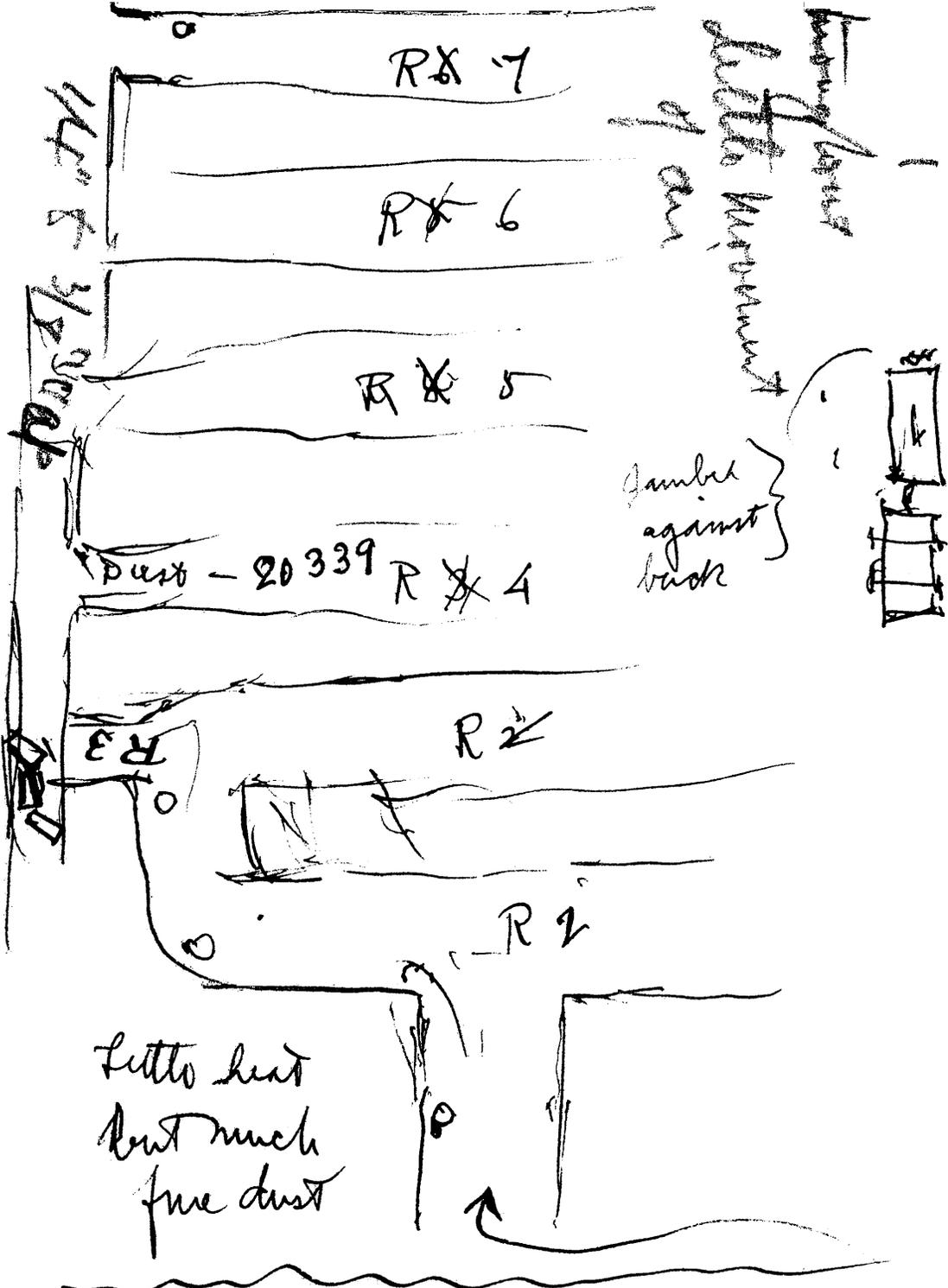
4th from face or just on
right, has little indication of
coke

