

TEST ON CONCRETE USED IN A FLUID STATE.

On December 28th, 1904, a post with spiral reinforcement was made under the following conditions: The reinforcements, consisting of 7 longitudinal bars of 16 millimetres and spirals of 12 millimetres diameter rolled round a cylinder of 200 millimetres internal diameter with a pitch of 26 millimetres, were placed in a mould of square section 0.26 metres in diameter. The concrete, proportioned 450 kilogrammes of cement to 1,200 kilogrammes of sand and gravel, had been gauged with such an excess of water that it formed a liquid mud. This mixture was emptied into the mould, where it took its level without being rammed in any way. The percentage of metal was 2.1 for the bars and 4.3 for the spirals.

The post was tested on March 31st, 1905, and the maximum load sustained was 719 kilogrammes per square centimetre of the section within the spiral, and 357 kilogrammes per square centimetre for the total section, which was relatively excessive. It underwent a reduction in length of 2 per cent. The deformation was then stopped without causing rupture. In the making of this post the least possible care had been taken, yet it is interesting to notice that it supported a very high pressure.

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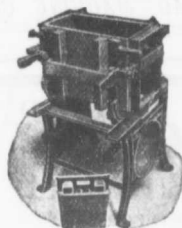
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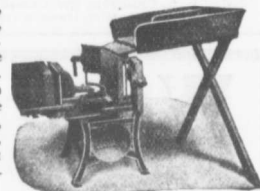
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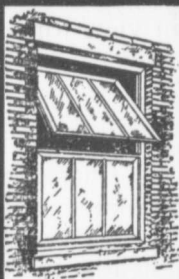


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