

## GOVERNMENT NOTIFICATION.—No. 572.

The following Depositions taken by the Magistrate sitting as Coroner, and Findings in the enquiry into the Deaths which occurred in the collapsed Houses in Cochrane Street, which were laid before the Legislative Council on the 3rd instant, are published.

By Command,

J. H. STEWART LOCKHART,  
*Colonial Secretary.*

Colonial Secretary's Office, Hongkong, 3rd October, 1901.

## Inquiry No. 20 of 1901.

*In charge of the Case—Inspector David Douglas Cuthbert.*



HONGKONG TO WIT.

Information of witnesses severally taken and acknowledged on behalf of Our Sovereign King EDWARD the Seventh at the house known as the Police Court in Victoria, in the said Colony, on the 30th day of August in the year of Our Lord One thousand nine hundred and one, before Francis Arthur Hazeland, Esq., Gentleman, Magistrate for the said Colony.

LIU MUI declared and examined:—

I am a married woman. I lived at No. 32, Cochrane Street, third floor. The house was a family house. The house had four storeys. There were different families occupying the different floors. On the 3rd floor there were 19 people. On the night of the 14th August, at 11 p.m., the house suddenly collapsed. My husband was in the same cubicle with me. My husband was killed. My mother and two daughters were also on the same floor. They were all killed. My husband's name was Leung Sang. He was head coolie at the Ordnance.

DAVID DOUGLAS CUTHBERT sworn and examined:—

I am Inspector of Police. I was requested to make enquiries of those who were killed by the collapse of Nos. 32 and 34, Cochrane Street. Forty-three dead bodies were recovered from the ruins. I produce list of 41 persons who are missing from these two houses. There are also 3 whom I have not been able to ascertain the names of. Two of these three were visitors and the third was the husband of a woman living in the house. I am of opinion that all the 41 on this list were killed by the collapse.

GEORGE WATT sworn and examined:—

I am Police Sergeant 11. On the night of the 14th instant at 11 p.m. I was in Queen's Road at the bottom of Cochrane Street. I heard noise of something falling. I ran up the street and found that No. 32 and No. 34, Cochrane Street had collapsed and also the verandah of No. 30 had also fallen. I went up to No. 30 to get the people out. While I was there, fire broke out in No. 32. A minute or two later the fire brigade arrived and extinguished the fire.

HO HEUNG CHI declared and examined:—

I am a draughtsman in Messrs. Palmer & Turner, Architects. On the night of the 14th August I was asleep at No. 32, Cochrane Street, second floor. In the second cubicle there was a friend of mine sleeping there. His name was Ho Sun. He was an apprentice. I was asleep and I heard a crash. Then the house collapsed.

PERCY THOMAS CRISP sworn and examined:—

I am Inspector of Buildings. On the 15th August at 9 a.m. I was called to the collapse of Nos. 32 and 34, Cochrane Street. I examined the débris and found that all the floor joists were in a sound condition. The brickwork of the top floor, which was added a year ago, seemed to be good work. I saw the red brick bonding and it was good. In my opinion the cause of the collapse was due to the faulty party wall of the old work. I found, from the part of the party wall remaining, it was quite hollow. I have no doubt this party wall was built hollow. The heavy rains soaking into the two layers of Shanghai tiles caused a very great weight to come on to the party wall, which split in two owing to its being hollow.

JOHN BELL sworn and examined:—

I am Medical Officer in Charge of the Mortuary. I produce list of the bodies received at the mortuary on 17th, 18th, 19th, 20th and 22nd August, sent by the Police from the collapsed buildings at No. 32 and No. 34, Cochrane Street. I have also placed on the list the cause of death.

HUGH POLLOCK TOOKER sworn and examined:—

I am Acting Assistant Director of Public Works. These two houses, Nos. 32 and 34, Cochrane Street, standing on Inland Lot No. 1 section A, were constructed, as far as we can ascertain, in the year 1878, and there appears to be no record in the office of any alteration or addition until the latter end of 1900, when plans were submitted under the Building Ordinance and notices given on prescribed form. One dated the 3rd November, 1900, is in respect of No. 32, Cochrane Street, and the other dated the 7th

December, 1900, is in respect of 34, Cochrane Street. Both plans were prepared by Mr. E. M. HAZELAND, and the notice dated the 3rd November, 1900, describes the work as follows:—"To make additions and re-build cross wall, add verandah." The notice dated the 7th December describes the work as follows:—"Additions and re-building cross wall, &c." Both notices are signed by CHAN TSUN CHEUNG, as owner, and the addition spoken of consisted principally of another storey. They were originally 3-storied houses. These plans were scrutinized by myself, and found to be in accordance with the Building Ordinance, and were then forwarded to the Medical Officer of Health and were returned by him saying that he was satisfied they were in accordance with the Public Health Ordinance. This Ordinance (15 of 1894) provides for the height of houses in relation to the width of the street. This additional storey complied with that Ordinance. I visited the collapse on the morning of the 15th August and found that Nos. 32 and 34 had completely collapsed, and in No. 30 the front wall had fallen out, and the sites of Nos. 32 and 34 were covered with débris and also the street in front, and also the balcony of No. 31, which was of iron, was considerably damaged and a quantity of débris was on the verandah. I made a careful examination of the remaining walls and of the débris. I found that the portion of party wall between 32 and 34 was badly constructed although the bricks of which it was composed were good. I mean by badly constructed that the wall was badly bonded and the heart of the wall was composed of small pieces of blue brick. The heart of the wall was hollow and was filled in with small pieces of brick. This could not be perceived except by an interior inspection of the wall. The party wall between Nos. 30 and 32 and between 34 and 36 were standing at that time and exposed to view, and it could be perceived that these walls were more or less of the same construction as the party wall between 32 and 34. After careful examination, I formed the conclusion that it would be impossible for anybody to say definitely what part of the building first collapsed. I further concluded that the mischief had been going on for some time and that the showery weather we had before the accident—hot one hour, and then a heavy shower—would have caused considerable contraction and expansion of the material, and acting on these old walls would have considerably tended to the collapse. All the timber in the floor that I examined was sound and good and the top floor appeared to be supported on hard-wood joists. I believe, from the way the floors were lying, that the party wall between Nos. 32 and 34 was the first part of the building to collapse. The failure of this wall would have caused the floors to tumble down and the shock would have been quite sufficient to throw the front wall out. I attribute the accident generally to the bad state of the old brickwork of the whole building. The old Building Ordinance No. 8 of 1856 placed no restriction on the use of blue bricks but it required that all walls should be solidly built.

ERNEST MANNING HAZELAND sworn and examined:—

I am Civil Engineer and Architect. Some time in November and December, 1900, I was asked by Mr. Chan Tsun Cheung to prepare plans for an additional floor with verandahs to houses 30, 32 and 34, Cochrane Street. I sent one of my assistants to measure the premises up. He reported the walls were sound and plumb and thick enough to add an additional storey in compliance with the Building Ordinance and Public Health Ordinance. Plans were prepared and submitted to the Public Works Department for approval. These plans were approved by the Public Works Department and I gave the plans to the owner. I had nothing to do with carrying out the alterations and additions to these premises. I was not engaged to superintend the work. I was formerly Assistant Engineer in the Public Works Department. My principal duties while in the Public Works Department were to carry out the provisions of the Building Ordinance. If I had the least suspicion that these walls were unsound I would not have sent these plans to the Public Works Department.

HUGH POLLOCK TOOKER recalled:—

I would wish to bring to the notice of the Court that in all the cases coming before the Court of collapses, the plans were prepared by European Architects, but in each case, they said that they had no power to supervise the construction. I believe if the work had been under the supervision of a European Architect, as soon as the roof was pulled off, he would have seen the bad state of the walls and would have doubtless pointed out the necessity of re-building them. Section 76 sub-section 3 of the Building Ordinance gives the Director of Public Works or any officer deputed by him power to enter any house, building or tenement where he has reasonable grounds for believing that within any house, building or tenement there are works being completed or carried out in contravention of this Ordinance.

Adjourned to 2.15 p.m.

F. A. HAZELAND,  
Police Magistrate.

30th August, 1901, at 2.15 p.m.

JOHN MITFORD ATKINSON sworn and examined:—

I am Principal Civil Medical Officer. I produce list of bodies received on the 14th and 15th August sent by the Police from the collapsed buildings at Nos. 32 and No. 34, Cochrane Street. I have also placed on the list the cause of death and the approximate age.