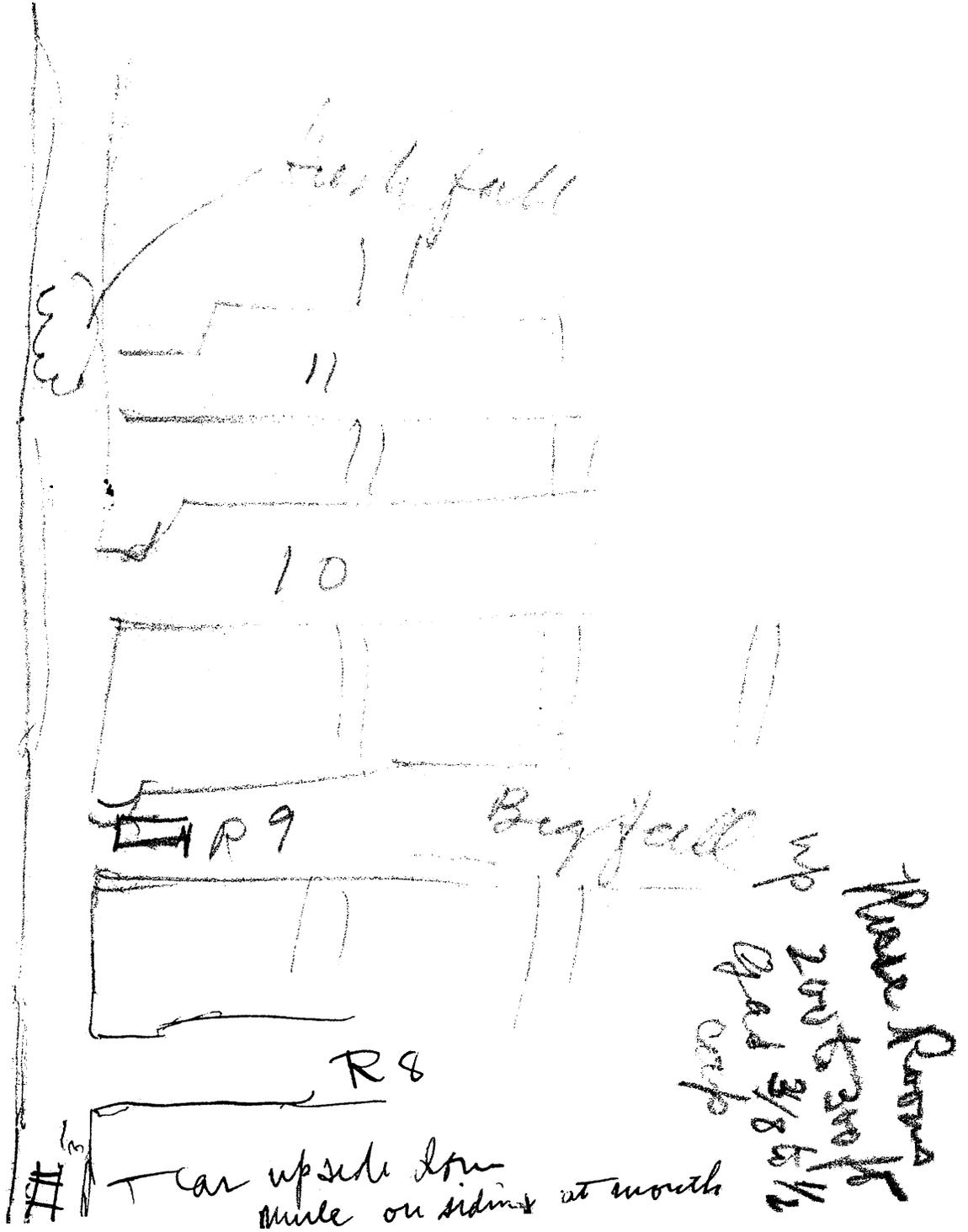
AW 1 room, ^{on right} connects with
rooms off left - ~~AW~~ off 5 Right
a canvas wrapped around
prop came from direction of
5th & 6th -
2 men found on pillar
car half loaded - no coke -





