

## History and Rehabilitation of Reinforced Brick Ceiling

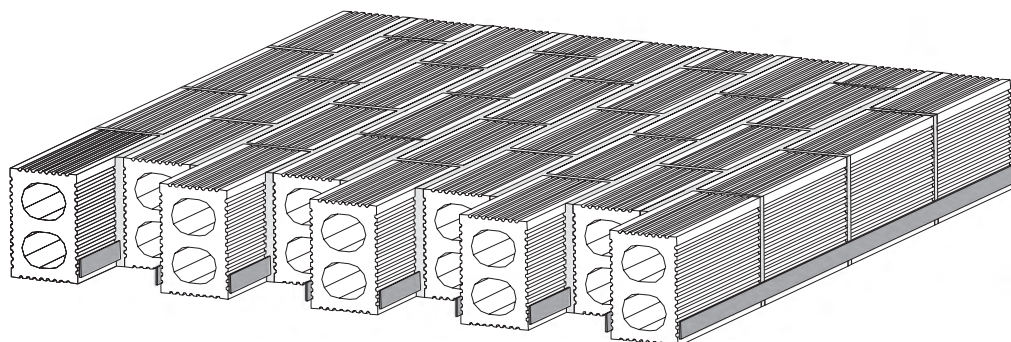
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### Introduction

This paper provides a current assessment of the fire resistance of a real-world example of a Kleinesche Decke. Knowing the slab's construction history is essential for its assessment. In Germany, Johann Friedrich Kleine obtained the patent for the first and still well-known reinforced brick floor (*Fig. 1*) in 1892. By 1910, more than 60 different slab systems of that kind came up here. For many years, this diversity outpaced that of reinforced concrete slabs developed at about the same time. However, above all, reinforced brick floor systems were also more widely used. Easy to build and inexpensive, reinforced brick floors shaped multistory construction worldwide since the early 20th century.<sup>1</sup>

### Current Structural Condition

The former Albert Schweitzer School in Hannover was constructed in 1896–1897. The building is to be converted into a residential building. Although all floor slabs are designed as a



*Fig. 1: Exemplary illustration of a Kleinesche Decke<sup>1</sup>*