F. A. HAZELAND,  
Police Magistrate.

## LIST OF DECEASED PERSONS PUT IN BY INSPECTOR CUTHBERT.

No.	Names.	Age.	Sex.	Occupation.	Former Address.	
1	Fung Ki, .....	63	M.	Blacksmith,	No. 32, Cochrane Street, ground and first floors.	
2	Chau Kim, .....	19	M.	"		
3	Chau Chi, .....	17	M.	"		
4	Wong Tat, .....	20	M.	"		
5	Chau Fong, .....	20	M.	"		
6	Chau Sau, .....	21	M.	"		
7	Leung Cheung, .....	23	M.	"		
8	Chau Tak, .....	19	M.	"		
9	A-Kap Tsai, .....	21	M.	Fishmonger,		
10	Wong Lu, .....	35	M.	"		
11	Cheng Su, .....	15	M.	"	Father of No. 11.	
12	Visitor, .....	42	M.	Farmer,		
13	Ho Siu, .....	12	M.	Tailor,	No. 32, Cochrane Street, second floor.	
14	Wong Chong, .....	40	M.	Coolie,		
15	Wong Leung, .....	40	M.	Fishmonger,		
16	Ho Tang Hip, .....	32	F.	.....		
17	Ho Sing Tai, .....	5	F.	.....		
18	Ho Ling, .....	2	F.	.....		
19	Kong Tak, .....	18	M.	Coolie,		
20	Wong Su Man, .....	30	F.	Married woman,		
21	Leung Sum, .....	37	M.	Coolie,		
22	Kwok Kam Chi, .....	58	F.	Widow,		
23	Leung Woon, .....	10	F.	.....	No. 32, Cochrane Street, third floor.	
24	Leung Chap Ho, .....	1	F.	.....		
25	Pang Kai, .....	25	M.	Coolie,		
26	Pang Kan, .....	13	F.	.....		
27	Pang Nai, .....	9	F.	.....		
28	A-Kai, .....	60	M.	Coolie,		
29	A-Shü, .....	28	M.	"		
30	A-Sze, .....	30	F.	Married woman,		Husband of No. 30.
31	Name unknown, .....	30	M.	Coolie,		
32	Chu Sham So, .....	25	F.	Kept woman,		Central Market. No. 34, Cochrane Street. First floor. Needle woman.
33	Lau So, .....	45	M.	Stallholder,		
34	A-Chun, .....	25	F.	Married woman,		
35	Visitor, .....	40	F.	Unknown,		
36	A-Shap, .....	50	F.	Widow,		
37	A-Kum, .....	24	F.	Spinster,		
38	Cheung Nui, .....	8	F.	.....		
39	Chan Kau, .....	15	M.	.....	No. 34, Cochrane Street, 2nd floor.	
40	Chan Yit, .....	6	F.	.....		
41	Wong Chiu, .....	42	M.	Ship's Cook,	No. 34, Cochrane Street, 3rd floor.	

LIST OF BODIES RECEIVED AT MORTUARY FROM COCHRANE STREET  
DISASTER AND SEEN BY DR. BELL.

Date.	Sex.	Age.	Cause of Death.
17.8.01,	M.	50,	Burns.
	M.	40,	Burns.
	M.	32,	Suffocation.
18.8.01,	M.	18,	Injuries.
19.8.01,	M.	30,	Multiple injuries.
	M.	?	
	M.	50,	
	M.	15,	
	F.	15,	
	F.	17,	
	M.	?	
	F.	30,	
	M.	40,	
	M.	45,	
20.8.01,	M.	40,	Injuries.
	M.	40,	
	?	?	
22.8.01,	?	?	Injuries—very decomposed.
Total,..... 23 bodies.			

J. BELL,  
Medical Officer in Charge of Mortuary.

LIST OF BODIES RECEIVED AT GOVERNMENT MORTUARY FROM COCHRANE STREET  
DISASTER AND SEEN BY DR. J. M. ATKINSON.

Dates received at Mortuary.	Sex.	Approximate Age.	Cause of Death.
August, 14,.....	F.	5	Multiple injuries.
" 14,.....	M.	30	"
" 14,.....	F.	40	Suffocation.
" 15,.....	"	30	"
" 15,.....	"	2	"
" 15,.....	"	25	Multiple injuries.
" 15,.....	"	8	"
" 15,.....	"	40	"
" 15,.....	"	25	Suffocation.
" 15,.....	M.	40	Multiple injuries.
" 15,.....	F.	13	Suffocation.
" 15,.....	"	30	Multiple injuries.
" 15,.....	M.	20	"
" 15,.....	F.	35	"
" 15,.....	"	1	"
" 15,.....	"	2	"
" 15,.....	"	50	"
" 15,.....	M.	40	"
" 15,.....	"	45	"
" 15,.....	F.	35	"

Total 20 bodies.

August 30th, 1901.

J. M. ATKINSON,  
Principal Civil Medical Officer.

THE CORONER'S ABOLITION ORDINANCE SUPPLEMENTAL ORDINANCE, 1889.

I hereby certify that on the 30th day of August, 1901, I held, under the provisions of Ordinance 17 of 1888, an enquiry as to the cause of 43 deaths in the City of Victoria in the Colony of Hongkong and that the following particulars were then disclosed:—

1. Name of Deceased.

2. Occupation and Residence.

1. Fung Ki,.....	Blacksmith.	} 32, Cochrane Street, ground and 1st floors.
2. Chau Kim,.....	"	
3. Chau Chi,.....	"	
4. Wong Tat,.....	"	
5. Chau Fong,.....	"	
6. Chau San,.....	"	
7. Leung Cheung,.....	"	
8. Chau Tak,.....	"	
9. A Kap Tsai,.....	Fishmonger.	} 32, Cochrane Street, 2nd floor.
10. Wong Iu,.....	"	
11. Cheng Su,.....	"	
12. Visitor,.....	Farmer, (Father of No. 11)	
13. Ho Sin,.....	Tailor.	
14. Wong Chong,.....	Coolie.	
15. Wong Leung,.....	Fishmonger.	
16. Ho Tang Hip,.....	Nil.	
17. Ho Sing Tai,.....	Nil.	
18. Ho Ling,.....	Nil.	
19. Kong Tak,.....	Coolie.	
20. Wong Su Man,.....	Married woman.	} 32, Cochrane Street, 3rd floor.
21. Leung Sam,.....	Coolie.	
22. Kwok Kam Chi,.....	Widow, Nil.	
23. Leung Woon,.....	Nil.	
24. Leung Chap Ho,.....	Nil.	
25. Pang Kau,.....	Coolie.	
26. Pang Kan,.....	Nil.	
27. Pang Nai,.....	Nil.	
28. A Kau,.....	Coolie.	
29. A Shu,.....	"	
30. A Sze,.....	Married woman.	
31. Unknown,.....	Coolie, (Husband of No. 30).	

32. Chu Sham So, .....	Kept woman.	}	No. 34, Cochrane Street, 1st floor.
33. Lau So, .....	Stall holder, Central Market.		
34. A Chun, .....	Married woman.		
35. Visitor, .....	Unknown.	}	No. 34, Cochrane Street, 2nd floor.
66. A Shap, .....	Widow, Needle woman.		
37. A Kum, .....	Spinster, ..		
38. Cheung Nui, .....	Nil.	}	No. 34, Cochrane Street, 3rd floor.
39. Chan Kau, .....	„		
40. Chan Yit, .....	„		
41. Wong Chiu, .....	Ship's cook.		

(NOTE.—Only 41 persons have been traced by the Police as missing from Nos. 32 and 34, Cochrane Street. The extra 2 bodies sent to the mortuary were probably passers by or people sleeping on the pavement of the two houses.)

3. Where found and when and under what circumstances? Found under the débris of houses Nos. 32 and 34, Cochrane Street, which collapsed on the 14th August, 1901.
4. Date of death. 14th August, 1901.
5. Cause of death.—Burns, Suffocation, or Injuries.

NOTE.—The following are the names, residence and callings of the witnesses examined :—

- (a.) Liu Mui, married woman, 32, Cochrane Street.
- (b.) David Douglas Cuthbert, Inspector of Police.
- (c.) George Watt, Police Sergeant No. 11.
- (d.) Ho Heng Chi, draughtsman to Messrs. Palmer and Turner, Architects.
- (e.) Percy Thomas Crisp, Inspector of Buildings.
- (f.) John Bell, Medical Officer in charge of the Mortuary.
- (g.) Hugh Pollock Tooker, Acting Assistant Director of Public Works.
- (h.) Ernest Manning Hazeland, Civil Engineer and Architect.

F. A. HAZELAND,  
*Police Magistrate.*

ADDITIONAL DEPOSITIONS of witnesses taken by the above-named Magistrate in the re-opened enquiry into the above-mentioned deaths on the 20th, 21st and 23rd September, 1901, and additional Finding of the said Magistrate.

*20th September, 1901.*

*Present,—Mr. F. BOWLEY, Crown Solicitor.*

Mr. Bowley, Crown Solicitor, who appeared to conduct the examination of witnesses, said his Worship, on 30th August last, held an enquiry into the Cochrane Street disaster, and, as he understood from the certificate attached to the depositions, his Worship found that the causes of the deaths of the 43 people were burns, suffocation or injuries. It had been considered desirable that further evidence should be taken in connection with this inquiry, and he submitted that his Worship was there as Coroner and Coroner's Jury, and his Worship had all the powers and duties of the Coroner, and it was in his Worship's discretion to sit there with or without a jury. Consequently, he (Mr. Bowley) took it that his Worship was now sitting as Coroner and Coroner's Jury. The object was now to find out not the immediate cause of death, but what was the actual cause that led to the accident. The duties of a Coroner in England were laid down in Jervis' Office of Coroner as follows :—

“The coroner should therefore inquire as to the circumstances of the death; where and when the deceased died or was found dead; by whom he was last seen alive; who was present, or who first saw the body after death; whether any known illness existed; whether any negligence or blame is alleged against anyone.”