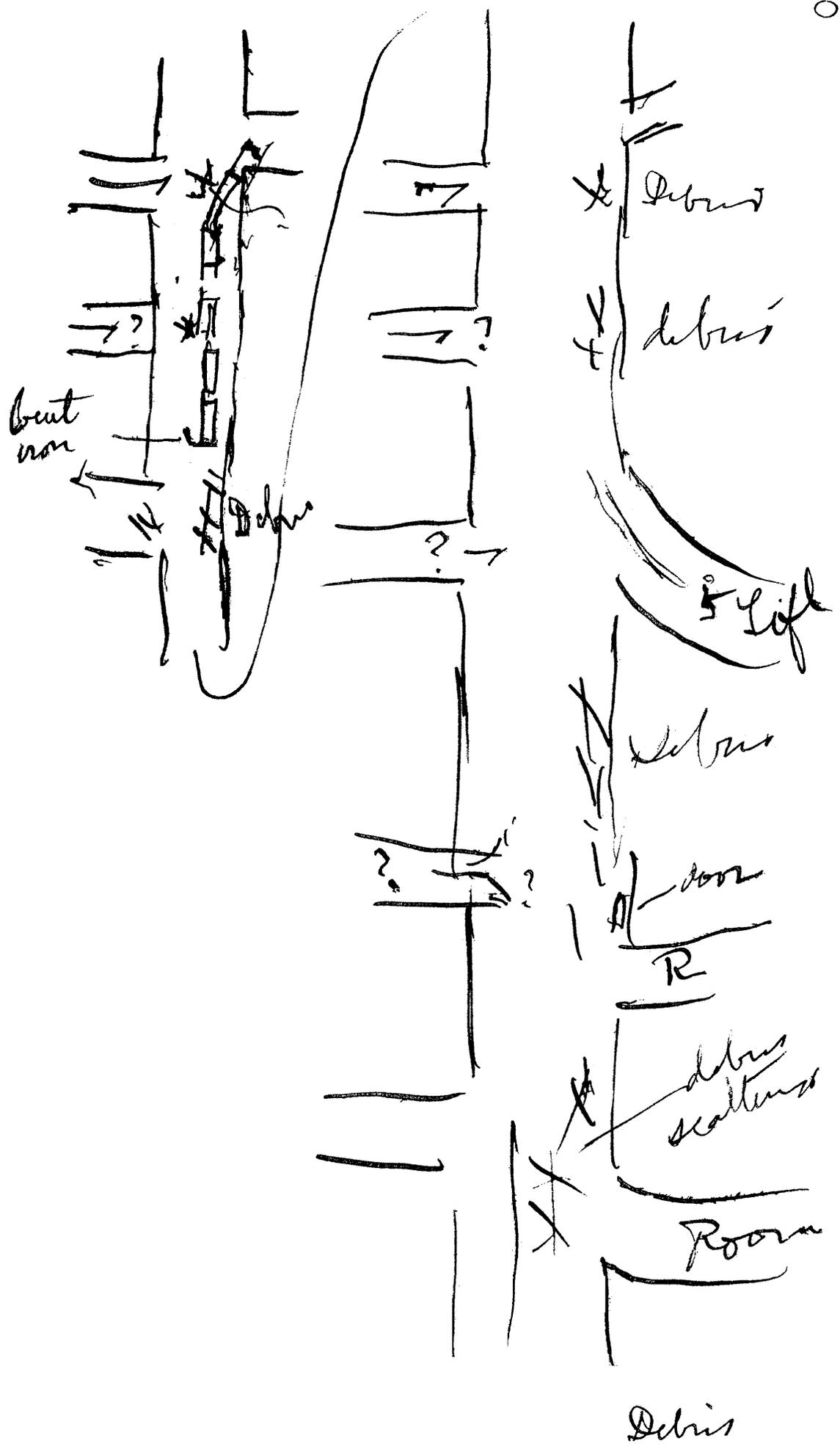


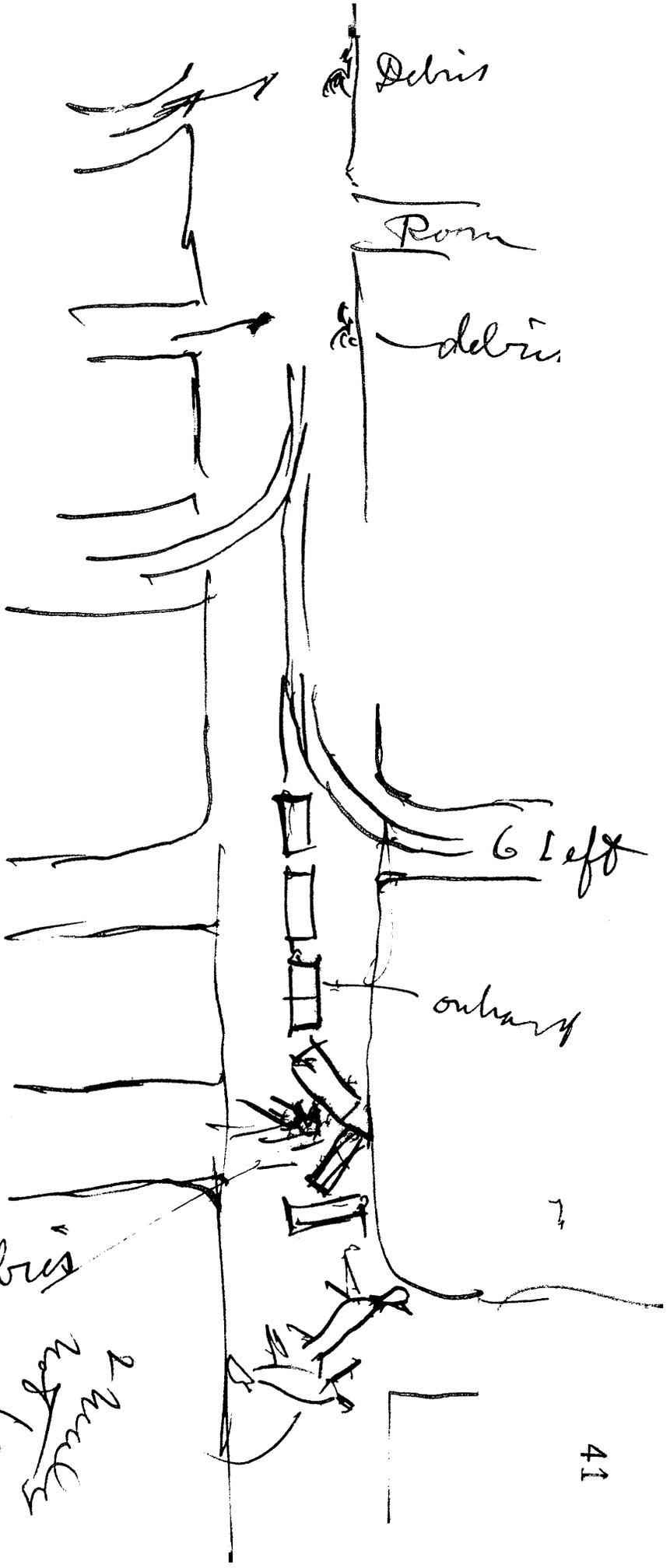






In Room 2 ^{near} at mouth
Car ^{to} tool box at left
with Carbonate ^{to} 2, Burned
paper - Two X's at mouth
Coke in by ^{end} of car
V 2





