

THEATER ARCHITECT DISAGREES WITH OTHERS ON CRASH CAUSE

Failure of Top Chord in Truss Blamed for Knickerbocker Collapse—Admits He Did Not Make Full Inspections.

Failure of the top chord in truss T-12 was blamed for the collapse of the roof of the Knickerbocker Theater by Reginald W. Geare, supervising architect of the building, when he took the stand yesterday afternoon at the coroner's request to fix the blame for the disaster.

Mr. Geare's testimony was in direct opposition to that of the board of Army and Navy experts, and also to that of J. H. Ford, the steel designer and contractor for the roof supports.

He admitted to the jury, during questioning by Maj. Gordon, United States district attorney, that he did not make full inspections to determine whether the building was in all respects secure, saying that it was the duty of the supervising architect to make a daily visit to the building.

Cannot Find Specifications.
Asked what had become of the specifications for the building, he said he could not find them, but admitted that such specifications were written. He did admit, however, that the steel plans did not show any dimensions, although he attempted to show the jury that all his plans contained full dimensions. He could not say that the redesigned steel work contained any more steel than that provided in the original plan.

Mr. Geare was questioned at some length regarding the failure to tie the Columbia road and stage walls together, failure to do which was attacked by the board of Army and Navy engineers. Geare did not remember that he gave instructions to either do this or not to do so.

William G. Carpenter said he did not see anything wrong with the iron work in any way, shape or form. Carpenter was an ironworker on the building.

Architect on Stand.
Reginald W. Geare, the architect of the Knickerbocker, next was called. He said he had been an architect for about twelve years, prepared at George Washington University, and took the beaux arts course. He did not receive a degree.

The plans and details of specifications for the theater were prepared by him, he testified, answering questions by Maj. Gordon. He was then directed to detail all the details in the preparation of the plans, after first telling the jury that he was in charge of the construction.

After the first set of plans the building did not proceed for about a year, witness said. They were prepared originally for Mr. Smallwood and Mr. Cassidy. After a year's time Mr. Crandall and others took over the ground. Smallwood and Cassidy, he said, sold the permit to Crandall and him. Another set of plans giving more details was later prepared, he declared.

Mr. Geare took up each set of plans and explained them to the jury, under questioning by Maj. Gordon.

The name of Costigan appeared on the plans as the District official who approved them.

The plans were made, he said, by M. S. Rich.

Declares Dimensions Shown.
"I have heard it said there were no dimensions on my plans," he said, "I went on. I want to show you that they were fully dimensioned," he said, pointing to dimensions on each plan.

He asserted that a copy of these plans was submitted with the application for a permit.

"Did the steel plans show dimensions?" asked Maj. Gordon.

"No, sir. The steel plans are tracings of these. These have the dimensions and show just where the steel is to be set."

"I'd like to show you how carefully the Columbia road wall was provided for," he continued, showing the jury the details on the plans.

"The blueprints are an exact copy of the originals," asked Mr. Hart, assistant corporation counsel.

He said the original drawings are submitted to the building department with the blueprints.

After the permit was issued, contracts were let, he said, and then he asked for bids from about six contractors, and could remember only the names of the Weller Construction Company and Frank L. Wagner Construction Company and William E. Mooney.

Frank L. Wagner Contractor.
The contract was let to Frank L. Wagner to construct the building, he testified. Witness said the contractor kept him informed of the names of subcontractors, who were

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collapse, was his theory, he testified. That started the events, just as a small leak in a dam starts a break, he went on.

Geare maintained that the beams were not the first to fall off the walls, as contended in previous expert testimony.

Maj. Gordon followed with a long series of interrogations around the point contended by Mr. Geare that the falling of one of the two pieces of steel caused the entire collapse.

Mr. Geare could not be shaken in his contention, but it was apparent that the district attorney was not convinced.

Asked by Maj. Gordon to tell why that break caused the rest to fall, he replied:

"Of course, I can't explain that. 'Did you examine the walls back of beams B 21 and 21?' Maj. Gordon asked."

"Yes, I examined them and found the beams had gone through the wall," witness testified. "It indicated that the truss T 12 caused the failure. This is clearly shown by some of the debris being thrown outward on the cornice."