It was perfectly clear, Mr. Bowley continued, from the evidence that had already been taken that the cause of death was the falling of certain houses, and he submitted that the question now to be inquired into was what was the cause of the fall of these houses and whether it was caused by the negligence of any persons. He proposed to call certain witnesses, who had been heard before, in order to add to their evidence, and to call several new witnesses. He thought they might take the evidence already taken as part of the evidence of the inquiry.

CHAN CHÜN CHEUNG declared and examined by Mr. BOWLEY :—

I am dealer in matches in Hung Hom. I manufacture matches. I live at 42 and 44, Stanley Street. I own 32 and 34, Cochrane Street. On the 25th or 26th October, 1900, I agreed to buy 32, Cochrane Street. I completed the purchase on the 22nd December, 1900. I agreed to buy 34,

Cochrane Street, on the 6th or 7th November, 1900. The purchase was completed on the 8th November, 1900. When I agreed to purchase these two houses they had only three storeys. The price of 32, Cochrane Street, was \$9,900, and the price of 34, Cochrane Street, was \$9,800. I looked at the houses and found that another storey could be added and then I agreed to buy. Before I agreed to buy 32, Cochrane Street, I did not consult any one as to the feasibility of adding another storey. I have built 20 or 30 houses myself. I got a man to act as contractor for the building of these 20 or 30 houses. I have never built a house without employing a contractor. I never consulted Mr. Ram about 32 or 34, Cochrane Street. Last year I got Mr. Ram to do some work for me. I frequently went to the office. I never spoke to Mr. Ram or Mr. Gibbs about 32 and 34, Cochrane Street. The first architect I consulted about 32, Cochrane Street, was Mr. Hazeland. One or two days after the agreement to buy I consulted Mr. Hazeland. I told Mr. Hazeland I had bought No. 32, Cochrane Street, and I asked him to look at the house to see if the walls were strong so that I might add another storey. I asked Mr. Hazeland at his office. I did not ask him anything else. I told him if the floor could be added to make a plan for me. Mr. Hazeland then said he would go and look at it. After a few days I again went and saw Mr. Hazeland. Mr. Hazeland said—It could be done, the walls were strong. He said he would make a plan for me and get permission. The alterations I wanted were to the back-yard. The back-yard ran across the house, the kitchen was behind it. There were bridges on the upper floors to the kitchens. As the house stood originally there were two internal cross walls. I wanted these two cross walls to be pulled down and a single cross wall put up instead. The kitchen was to be put on one side of the house and the back-yard on the other side. The new cross wall was not on the same line as the old cross walls. The new wall was to be between the lines of the two old walls. The room in consequence would be slightly deeper. I also wanted a new storey added. Mr. Hazeland prepared the plans for the alterations. The plans were shown to me before they were sent. I signed the notice to the Director of Public Works that I intended to commence the work. This is a notice I sent in. [Notice put in and marked A.] This is the plan which was sent in with Notice A. [Plan put in and marked B.] The addition of the new floor involved the addition of a new verandah. I have seen this plan before. Mr. Hazeland prepared it for me. [Plan put in and marked C.] Plan C is a plan of the verandah in detail. There was already a verandah to the 1st and 2nd floors. Some time after I received a permit from the Public Works Department. The permit was handed to me by Mr. Hazeland. He handed me also plan B. [Permit put in and marked D.] I had purchased No. 34, Cochrane Street, before I had received permit D. After I had completed the purchase of No. 34, Cochrane Street, I went and saw Mr. Hazeland. Mr. Hazeland said the alterations would be the same as No. 32, Cochrane Street. He prepared plans for me. This is the plan of No. 34, Cochrane Street. [Plan put in and marked E.] I signed this notice. [Notice put in and marked F.] Mr. Hazeland afterwards handed me a permit. [Permit put in and marked G.] Plan E was also handed to me with Exhibit F. I do not remember if there was an enlarged verandah plan to No. 34, Cochrane Street. I believe Mr. Hazeland handed me a copy of Exhibit C, but I am not sure. After Mr. Hazeland had handed me these plans he had nothing further to do with the matter. The fee for each house was \$40. I employed Pun Wo of the Wo Ki to do the work. I started work on both houses at the same time.

The 1st floor and ground floor of 32, Cochrane Street, were let to the Tong Yik blacksmith shop. They were the tenants before I purchased the house. They paid me \$50 a month for the two floors. When I purchased the house the 2nd floor was unoccupied. The blacksmith shop did not remove during the alterations. The blacksmith had a forge on his premises. The blacksmith made verandah iron and made brackets like those on plan C. He also did other work. When I bought No. 34, Cochrane Street, the tenant of the ground floor was Wui On, building contractor. He was still there at the time of the accident. He paid \$34 rent a month. There was a cockloft on the ground floor to store beams and planks. I do not know where the *fokis* slept. On the 1st floor when I bought it, the tenant was Ng Yau. It was used as a family house. The monthly rent was \$24. Ng Yau was the tenant at the time of the accident. The 2nd floor was let to Yi Hing. It was used as a seamen's boarding-house. During the repairs the Yi Hing moved away. After the alteration the Yi Hing came back and occupied the 3rd floor. They paid \$28 a month. At the time of the accident the 2nd floor was occupied by Ip Chuk Sang. It was a family house. The tenant of the ground floor and 1st floor remained during the alterations. During the accident the family houses were divided in cubicles. At the time of the accident there were the following cubicles on each floor:—

32, Cochrane Street.

2nd floor, .....4 cubicles, 1 sitting room.  
3rd ,, .....4 ,, 1 ,,

34, Cochrane Street.

1st floor, .....5 cubicles.  
2nd ,, .....4 ,, 1 sitting room.  
3rd ,, .....No cubicles.

The 2nd floor of No. 32, Cochrane Street, at the time of the accident, was let to a man whose name I do not remember. He was a new tenant. The floor was used as a family house. The rent was \$22 a month. The tenant of the top floor of No. 32, Cochrane Street, at the time of the accident, was Leung Sam. It was used as a family house. The rent was \$26 a month. The Wo Ki have done work for me before. I made no written contract with the Wo Ki. I agreed with him as to the price. The price was \$2,350. This was to be cost of the whole of the alterations. Before I agreed on the price I showed plans *B* and *E* to the contractor. I went to see how the work was getting on. Sometimes I went once a day to see the work, sometimes two or three times a day, and sometimes once in a few days. I gave orders to the contractor as to how he should do the work. I handed the plans to the contractor. The alterations were carried out in accordance with these plans. I followed these plans in every detail. I see a new cross wall on the ground floor in Plan *E*. I put in an arch instead of the cross wall. I put in the arch to let in the air. The tenant afterwards put up a partition instead of the arch. I did not get permission from the Public Works Department to put in an arch instead of the cross wall. On the section in Plan *E* I see four brick arches dividing the kitchens from the yard. I did not put in these brick arches. I did not obtain from the Public Works Department permission to dispense with the four brick arches. I also see on Plan *E* a chimney to the four cook-houses and a chimney stack on the top of the house. I did not build the chimney nor the stack because they were useless. On the top of the roof of the cook-house on the top floor I put a small house a few feet high in order to go on to the roof. It is only a few feet high, so I did not get permission from the Public Works Department. I have never seen a small recess in the party wall in the ground floor of No. 34, Cochrane Street. In No. 32, Cochrane Street, I made similar deviations from the plans as were made in No. 34, Cochrane Street. In order to build this additional storey it was necessary to raise the party walls. There were three walls. I had to take the coping off these three walls. I had to take off between 1 and 2 feet of the old walls. I saw the old walls before the additions were made to them. I found the bricks of the old wall to be blue bricks. I examined the old walls carefully. Most of the bricks were whole bricks. Small pieces of bricks were used to fill up. In my opinion the party walls were strong enough to bear the additional floor. After I uncovered the walls I did not call an architect to see if the walls were good or not. When the walls were uncovered I did not see any Government Inspector come and inspect the wall. The ridge of the old roof was across the house. The party wall—the centre was higher than it is at the two ends. I did not take down the top of the party wall until it was level. This applies to all three walls. The bricklayer took out some bricks from out of the wall and put in some new bricks to form the corbelling. The top of the roofs were covered with two layers of Canton tiles. I did not intend to sell these two houses. These alterations were completed in the last decade of the 12th moon (from 8th to 18th February, 1901). I collect my own rents. I go to each floor each month. On the day of the collapse I went to both houses and to each floor. This was at 4 p.m. The blacksmith was working at his shop. I did not see any brackets fastened into the wall of the blacksmith's shop. I saw some tables and stools on the verandah of the 1st floor of No. 32, Cochrane Street. I saw this from the street. I saw no cracks or any other sign that the building was in a dangerous condition when I went that afternoon. I took down the front wall sufficiently far in order that I could put in the brackets for the verandah, and built it up again. There were three brackets on the top verandah. The wall was cut down level. I don't remember how much I took down of the back wall.