Post-Trade Ferry's little
 distance between
 4th R

debris
 2 walls
 not shown

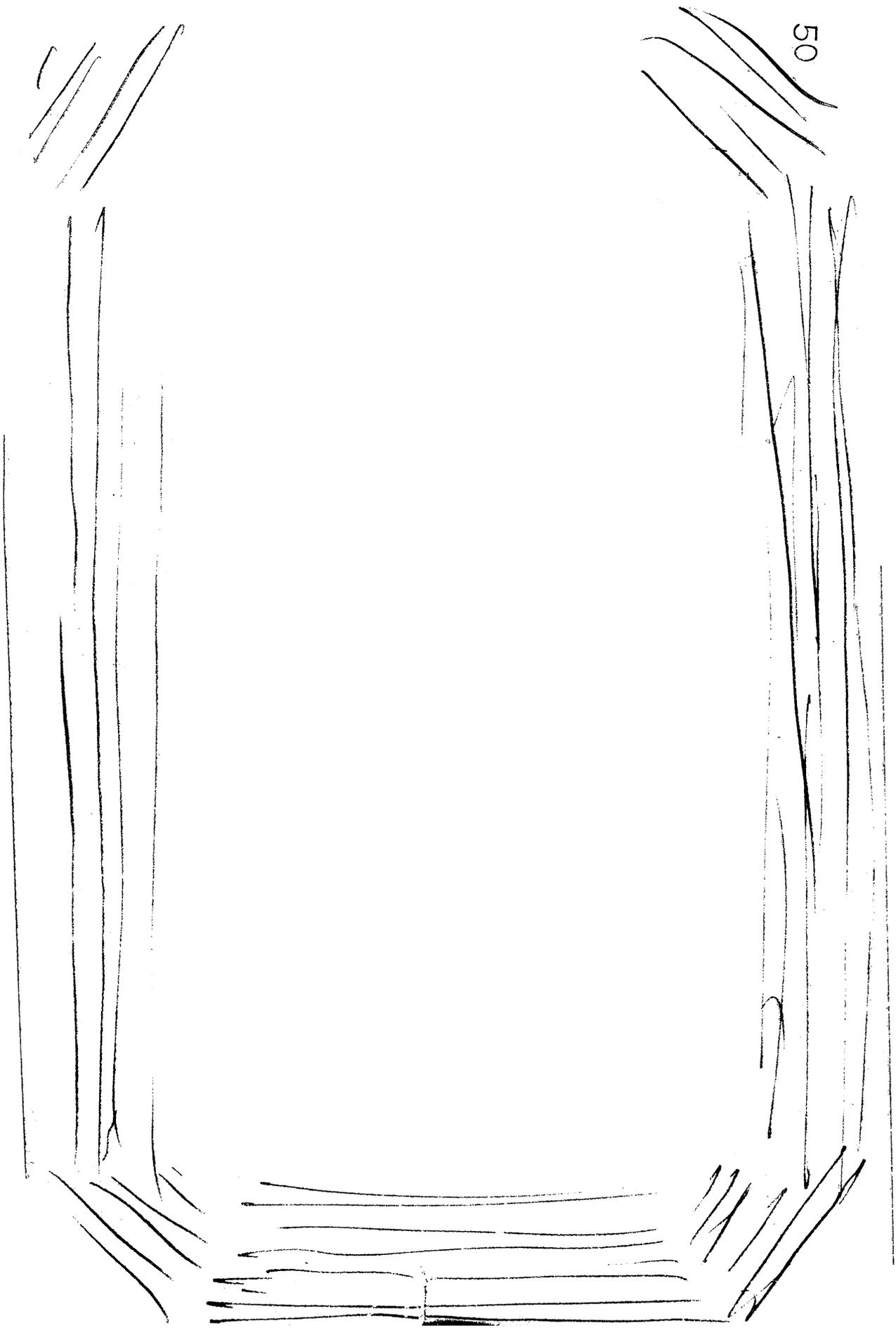
1 postman killed outside
76 bodies recovered by May
9th, at disbandment of
Rescue parties -