He didn't know whether there was lesser amount of steel in the revised roof plans than in original plans.

Asked by Assistant Corporation Counsel Hart where his specifications for the material to be used were, he said he couldn't find them.

"I can't testify as to that, I am not an engineer. I relied on Mr. Rich," witness answered.

Careful in Drawing Plans.
He (Geare) took great care to make it substantial, Mr. Geare said, because it was his first theater, and he wanted it to stand.

"I was very proud of it. Great care was taken in providing sufficient details."

He said he constructed the York and Metropolitan theaters here and one in Cumberland, subsequent, however, to the Knickerbocker, answering the district attorney's questions.

The material was what he specified, of the best, and the walls stand today in wonderful shape, "a monument to fine masonry," he asserted.

On the point made by the service engineers' failure to tie the Columbia road and stage walls, he said it was not necessary as it was an "inside wall."

"Do your plans provide for tying?" "No."

"Then it wasn't your intention to tie them?" queried Maj. Gordon.

"I wouldn't say that I didn't intend to tie them, I didn't direct that they should not be tied, nor do I remember that I told them to do it."

"You don't contend it was tied, do you?" pressed Maj. Gordon.

"It was your business to see that it was tied."

Duty of Architect.
"Not necessarily. It is the architect's duty to go there once a day and see that the work is carried out generally; to see that the job is progressing properly in accordance with the plans."

"Who superintended the construction of the steel work?" "My engineer, I suppose; I don't recollect," witness answered.

"You left the details to the engineer?" "Yes, I left the details to the engineer. I don't know whether beams and trusses had requisite bearings or not."

"No, I didn't go into that," witness responded.

"Did you see that brick and terra cotta work was properly constructed?" "Yes."

"Did you see whether proper amount of cement was going into the tiles?" "Yes, I frequently went on the scaffolding to examine the work."

"Do you know personally why the building fell down?" Maj. Gordon continued.

"I have a theory," witness answered. "Of your own knowledge or knowledge from talking with your engineer?" Maj. Gordon interrogated.

"I haven't talked with him," Geare answered.

"Tell us, if you can, why it fell," Maj. Gordon directed.

Gives Opinion of Disaster.
Pointing to the various trusses, he said T-12 appears to be the one that failed first; vibration, and the fact that that truss chord at the top was faulty.

"Did you look to see whether it was faulty when it was put in?" asked Maj. Gordon.

Response in the negative brought a hot retort from Maj. Gordon. At the time the structure was built, Mr. Crandall said, he was to get 51 per cent of the common stock.

Maj. Gordon handed him a paper dated September (blank), 1916, purporting to be a contract for the building.

Mr. Crandall identified it. "Did you take any part in the erection of this building?" Maj. Gordon asked.

"No, sir."

"On whom did you rely?" Maj. Gordon continued.

"That would be left to the architect, and if he missed anything, I considered that it would be caught up by the building inspectors, as they rule supreme in theater building. However, I do not mean to cast any reflection there."

Reading parts of the contract of construction and architect's supervision, Maj. Gordon asked the witness if, when the building was completed, Mr. Geare notified him of the fact.

Witness answered in the affirmative. Maj. Gordon then read the letter of Mr. Geare, giving the notification, and which said that the building was finished in accordance with plans and specifications as revised.

"Mr. Crandall, what caused the collapse of that theater?" asked Maj. Gordon.

"It is the one thing in the world I'd like to know," witness responded.

"No, I certainly hope that this investigation will bring it out."

Witness Is Excused.
"Then you paid your money for the theater and that's all you know?" "Yes."

Substituted Roof Plan.
Maj. S. Rich, 1448 Harvard street, structural engineer, who made the general structural plans for the two first projects of the Columbia road site, was next called.

He was employed to design the steel framing and floor construction, he said, and furnished the wall construction, etc.

Frank L. Wagner, 1748 K street n. e., said he believed he was competent to appraise your work?" asked Coroner Nevitt.

"Yes."

"I take it you are a graduate engineer?" the coroner queried.

"Yes, sir, coroner."