PUN Wo declared and examined by Mr. BOWLEY :—

I am contractor, carrying on business as the Wo Ki. My shop is at 3, Sing Wong Street. I have no partners. I am 36 years of age. I have been carrying on the Wo Ki for 11 or 12 years. I was formerly an apprentice bricklayer. Chan Chün Cheung employed me last year to do some alterations to No. 32 and No. 34, Cochrane Street. I agreed with him as to the price. The price was \$2,350. Before agreeing on the price I saw the plans. I understand an English plan. In Plan *B* the following is the new work :—A new cross wall including foundations ; to take down the old roof and raise the party wall ; to put on the beams of the third floor ; to build up the front wall ; to build in the brackets with cement ; to build two new door frames in the front wall ; to put a new roof on ; the roof was to be covered with flat tiles ; to take down two cross walls in each house ; to take down the old cook-houses and build 8 new cook-houses ; to build a wall with arches in it between the cook-houses and the yard, the last mentioned walls would require foundations. The cross wall on the ground storey in the plan is 14 inches but I built it 18 inches. There is a difference between the plans of No. 32 and No. 34, Cochrane Street. In No. 32 the internal cross wall shows one arch on the ground floor and two windows on each of the upper floors. In No. 34 there is an arch on each floor. On each plan there is shown a new chimney and a stack. The work on these two houses was one job. I did the whole work myself. I employed the bricklayers, carpenters and blacksmiths. I superintended the work myself. I only had these two plans to go by. I had no copy of plan *C*. I did the work according to the old verandah. The old party wall went up to a point in the centre. I had to take off the coping. I did not take down the party wall until it became level. The junction between the new work and the old was on a slope. I made the new bricks fit into the old bricks. In laying bricks I do not make one brick cover the other—the different joints should be covered with



another brick. Good bricks are sometimes of different sizes. If you buy 1,000 bricks, there are 700 whole bricks and 300 half bricks. The half bricks are good bricks. When I took off the coping I found there were whole bricks and half bricks in the walls. Every joint that I saw of the old wall was covered by a brick. The wall that I built was better than the old wall. When I built the new wall I used the old bricks. The Government (Naval Yard) does that. I have seen them doing it. I do not know why the wall collapsed. I thought it was safe to put the weight on. I would not dare to have done it if it was not safe. I do not know the weight which was being put on this wall. I saw that every part of the wall was safe. I made a careful examination of the lower part. I scraped off the whitewash from the wall to see if it was safe. I scraped off some whitewash from the blacksmith shop. I cut a hole in the blacksmith shop. I removed 3 bricks in length and 4 bricks in height. I wanted to see if the wall was good. I removed the bricks on or about the 22nd or 23rd December. I did not show the hole to Chan Chiin Cheung or anybody else. The hole was filled up at the completion of the work. The hole was made near the kitchen door of 32, Cochrane Street, outside the kitchen door, the street side of the kitchen door. It was 2 or 3 feet from the ground and was 7 or 8 feet from the kitchen door. I had to make the hole in order to make the new wall join the old one. The hole was 9 inches deep. When I was building there was no recess cut into the party wall of house No. 34 ground floor. I only made one hole to see if the wall was a good wall or not. I judged the three walls by the hole which I made. In order to insert the corbelling on the top floor I cut into it and inserted new bricks. Chan Chiin Cheung frequently came to see the work. He told me to do it according to the plan and to put in good material. The small house on top of the cook-house was built by me. This small house was 7 feet high. It was built of brick. There was one on each house. Chan Chiin Cheung told me to build this house. Chan Chiin Cheung told me not to put in the internal cross walls. He said the cross walls were useless. He also told me to build the arch instead of the cross wall. The arch was on the ground floor of each house. I built a chimney in No. 32 but not in No. 34. The stack was not built in No. 32 nor No. 34. I did not build a latrine on No. 34. The cost of the beams was the same as the brick wall. The cost of the arch would be about the same as building the wall. I did not see any Government Inspector come and view the building during the alterations.

ERNEST MANNING HAZELAND sworn and examined:—

I had nothing to do with No. 30, Cochrane Street. Chan Chiin Cheung came and asked me to see if the walls of No. 32 were strong enough to take another storey. I told him I would let him know about it. I sent Mr. Pearson to look at the walls. I told him to see if they were sound. I did not tell him to cut into them and examine them thoroughly. I did not tell him to examine the foundations. Mr. Pearson said that the walls appeared sound and good. I believe I informed Chan Chiin Cheung. I cannot remember. Chan Chiin Cheung instructed me to prepare plans for an additional storey and to alter the cook-houses. I had the house measured by Mr. Stuart, a draughtsman in my employ. The plans were made by Mr. Stuart under my supervision. Plan B is the original plan of the alterations in No. 32. I sent the plans to the Public Works Department. I subsequently obtained permit D and handed it to Chan Chiin Cheung. Plan C was prepared in my office and was sent by me to the Public Works Department. I sent plan B with a tracing. After I had handed plan B and permit D to the owner I had nothing more to do with that house. As far as I remember, the same course was taken with regard to No. 34. I sent Pearson to examine the wall of No. 34. Stuart made plan E and I got that passed in the same way. I did not go to these houses until after the collapse. You can tell from the outward appearance if the wall is really bad. It is possible for both the external faces to be perfectly good and yet the wall might be hollow in the middle. It is a prudent course to examine the foundations before putting on an extra weight. I did not calculate the extra weight to be put on these walls. I cannot say offhand what would be the pressure on the lower part of the party wall. Pearson has been an overseer in the building trade for 25 years. He was overseer working under the Building Ordinance in the Public Works Department for 5 or 6 years. He has had no practical training as an engineer or architect. For 7 or 8 years I was carrying out the provisions of the Building Ordinance in the Public Works Department. Pearson was my overseer in the Public Works Department for 4 or 5 years. I was working under the supervision of Mr. Tooker when he was in the Colony. All that Stuart had to do was to measure up the work. I believe there were two cross walls in each house with a yard between. It is not always the practice in submitting plans to show the old work as well as new. I would pass it when I was in the Public Works Department if the alterations were small but not if they were large. These plans do not show the old work. The pulling down of the cross wall would not weaken the party wall if the new cross wall was to be built in nearly the same position. The length of the party wall between the cross wall and front wall is 36 feet 4 inches. Unless the approval of the Director of Public Works is obtained no party wall is to exceed 35 feet. In this case it was approved. In the plan of No. 34 the depth is given at 34 feet 6 inches. There is an error in the dimension of one of them. This party wall is the extreme height allowed by the Ordinance. If it was half an inch higher it would have to be thicker. In the plan of No. 32 the length of the party wall is taken from the footing which is 6 inches below the floor. The proper way to ascertain the footing is to make a hole in the floor. In the Building Ordinance it is laid down that the old portion is to comply with the Ordinance as well



as the new. It is not possible to ascertain if a wall complies with section 10 of the Ordinance as amended without opening the wall. There is a provision in the Building Ordinance that black bricks shall not be used in the lower storey without the approval of the Director of Public Works. When there has been an addition to an old house it has not been the practice to require other than blue bricks in the lowest floor. There was nothing in the plans to show what bricks the walls were built of. Without a personal inspection it is not possible to say whether the building complies with the Ordinance. When I was in the Public Works Department and plans were submitted it was taken for granted that the buildings complied with the Ordinance. I saw the houses after the accident. My opinion of the cause of collapse was that there was a quantity of iron stored on brackets fastened to the party wall between 32 and 34, Cochrane Street. At the present time there are some small brackets on the party wall still standing. Also the place being a blacksmith's shop, hammering away at heavy material would tend to shake and weaken the wall. If there was a quantity of iron stored in the front verandah of the 1st floor it might have pulled out the front wall and pulled out the party wall. The roof rests on the party wall. If the front wall fell it would probably pull out the party wall as the two would be bonded together and tied together with tie rods. I think that it is more probable that the party wall collapsed first. The remains of the party wall have the appearance in places of two nine-inch walls built together. The ideal bricklaying is that if you put a knife into any joint you strike a brick. The vertical joints are several courses deep. In the remains of the party wall there were several broken bricks and pieces of bricks used. As a rule it is safe to build a new house with old bricks. I have no diploma as an architect or civil engineer. All my experience has been gained in the Public Works Department here.

Adjourned until to-morrow, 20th instant, at 10 a.m.

F. A. HAZELAND,  
*Police Magistrate.*

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21st September, 1901.