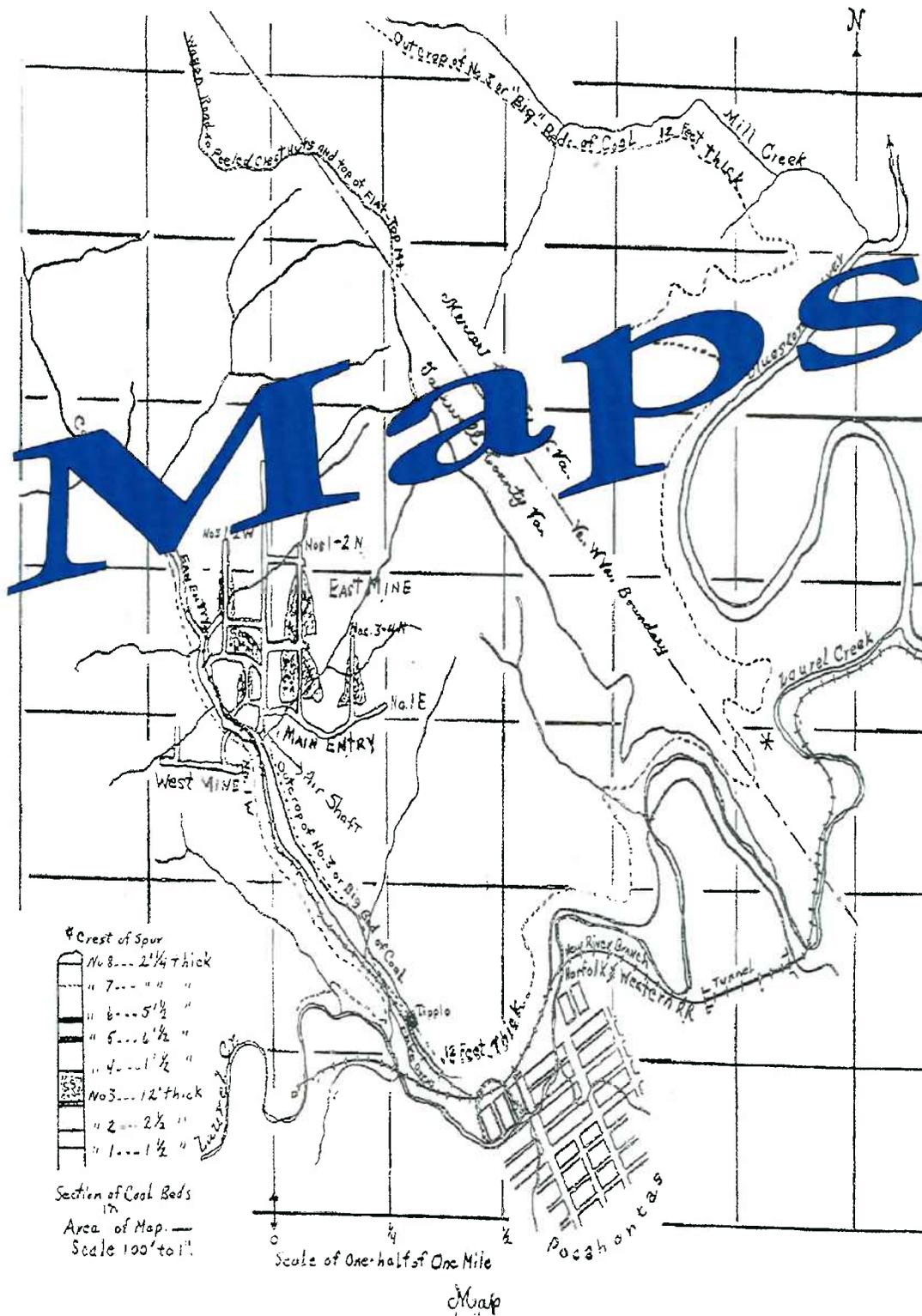
6 bodies recovered on
second search up to May 12th

1 body found by Butterflies
sentry May 17

83 recovered from man
Man found. Barice had
reported there being 87

1 postman (whos mail
sack was half buried)
84 victims to date May 18





Not Scanned