He said he did not make any inspections of the steel, as he went into the Army.

How much personal supervision of the steel did you give?" Coroner Nevitt asked.

"None at all."

The witness said he turned the supervision of steel work over to engineers, but he did not have any recollection of turning this particular job over to an engineer.

"Do you know who took your place?" Coroner Nevitt asked.

"No, sir."

Maj. Gordon then took the witness.

Blueprint Identified.
He identified a blue print as the second set of steel plans that he drew for the theater. He was instructed by Maj. Gordon to tell of the main trusses substituted by Mr. Ford.

"I have no knowledge of that," he said.

He then, from the plans, detailed the girders which he designed for the building originally. The main beam was about 10 feet high, approximately six inches, he said.

He added he was informed that his plan was superseded by the Union Iron Works. He had no recollection of seeing the revised roof framing plans, although he said that it had been called to his attention.

That the revised plan had a note in his handwriting. He identified the note when shown to him, which was to the effect that it was to have "double" under all trusses.

Your note indicated that I beams should be forty-one above the ceiling. He said he saw that that beam was in.

The specifications showed that all steel work was to be "field riveted," Mr. Geare said.

Questioned on this point by Maj. Gordon, he said he didn't recall why they were bolted instead, but he told the jury that the building code allowed it.

Mr. Geare said he made an inspection of the wall last summer, during the redecoration period. He said if the wall had moved out at that time he would have noticed it by a parting of the cornice work. He said there was no such evidence.

"Did you walk over the roof last summer?" asked the coroner.

"I have been inside of the roof, I noticed there was vibration from street cars. Walking on the trusses did not make them vibrate."

"Who supervised the construction of that building?" asked Assistant Corporation Counsel Hart. "Which is the stronger, riveting or bolting?"

"I have talked with an expert; he said bolts are as strong as rivets, provided the bolts don't come loose," witness answered.

Mr. Geare admitted that changes were often made in specifications, but said the building department is notified only of important changes.

"Why didn't you notify the building department?" Mr. Hart asked.

"Because the code allowed it."

"Don't you know that rivets are 20 per cent stronger than bolts?" Maj. Gordon interjected.

"Provided the rivets are not loose," he said.

Crandall Takes Stand.
He was then excused, and Harry M. Crandall, president of the Knickerbocker Theater Company, owners of the building, took the stand.

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Reading parts of the contract of

lapsed?" Maj. Gordon asked.

"No, sir."

Asked by Mr. Hart why he made the notations for additional I beams, the witness replied:

"I supposed that it would have been required. It was to get that reaction sufficiently spread out so as not to crush the wall."

"Do you know whether your suggestion that double I beams be put in was carried out?" asked Mr. Hart.

"I saw no 'separators' and jumped to the conclusion that two beams were not used, as the code required separators," the witness answered.

"Do you know whether double I beams were used?" pressed Mr. Hart.

"I didn't climb up, but I would say they were not. I was not in a position to see them. My engineering knowledge would indicate they were not."

"Are bolts more lasting or safer than rivets?" asked Coroner Nevitt.

"Turn driven bolts are considered the highest form of connecting two pieces of steel. In other cases rivets, it is hard to say."

A turn driven bolt gets the same rating as a rivet, he said, in answer to Maj. Gordon.

Contractor on Stand.
Frank L. Wagner, 1748 K street n. e., said he believed he was competent to appraise your work?" asked the Knickerbocker Theater, next took the stand.

He started as an apprentice carpenter in 1881, later he was employed as an estimator and superintendent, and in 1902 started a partnership. He opened here in 1905. Since 1907 he has been operating as an individual builder.

The Knickerbocker was the first theater project he had ever built, he said. Subsequently, he built the Metropolitan Theater here.

He then went over previous evidence regarding the original contract and letting of subcontracts, already in the record.

He did not remember how many structural steel firms were asked to bid.

"You asked for more than one?" asked Maj. Gordon.

"Yes."

"Well, then, who were they?" pressed Maj. Gordon.

"Well, hesitating, 'Barber & Ross and C. A. Schneider's Sons. I don't recollect any more.'"

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