FREDERICK PEARSON sworn and examined :—

I am employed by Mr. Hazeland, Architect, as Clerk of Works and General Assistant. I was formerly an overseer in the Public Works Department. I was there for 6 years. While in the Public Works Department, I was Inspector of Buildings. I left the Public Works Department in June, 1900. I joined Mr. Hazeland in July, 1900. When I was in the Public Works Department the officials in charge of the Building Ordinance were Mr. Tooker, Mr. Hazeland and myself. The first thing I did last year in connection with No. 32, Cochrane Street, was to examine the walls. I was told by Mr. Hazeland to do this. I keep no diary or record of the work I do. I made this examination some time in November last year. I do not remember the date. The instructions Mr. Hazeland gave me were that the owner wanted to put another storey and I was to ascertain if the walls were in accordance with the Building Ordinance. Mr. Hazeland did not tell me to cut into the wall nor examine into the foundations. He did not tell me the weight of the additional storey. I found the wall all right. I ascertained the wall was all right by looking at them. I also found the thickness of the wall was in accordance with the Building Ordinance. I measured the thickness of the walls. I examined all the walls and could not find any cracks whatever. The houses were occupied at that time. I did not get the tenants to remove any of their property. I could examine the walls without anything being removed. I could see the wall in the blacksmith's shop without anything being removed. Against the party wall of the blacksmith's shop there was some sheet iron. I went to the next house and examined the party wall at the same spot on the other side of the party wall. I did not remove any of the dirt or whitewash from the wall. I did not use a plumb line. I could see without a plumb line that the walls were plumb. There was no indication of any crushing. I could not see the whole of the party wall from the ground floor to the coping because the floors were in the way. The inspection of No. 32 took me 20 minutes. I reported the state of the walls to Mr. Hazeland verbally. I afterwards made an inspection of No. 34, three or four weeks later. My inspection of No. 34 was similar to No. 32. I reported No. 34 in the same way. There are certain stipulations in the Building Ordinance with respect to foundations. I could not tell whether the foundations were in accordance with the Building Ordinance. When I was in the Public Works Department, when an architect sent a plan for additions or alterations, the foundations were never shewn. It was never required by the Public Works Department to be shewn. I am familiar with section 10 of the Building Ordinance requiring walls to be solid, properly bonded and to be put together with good material. I could not tell without opening the wall whether it complied with the section. It has never been required in the case of an old building when alterations or additions are to be made that the bricks of the ground floor are to be red brick. This wall was blue bricks. In my opinion the collapse was probably caused by the outlet being blocked and the water, owing to the rain, could not get away. The same thing happened to the Hongkong and Shanghai Bank at the Queen's Road entrance. I was Assistant Surveyor for years to the Cape Government Railway Line. I served no apprenticeship. I was

taken on 18 years ago by the Government for the Tai Tam Works under Mr. Price. When the Tai Tam Works were over, I was employed by Danby, Leigh and Orange, Palmer and Turner and W. Danby before I joined the Public Works Department.

JOHN LORRAINE STUART sworn and examined :—

I am draughtsman to Mr. Hazeland. I have been with him since March or April last year. I had no previous experience before I joined this office. I measured No. 32, Cochrane Street, last year in November. I measured No. 34, Cochrane Street, later. I made plans *B* and *E*. I did not make the tracing *C* or the original of it. The following were the measurements I made:—The depth and width of the goound floor, yard and also kitchen, also the height of the ground, 1st and 2nd floors. It took a quarter of an hour to measure each house. The dotted lines of the section of plan *B* represent the foundations of the internal cross walls. The foundations are new works. The new work is shown in red, pink and burnt sienna. New iron is shown in blue. New foundations are shown in blue and yellow. The old work is shown in neutral tint in plan *B*, indigo in plan *E*. The new work consists of new cross walls, new cook-houses, new internal cross wall and a new storey with a new verandah to it. The chimneys are new. In each plan the footing of the party wall is shown 6 inches below the party wall. This is what Mr. Hazeland told me to put down. I did not measure it. The measurement on the ground floor in plan *E* of 34 feet 6 inches is an internal measurement. The measurement on the ground floor in plan *B* of 36 feet 4 inches is intended for external measurement although marked as an internal measurement. This is a mistake. I think the two houses are of the same depth. In each of these two houses there were two cross walls formerly. I do not think it necessary to show the old cross wall. I forgot to show the foundation of the new internal cross wall in plan *E*. I did not think it necessary to show the old foundation of the old wall. I did not see the old foundation. Mr. Hazeland told me to make the new party wall 50 feet from the foundation. It is not necessary, in my opinion, to show any staircase. Mr. Hazeland saw the plan but did not take any notice of the plan properly. I measured the width of the street. The total time I spent in each house was 15 minutes.

JOSÉ MIGUEL XAVIER sworn and examined :—

I am Associate Member of the Institute of Civil Engineers. I am Assistant Engineer of the Public Works Department. I have been in the Department for 14 years. I took charge of the Building Ordinance work under Mr. Tooker on the 1st May, 1900, on the resignation of Mr. Hazeland. I had Mr. Pearson as overseer under me and part of a Chinese Clerk's services. Mr. Pearson resigned on the 15th June, last year. After Mr. Pearson resigned, I had the whole of the Chinese Clerk's time. The Chinese Clerk did the clerical work. I had no overseer after the 15th June, 1900. I gave up the Building Ordinance work on the 9th November last. Between the 15th June and the 9th November last year, I was single-handed. Besides the work under the Building Ordinance, I had three or four works—Public Works Extraordinary. For 5 months I had the supervision of all the private works in the Colony without any assistance. It was not possible to exercise an effective supervision over the works under the Building Ordinance. I reported this matter to Mr. Tooker, my superior officer, about the end of June. On the 9th November, I handed over the work to Mr. Crisp under instructions of Mr. Tooker. This notice *A* passed through my hands. The plan *B* was attached to notice *A*. It was simply passed through me to note and to be forwarded to the Medical Officer of Health. It was not my duty to examine the plan to see that it complied with the Building Ordinance except when I was particularly requested to do so. It is Mr. Tooker's duty to see that the plan complies with the Building Ordinance. I have never been to No. 32, Cochrane Street. It is not necessary to go and see the building. It is sometimes done. It is not necessary because the plan gives all the necessary information. We take it for granted that a plan submitted by a regular architect that the information in the plan is correct. There is nothing in plan *B* to show if the walls are red or blue bricks. There is nothing in the plan to show that the walls are properly bonded and solid throughout. There is nothing in the plan to show that there is a foundation to the old wall. I took Mr. Crisp round and showed him the various districts in the Colony. I did not show him the particular works.

PERCY THOMAS CRISP sworn and examined :—

I am Inspector of Buildings. I arrived in the Colony on 8th November, and arrived at the Public Works Department the same day at 12 noon. I went out with Mr. Xavier on the 10th November and went out for a fortnight, part of the time with Mr. Xavier, and part of the time by myself. I see by notice *A* that I measured the width of the street. I think it was on the 13th November. I never went into No. 32, Cochrane Street, either before or during the alterations. I had too much to do. I was strange to the Colony and did not know the names of the streets and it took me a considerable time to get through my work. In fact until up to Christmas, I did not do any inspection. On the 14th May this year I made a note of the fact that the verandah of No. 32 had been completed. I did this at the request of Mr. Tooker. I saw from the street that the verandah was completed. With the exception of measuring the street and of noting that the verandah was completed, I made no inspection of 32, Cochrane Street. On the 14th December, I measured the width of the street in

connection with No. 34, Cochrane Street. With the exception of measuring the street, I made no inspection whatever of No. 34, Cochrane Street. Since my arrival in the Colony, I have been the only inspector or overseer of private buildings for the whole Colony. I have nothing to add to my former evidence as to the cause of collapse. Since I last gave my evidence I have found among the débris, iron rods with a nut at one end which had evidently been used for a shelving or cockloft for storing iron pipes, &c. The iron rods are bolted through the floor joists throwing extra weight on the floor. This was in the blacksmith's shop. This is a common thing in the Colony in blacksmiths' shops. The floor joists have therefore to carry many hundredweights more than they were intended to carry. The wood work entering the wall from the wooden bearers causes cutting about of the party wall, and the extra vibration of the business of the smith might have contributed to the collapse. Sketch II is a sketch of a shelf which I suspect was in this blacksmith's shop. With defective walls it is not safe to have a blacksmith's shop on the ground floor of a tenement house. In my experience in England I have never seen a smith's shop under a tenement house.

Remanded until Monday, 23rd September, 1901, at 10 a.m.

F. A. HAZELAND,  
Police Magistrate.

24th September, 1901.

LEUNG TUNG declared and examined :—

I am managing partner of the Tung Yik blacksmith shop. We now carry on business at 41, Wing On Street. Up to the time of the collapse we carried it on 32, Cochrane Street. We were a year and a half at No. 32, Cochrane Street. We made verandah brackets, railings, and water pipes. The brackets were the heaviest things we made. I supplied building contractors with iron building materials. All the work was done on the ground floor. The forge was in front of the kitchen in the back part of the shop. The forge was nearer to No. 34, Cochrane Street. The bellows were between the wall and the forge. I could not pass between the forge and the wall. The staircase was on the 34, Cochrane Street side. Against the wall and between the staircase and the forge was a long working bench. The anvil was in the middle of the room. The anvil was 3 feet in front of the forge. The forge had a back and a hood. The forge was not moved at the time of the actual alterations—but the hood was. The alterations made my shop deeper. During the alterations the staircase was moved out two feet. I was away at the time of the accident. I went away on the 12th August and returned on the 18th August. Most of my material was stored on the ground floor in the middle of the shop. I stored a quantity of short pipes against the wall—the wall of No. 30. On No. 34, there was no room to store the pipes. I had no brackets against the wall of No. 34. I had brackets stored against the wall of No. 30 only. There were things against the wall of No. 34. They were sundry things. Most of the things were stored on the No. 30 side of the wall. The kitchen on the ground floor was used for storing sundry iron goods. The cooking was on the 1st floor. In the front part of the 1st floor my family lived in a cubicle and in the back part of my shop my *fokis* lived. In the verandah there were a few stools. There was no iron stored on the verandah. I had no spare anvil on the 1st floor. These verandah brackets are made of flat iron bars about 3 inches wide. I only bent the iron bars in the shop. The iron bars were made in England. I had to cut them, bend them in the proper shape and drill holes into them. The bars were half an inch in thickness. I had 20 *fokis*, they all slept at No. 32. Nine of my *fokis* were killed.

HENRY GARROD sworn and examined by Mr. BOWLEY :—

I am Police Sergeant 33. At about 11 p.m. on the 14th August last, I first saw the fallen houses in Cochrane Street. When I got there, there was a fire in the north-east part of No. 32. It appeared to be on the ground floor. It took the best part of an hour to put the fire out completely. The front walls and the verandahs had fallen out on the road. There was about 10 feet in height at the back of the party wall left, and the rest had fallen into the house. The floors had also fallen at an angle. The higher portion of each floor being against the standing walls. I was on special duty for 10 days clearing up the débris. The supports of the verandahs I found on the side channel on the east side of the street. They had fallen right down. There were no signs of any material being stored on the verandah. The whole of the material on the ground floor was turned over in searching for corpses. I found a quantity of iron rods and iron pipes in the blacksmith's shop. It was on the north side of No. 32. There was no indication of iron stored on the south side. I noticed a working bench on the south side. If there had been a quantity of iron on the south side I would have noticed it. There was no indication of a cockloft as sketched in Exhibit H on the ground floor of No. 32.

LEUNG TUNG re-called:—

I had no cockloft as sketched in Exhibit *I* on the ground floor of No. 32.

CHAN CHÜN CHEUNG re-called:—

The cockloft for storing beams and planks on the ground floor of No. 34 was from one party wall to the other. The cockloft was 10 odd feet deep. The small half of this cockloft was filled with timber. The cockloft was there when I bought the house. I did not notice a similar cockloft in the blacksmith's shop. I moved the staircase one or two feet out. The cubicles were put up by the tenants. After the alterations were completed, cubicles were erected on the 2nd and 3rd floors of No. 32, and on the 2nd floor of No. 34. The head of each staircase rests against a beam. The beam went right across the house from party wall to party wall. This beam is larger and stronger than the ordinary beam. The beams on the 1st and 2nd floors had to be moved.

HUGH POLLOCK TOOKER sworn and examined by Mr. BOWLEY:—

I carry out the duties of the Director of Public Works under the Building Ordinance. I have carried out those duties since April, 1890. The work has increased enormously, since that date. From the time I took over the duties up to June, 1900, the staff consisted of an assistant engineer and myself. For a number of years Mr. Hazeland was my assistant and on his resignation Mr. Xavier. Before Mr. Hazeland took over the duties I had Mr. Sample as an assistant. I had the whole of his time for Building Ordinance work. Mr. Hazeland followed Mr. Sample in January, 1892. Both Mr. Hazeland and Mr. Xavier were sometimes called off for other work. Until Mr. Pearson resigned in June last year he gave the whole of his time to the work. After Pearson resigned there was no overseer. Mr. Xavier handed over the whole of his work to Mr. Crisp. The staff which assisted me was reduced from an assistant engineer and an overseer to an overseer only. The work had increased enormously, practically three times. I have made representation to the Head of my Department repeatedly about the insufficiency of my staff. I have been able to give less and less time to the Building Ordinance work because my other work has considerably increased and my staff has been reduced. I received notice *A*, plans *B* and *C* early in November last. The first thing I do is to see if the plans comply with the Building Ordinance. I then pass them to the Medical Officer of Health to see if they comply with the Public Health Ordinance. This was done on the 6th November. He wanted the width verified. I sent Mr. Crisp to verify the width. This was found to be correct and I issued permit *D*. The permit is returned with the original plan to the architect, and I retained the tracing of the plan. Plan *C* had to go up to the Governor for approval. The detail plan for the verandah is filed in the office. I also received on the 7th December notice *F* and plan *E*. I examined the plan myself and passed it to the Medical Officer of Health. Mr. Crisp was sent to measure the street on the 19th December. Permit *G* was issued by me. I did not inspect either of these houses before the accident. Except Mr. Xavier and Mr. Crisp there was no other officer who could inspect these buildings. No officer did inspect these buildings. There was no examination of any kind whatsoever of these buildings by any officer of the Department either before or after the approval of the plans. Except with the approval of the Director of Public Works the old part of the buildings in which alterations are to be made must comply with the new Building Ordinance. Except with the approval of the Director of Public Works the walls of the lower storey must be of red brick, and except with the approval of the Director of Public Works, no party wall can exceed 35 feet in length except with a "return" or cross wall. On these three points the Director of Public Works has a discretion. With respect to the last point, I have a direction not to enforce that requirement in any case. This order was made in consequence of representations made by certain architects in this Colony. With respect to the solidity of the wall, the bonding of the brick work, the thickness of the walls and the foundations, there is a discretion in the Director of Public Works as regards old buildings—but not as to new buildings. With respect to old buildings the Director of Public Works has a discretion whether he will allow alterations and additions or not. I am acquainted with section 75, but would rather not express an opinion on the section. Plan *B* only shows the line of the top of the foundations of the old walls. I would take from plans *B* and *E* that there were foundations. It is the universal practice of architects not to show foundations of old walls, because it is unreasonable to expect the whole foundation to be opened up. It is the universal practice of the Public Works Department to approve of a plan submitted by an European architect without knowing whether the foundations are good or bad. This has been the practice for the last 12 years. The plans do not show whether the walls are of blue bricks or red bricks. The plans do not show if the bricks are properly bonded or solidly built. A plan could not show that except on a large scale which the Ordinance does not require. It is desirable before exercising any discretion of approving of alterations and additions to old work to make a personal inspection. It is not possible to inspect foundations without opening them up. It is not possible to see if a wall is properly built without opening it up and cutting into the wall. It is possible for an 18-inch wall to consist of two 9-inch walls without any bonding between them. Plan *B* shows that the wall is to be raised 50 feet high from the footing to the top. This is the maximum height allowed for this thickness of wall. It is shown in plans *B* and *E* that the houses are built fronting a sloping street.

Looking at plan *B* it is necessary that the lower party wall should be a greater length than the other unless its foundations are deeper. The elevation of the front of the house on plan *B* shows the upper party wall to be at least 50 feet by scale. Looking at that plan *B* it does not appear that in all probability the lower party wall is higher than 50 feet. Each wall in plan *B* is practically up to the same height. The floor level of No. 32 is a foot above the top of the footing of the foundations. The plan is therefore inaccurate. If the wall was made the same height as shown on the plan it would be 50 feet 6 inches. If the wall had been drawn correctly it would have shown that the wall would have been over 50 feet high when completed and therefore would not have been in accordance with the Ordinance. In plan *E* the party wall is shown as 50 feet high from a line 6 inches high below the floor level. The footings are 3 feet 10½ inches below the level of the floor. If the wall had been built in accordance with the plan it must have been 53 feet 4½ inches and therefore not of the thickness required by the Ordinance. It is never the practice for the Public Works Department to open up the foundations. We always rely on the architect to find out the depth of the foundations. In the case of houses built on the slope, I would not expect foundations to be of an average depth of six inches below the floor. As a rule the least depth would be six inches. It depends upon the nature of the ground. It is usual in submitting alterations and additions to show all the existing works as well as the new. These plans (*B* and *E*) do not show the existing work. There is nothing in the plans to show 2 cross walls. This is an important omission. There is nothing in the plans to show that the staircases are to be moved. In plan *E* no staircases are shown at all. In the plan *E* there are no foundations shown to the internal cross walls. The removal of the staircase would probably weaken the party wall. No detail drawings of the verandah of No. 34, Cochrane Street, have been submitted. The owner of No. 32, Cochrane Street, did not sign an agreement with respect to the verandah. That was the only reason why I sent Mr. Crisp to look at the verandah in May. I did not send him there to inspect it. I read an article in the *China Mail* in August, 1899, on jerry buildings, which gave rise to considerable discussion. There have been collapses before and since August, 1899. We had a discretion and could have told the architect that we would not have approved of the plans unless the buildings and foundations were opened up. We were bound to approve of these plans unless we knew that the plans were not in accordance with the Ordinance. I do not know if we had even the power to do that. There is nothing in the Ordinance to say that we must approve of the plan within a certain time. I noticed after the collapse the following deviation of the works from the plans. In No. 34, Cochrane Street, there is a large archway instead of a wall with a door in it. There is no internal cross wall as shown in the plan. There are no chimneys according to the plan. There is a pipe flue to serve the ground floor only. The pipe flue is not shown on the plan. There is a recess in the party wall between No. 34 and No. 36 in the cook-house on the ground floor. It is 2 feet 6 inches square and 9 inches deep. It appeared to be fairly new. On the roof was a superstructure built of brick work—7 feet high 5 feet square. I believe it had been used as a cook-house. Alongside of this cook-house there was another superstructure which had been partly broken away. In No. 32, Cochrane Street, there was an arch instead of a cross wall. The internal cross wall is not there at all. There are no chimneys there as shown in the plan. There is a similar superstructure as in No. 34 only not quite so high. It looked like a cook-house. The side of the superstructure appeared to be built on the party wall between the two houses. Superstructures of this sort built on the party wall are not considered as part of the main wall for the purpose of increasing the thickness. I think these deviations might have contributed to the collapse. I do not think the want of chimneys had anything to do with the collapse nor the superstructure on the roof. If the cross wall had been built it would have strengthened the buildings. I am still of the same opinion as to the cause of collapse as was given in my evidence on the 30th August. I do not think the vibration of the blacksmith's shop had very much effect on the house. In my opinion the party wall would have come down sooner or later without the additional storey. Each of these houses would, after the alteration, be allowed to house 55 persons under the Public Health Ordinance. During the year 1900 plans were deposited for raising 189 houses with an extra storey. Plans were approved for the whole of these 189 houses. I arrived in the Colony in April, 1890. I was placed in charge of the Building Ordinance and also works carried out under "Works Annually Recurrent Expenditure." That included "Maintenance of Government Buildings, Maintenance of the Public Cemeteries, Maintenance of the Praya Wall and Piers, Maintenance of Light-houses, Maintenance of Roads all over the Colony, Lighting the City with gas, Maintenance of the Public Recreation Ground, and other works of a miscellaneous kind which cropped up from time to time. Mr. Brown was then Surveyor General and my staff consisted at that time of an assistant engineer, two overseers for roads, three overseers for buildings, one overseer in charge of the cemeteries and one overseer for Building Ordinance work, besides two or three native foremen. Mr. Cooper succeeded Mr. Brown in 1891, and he gave me then another assistant engineer and added Maintenance of Telegraphs to my work. This staff was maintained until I went on leave in March, 1897. I returned to the Colony in March, 1898, and Mr. Ormsby was then Director of Public Works. He told me I would have to do with one assistant engineer. That was Mr. Hazeland, and nearly all his time was engaged in Building Ordinance work. Mr. Ormsby added to my work Maintenance of Buildings in the New Territory and Maintenance of Telegraph in the New Territory. I was invalided home in the Autumn of 1898 and returned to the Colony in December, 1899. My staff then consisted of one assistant engineer, two overseers of roads,

4 overseers of buildings, an overseer of the cemeteries, an overseer for the Recreation Ground, and a few native foremen. The principal overseer of Government Buildings (Mr. Gowenlock) resigned, and his appointment was not filled up at the time. It was not until the 1st November, 1900, that an assistant overseer was appointed locally and he was put upon Government Building work. In the meantime the principal overseer on roads in October, 1900, went home on sick leave and died on the passage home. His place was not filled up until a few days ago. I was left with one overseer for roads and telegraphs in the Colony, one for telegraphs in the New Territory until the beginning of 1901. I was then given the assistance of an assistant overseer. He was a sick man and could do very little. He was taken ill in February, 1901. I was again left with one overseer for roads and telegraphs until about the middle of the year when I got the assistance of Mr. Carroll who was formerly overseer on sewers. He worked with me for about a month and got sick and had to go home on leave. I then again was left with one overseer on roads and telegraphs. Just recently another overseer was appointed on roads and two more Portuguese foremen. When Mr. Crisp arrived, Mr. Xavier handed over his duties under the Building Ordinance to Mr. Crisp. Mr. Ormsby told me to do this.

WILLIAM CHATHAM sworn and examined by Mr. BOWLEY:—

I am Acting Director of Public Works. I was absent from the Colony from May, 1900, to March, 1901. I have never had anything to do with the Building Ordinance except as Acting Director of Public Works. I had nothing to do with these houses until after the collapse. I have inspected the remains of the houses since the collapse. I am of opinion that the cause of collapse was due to the bad construction of the party wall between the two houses. The addition of the new storey helped to contribute to the collapse. The foundations of this party wall have been opened. The foundations appeared to be good, strong enough to bear the weight of the wall. The ground under the foundations was good. If I was consulted as to the feasibility of adding another storey, I would have examined the walls carefully, knowing that the building was an old one. I would examine the walls externally first to see the nature of the material and the bonding of the walls as far as it was visible. It would be necessary to remove the whitewash. I would have considered it necessary to have examined the walls internally. I would then consider what weight would come on the walls if added to them. It would have been a prudent thing to do to open the foundations. Light smith's work would not have created any effect on the wall, if he had no machinery attached to the wall. The taking down of cross wall and altering the staircase would have a disturbing effect on the walls with which they were connected.

F. A. HAZELAND,

*Police Magistrate discharging the duties of Coroner.*

**Exhibit A.**

**THE BUILDING ORDINANCE, 1891.**

*Notice of intention to commence works.*

HONGKONG, 3rd November, 1900.

To the DIRECTOR OF PUBLIC WORKS.

I hereby give you notice pursuant to The Building Ordinance, 1889, as amended by Ordinance No. 7 of 1895, of my intention to commence the following works, viz.:—

To make additions and re-build cross wall; add verandah; in accordance with the accompanying plans.

No. of Lot, Inland Lot No. 1 Section A remaining portion.

Name of Street, Cochrane Street.

No. of House, 32.

Special or material particulars.—

Name and address of owner, or occupier, or agent, C/o. E. M. Hazeland.

(Signed) CHAN TSUN CHEUNG,  
*Signature of owner.*

(Statement of Capacity in which the party signs).

*Copy of minutes on Exhibit A.*

M. O. H.  
 (Signed) H. P. T.  
 6.11.00.  
 Is the width of the street correctly given?  
 (Signed) F. W. C.  
 7.11.00.  
 Width of street 25 ft. 3 ins. and 25 ft. 6 ins.  
 (Signed) P. CRISP.  
 Noted.  
 (Signed) F. W. C.  
 14.11.00.  
 Ackt. 1540.  
 17.11.00.

**Exhibit D.**

No. 1540.

PUBLIC WORKS DEPARTMENT,  
 HONGKONG, 17th November, 1900.

Notice has been duly received from Chan Tsun Cheung of intention to make additions and to re-build cross wall in house No. 32, Cochrane Street, on Inland Lot 1 Section A Remaining Portion in accordance with plan deposited in this Department by Mr. E. M. Hazeland.

The work is to be carried out in accordance with the terms of the Building Ordinance No. 15 of 1889 as amended by Ordinances 25 of 1891 and 7 of 1895.

I approve of the above plan as being in conformity with the Building Ordinance No. 15 of 1889 as amended by Ordinances 25 of 1891 and 7 of 1895 and for no other purpose.

The person on whose behalf this plan is submitted to me must satisfy himself that the building or work delineated in the plan will not, if carried out, infringe any of the provisions of the various Ordinances and Bye-laws relating to Public Health and in Particular that it will not infringe any of the provisions of Ordinance 15 of 1894 or any Bye-law made thereunder.

(Signed) H. P. TOOKER,  
*pro. Director of Public Works.*

**Exhibit F.**

**THE BUILDING ORDINANCE, 1891.**

*Notice of intention to commence works.*

HONGKONG, 7th December, 1900.

To the DIRECTOR OF PUBLIC WORKS.

I hereby give you notice pursuant to The Building Ordinance, 1889, as amended by Ordinance No. 7 of 1895, of my intention to commence the following works, viz:—

Additions and Re-building cross wall, &c. in accordance with the accompanying plans.

No. of Lot, Inland Lot No. 1 Sec. A Subs. 2.

Name of Street, Cochrane Street.

No. of House, 34.

Special or material particulars.—

Name and address of owner, or occupier, or agent.

(Sd.) CHAN TSUN CHEONG.

*Signature of owner.*

(Statement of Capacity in which the party signs.)

*Copy of minutes on Exhibit F.*

M.O.H.  
 (Signed) H. P. T.  
 8.12.00.  
 Is the width of the street correctly given?  
 (Signed) F. W. C.  
 11.12.00.  
 Mr. CRISP.  
 To measure width of street.  
 (Signed) H. P. T.  
 13.12.00.  
 Found street measures 25 feet  $1\frac{3}{4}$  inches one end.  
 25 feet  $2\frac{1}{2}$  inches the other.  
 (Signed) P. C.  
 14.12.00.  
 M.O.H.  
 (Signed) H. P. T.  
 14.12.00.  
 Noted.  
 (Signed) F. W. C.  
 17.12.00.



No. 1643.

## Exhibit G.

PUBLIC WORKS DEPARTMENT,  
HONGKONG, 19th December, 1900.

Notice has been duly received from Chan Tsun Cheung of intention to re-build cross wall and to make additions to house No. 34, Cochrane Street, on Inland Lot 1 Section 4 Sub-section 2 in accordance with plan deposited in this Department by Mr. E. M. Hazeland.

The work is to be carried out in accordance with the terms of the Building Ordinance No. 15 of 1889 as amended by Ordinances 25 of 1891 and 7 of 1895.

I approve of the above plan as being in conformity with the Building Ordinance No. 15 of 1889 as amended by Ordinances 25 of 1891 and 7 of 1895 and for no other purpose.

The person on whose behalf this plan is submitted to me must satisfy himself that the building or work delineated in the plan will not, if carried out, infringe any of the provisions of the various Ordinances and Bye-laws relating to the Public Health and in Particular that it will not infringe any of the provisions of Ordinance 15 of 1894 or any Bye-law made thereunder.

(Signed) H. P. TOOKER,  
*pro. Director of Public Works.*

Mr. Bowley then proceeded to review the evidence. He said it was quite clear, as he mentioned in re-opening the enquiry, that the deaths of these unfortunate people were caused by the collapse of the houses, and he took it that the object of the enquiry was to find out why the houses collapsed. In his opinion they had had overwhelming evidence from several expert engineers that the real cause was the faulty construction of the party wall between the two houses. That being so, the enquiry really limited itself to the finding out of the cause of the falling of the party wall, and his Worship would doubtless be of the opinion that its fall was brought about to a very great extent, if not altogether, by the addition of an extra storey comprising heavy beams and brick work. There were, perhaps, minor causes, such as the soaking of rain into the building and the vibration caused by the work in the blacksmith's shop, but in spite of these, Mr. Bowley said he would submit that the main cause of the collapse was the addition of the new storey to this old building, which was erected in 1878, and was originally a three-storey house. Built, as houses were in those days, of blue brick, it had somehow or other stood the wear and tear of usage and climate for some twenty-two years. Recently it changed hands, and the purchaser, seeing what was going on everywhere in the Colony, thought he would do the same as other house-owners and add another storey. Before carrying out his idea, he took professional opinion as to its feasibility, and went to work to find out if the walls were strong enough. The architect, who must have known how old the building was, did not take warning by the many collapses that had previously taken place, and thought it sufficient to send an overseer to look after the matter, with no instructions to make a careful examination of the building, but simply to look at the walls. The overseer went there and spent twenty minutes in each house. He never thought of looking at the foundations, or even of scraping away the whitewash from any part of the walls, and did not even plumb them except with his eye. He did not cut into them to ascertain their solidity—he simply looked at them. Then along came the draughtsman to measure the houses. He spent fifteen minutes of his valuable time there, and took three measurements—breadth, depth, and height of each floor. From these three measurements he drew up the elaborate plans that had been produced in Court, each of them absolutely incorrect in several respects. Then the plans were made out, omitting some important information that should have been included. They did not show two old cross walls that had to come down, and no foundations whatever except to the new wall. The height of the wall itself was mere guess-work—in one plan no staircases were shown at all. These plans were thought to be sufficient to send up to the Public Works Department, where they were given a cursory glance to by that very much overworked official, the Executive Engineer under the Building Ordinance. They then went to the Medical Officer of Health, whose only doubts were as to the height of the walls in respect of the width of the street. Accordingly an overseer was sent to measure the width of the street to satisfy the Medical Officer of Health, and the Director of Public Works, or, rather, Mr. Tooker on his behalf, issued a permit for the alterations and additions proposed. It had been pointed out in the evidence that the Ordinance required amongst other things that all walls shall be built solid, of good bricks properly bonded together, and that the lower storey must be built of red brick and so on, and under the Ordinance the Director of Public Works had absolute discretion in the matter of granting or refusing permits for additions or alterations to old buildings, unless the old building complied in every respect with the Building Ordinance. Yet no one in the Public Works Department ever took the trouble to find out whether the requirements of the Ordinance as to such alterations and additions were being fulfilled. From the beginning to the end no one ever thought of going and looking at the foundations, and it appeared as though the foundations had nothing whatever to do with the matter. Nobody even knew whether there were foundations or not until the opening up took place. The elaborate machinery of the Ordinance having been got through in this farcical way, the plans, after the formal approval of the Director of Public Works, were handed to the contractor or architect, and then the work of hacking and cutting this poor old party wall was commenced, till by degrees this death-trap, warranted to hold 55 people, was erected. No one ever inspected the work, from the commencement to the finish. This was a

matter which not only concerned the tenants; it concerned the man in the street, who supposed that the Public Works Department in this Colony protected him against houses falling upon him. The Ordinance said that "the Director of Public Works *shall* inspect a building during alterations." It was the duty, Mr. Bowley submitted, of the official in charge to refuse to sign these permits until he had satisfied himself on all points. It was no excuse in law because a man had no time to do a certain duty, that that duty should remain undone. If he had no time to inspect the building, it was in his power to refuse to sign the permit, or he might have referred the matter to the Government and thrown the responsibility on it. Instead of that, these plans were signed without any inspection being made by anyone. It was not as if this was a new thing. Houses had been falling down in the Colony in recent years in a most extraordinary way, and notice had been taken of the fact in the public newspapers and elsewhere. That was enough to put anyone on their guard to be more careful. He submitted that the persons to blame in the matter of the collapse were: In the first place, the architect on whose professional knowledge the owner relied, who gave it as his opinion, without making any examination at all, that the houses were fit and good; secondly, the official responsible in the Public Works Department, who, without making any examination whatever, passed the plans; and thirdly, the head of the Department, who had allowed the staff in charge of the duties of the Building Ordinance to dwindle down gradually, although the work was increasing, until it consisted of—Mr. Crisp. He had actually taken away the assistant engineer in charge of building work and appointed nobody save one overseer, who had just come out to the Colony and hardly knew the streets. In this way an Ordinance which had been very carefully framed had been allowed to dwindle down to a mere farce. Mr. Bowley, in conclusion, asked his Worship to bring in a verdict, in addition to his previous finding, that the deaths of these people were due to the adding of a new storey to the rotten party wall, and that the architect who recommended the addition and the Department which sanctioned it were guilty of gross negligence.

#### FINDING.

The evidence on this Inquiry does not disclose what was the immediate cause of the collapse of No. 32 and No. 34, Cochrane Street, on the night of the 14th of August, 1901.

The following conditions and circumstances, in my opinion, probably contributed to the said collapse:—

- (1.) The existence of a blacksmith shop on the ground floor of No. 32, Cochrane Street. It was proved in evidence that vibration has a tendency to weaken the walls of a house.
- (2.) On the ground floor of No. 34, Cochrane Street, was a cockloft used by the tenant, who was a contractor, for storing beams and planks.
- (3.) The defective construction of the party wall between No. 32 and No. 34, Cochrane Street. It was proved in evidence that the said party wall was badly bonded and that the heart of the said wall was hollow and filled in with small pieces of bricks.
- (4.) The existence of an extra storey which was put on each of the said houses six or seven months prior to the said collapse.
- (5.) That the showery weather prior to the collapse—hot one hour and then a heavy shower—would have caused considerable contraction and expansion of the material, and acting on the old walls would have considerably tended to the collapse.
- (6.) That there was a deviation by the owners from the approved plans while altering the said two houses. The principal deviation being the building of an arch instead of a wall and the total absence of internal cross walls.

Putting myself in the position of a Coroner's jury, I make the following suggestions or riders:—

- (a.) That the existence of blacksmith's shops under tenement buildings be prohibited.
- (b.) That all cocklofts used for storing heavy material be also prohibited.
- (c.) That all buildings or work under the Building Ordinance be carried out under the superintendence of a European Architect.
- (d.) That the provisions of section 72 of the Building Ordinance, which casts upon the Director of Public Works the responsibility and duty of approving only of such alterations and additions to old work or buildings as will render the building with the said alterations and additions absolutely safe (except in cases where the whole of such work or buildings including the old portion of the structure when completed complies with the provisions of the Ordinance) be carried strictly into effect.
- (e.) That the provisions of section 75 of the Building Ordinance, which casts upon the Director of Public Works or officers deputed by him the imperative duty of entering, inspecting and surveying every building work during its progress, for securing the due observance of the provisions of this Ordinance be carried strictly into effect.
- (f.) That the staff of the Public Works Department at present employed to carry out the provisions of the Building Ordinance is insufficient and ought to be increased without delay.

F. A. HAZELAND,  
Police Magistrate discharging the duties of Coroner.  
25th September, 1901.