

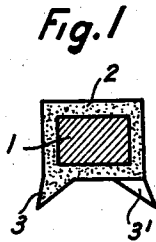
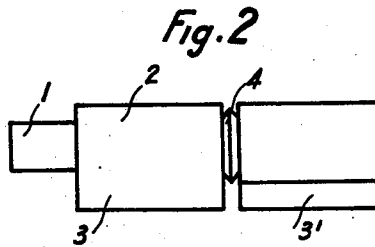
June 14, 1949.

M. A. LEFEVRE

2,473,104

ARRANGEMENT FOR SAWING STONES

Filed Aug. 7, 1947



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UNITED STATES PATENT OFFICE

2,473,104

ARRANGEMENT FOR SAWING STONES

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Patent expires February 2, 1966

4 Claims. (Cl. 125—21)

1

The sawing of stone with wire carrying at intervals small elements of a very hard material such as the tungsten compounds generally known under the trade name Carboram is well known. Heretofore the hard elements were not adapted to move along the wire.

Now my invention has for its object to locate the wire elements adapted to move longitudinally over it while in almost contacting relationship with one another, said elements being separated from one another by yielding means such as washers adapted to damp the shocks. This produces a sort of continuous system constituted by the washers and hard elements, which continuous system is entirely free to move longitudinally with reference to the wire on which it is fitted. The occurrence of discontinuous strains is thus prevented in the wire when any given element engaging the stone is subjected to a considerable resistance, such discontinuous strain leading to a breaking of the wire. Moreover it is also possible to avoid clogging of the intervals between the elements with stone-dust as may occur when they are secured rigidly to the wire, such clogging with stone-dust having a tendency to form with the wire and the hard elements a rigid unitary structure which no longer has the yieldingness required for it to pass around the pulleys over which the wire is trained.

I may use round or square hard elements adapted to be rotatable around the wire which has a round cross-section; but, in a modification of my invention, the wire serving as a carrier for the hard elements may be formed with a cross-section other than circular and which may for instance be square or rectangular and the hard elements are provided with openings of corresponding shape so that they cannot rotate with reference to the wire.

It is possible to provide on the part of the periphery of the elements adapted to engage the stone, points of very hard material adapted to receive a suitable lateral inclination for defining the set of the sawing arrangement while the portion of the periphery of the hard elements on the side opposed to engagement with the stone may remain smooth so as not to damage the grooves of the pulleys over which the sawing arrangement is adapted to pass.

A form of embodiment selected by way of example will be described hereinafter and is illustrated in the accompanying drawings. In said drawings:

Fig. 1 is a transverse diagrammatic cross-section and

2

Fig. 2 is a longitudinal elevational view thereof.

As shown in the drawings, there are fitted over the wire 1 of rectangular cross-section, elements 2 of very hard material such as the material known under the trade name Carboram, said elements being provided with openings the shape of which corresponds to that of the transverse cross-section of the wire. The portion of the periphery of the elements that is to engage the stone carries one or more points such as 3, said point being directed laterally towards the outside of the element while the following hard element has a point 3' that also directed laterally and outwardly but on the other side with reference to the axis of the wire. These points will define the set of the sawing arrangement. Obviously the points 3 and 3' may as well belong to the same element and a larger number of points may be provided. It is apparent that the rear side and lateral sides of the hard elements adapted to bear against the grooves in the pulleys should be smooth.

Between any two adjacent elements is inserted a washer 4 of the type called Grower washers for instance or else there may be inserted between such two adjacent hard elements a resilient arrangement of any description preventing said adjacent hard elements from impinging against one another.

What I claim is:

1. In a device for sawing stone, an elongated flexible element, a plurality of sawing elements of very hard material threaded on said elongated element, and resilient spacer means threaded on said flexible element between each successive pair of said sawing elements, said sawing elements and said spacer means being movable to a limited extent axially of said elongated element.

2. In a device for sawing stone, an elongated flexible element of non-circular cross-section, a plurality of sawing elements of hard material formed with an aperture of complementary cross-section to that of said elongated element and threaded on said elongated flexible element and resilient spacer means interposed between said sawing elements.

3. In a device for sawing stone in combination, an elongated flexible element of non-circular cross-section, a plurality of sawing elements formed with an aperture of complementary cross-section threaded on said flexible element and having saw-tooth projections of very hard material formed thereon in a relative position to engage a stone surface to be sawed, and a plurality of resilient spacer elements interposed be-

4

The following references are of record in the file of this patent:

5

10

Number

MARTIAL ARISTIDE LEFÈVRE

1. General Information
 2. Background
 3. Objectives
 4. Methodology
 5. Results
 6. Conclusion
 7. References
 8. Appendix
 9. Index
 10. Summary
 11. Abstract
 12. Introduction
 13. Discussion
 14. Conclusion
 15. References
 16. Appendix
 17. Index
 18. Summary
 19. Abstract
 20. Introduction
 21. Discussion
 22. Conclusion
 23. References
 24. Appendix
 25. Index
 26. Summary
 27. Abstract
 28. Introduction
 29. Discussion
 30. Conclusion
 31. References
 32. Appendix
 33. Index
 34. Summary
 35. Abstract
 36. Introduction
 37. Discussion
 38. Conclusion
 39. References
 40. Appendix
 41. Index
 42. Summary
 43. Abstract
 44. Introduction
 45. Discussion
 46. Conclusion
 47. References
 48. Appendix
 49. Index
 50. Summary
 51. Abstract
 52. Introduction
 53. Discussion
 54. Conclusion
 55. References
 56. Appendix
 57. Index
 58. Summary
 59. Abstract
 60. Introduction
 61. Discussion
 62. Conclusion
 63. References
 64. Appendix
 65. Index
 66. Summary
 67. Abstract
 68. Introduction
 69. Discussion
 70. Conclusion
 71. References
 72. Appendix
 73. Index
 74. Summary
 75. Abstract
 76. Introduction
 77. Discussion
 78. Conclusion
 79. References
 80. Appendix
 81. Index
 82. Summary
 83. Abstract
 84. Introduction
 85. Discussion
 86. Conclusion
 87. References
 88. Appendix
 89. Index
 90. Summary
 91. Abstract
 92. Introduction
 93. Discussion
 94. Conclusion
 95. References
 96. Appendix
 97. Index
 98. Summary
 99. Abstract
 100. Introduction
 101. Discussion
 102. Conclusion
 103. References
 104. Appendix
 105. Index
 106. Summary
 107. Abstract
 108. Introduction
 109. Discussion
 110. Conclusion
 111. References
 112. Appendix
 113. Index
 114. Summary
 115. Abstract
 116. Introduction
 117. Discussion
 118. Conclusion
 119. References
 120. Appendix
 121. Index
 122. Summary
 123. Abstract
 124. Introduction
 125. Discussion
 126. Conclusion
 127. References
 128. Appendix
 129. Index
 130. Summary
 131. Abstract
 132. Introduction
 133. Discussion
 134. Conclusion
 135. References
 136. Appendix
 137. Index
 138. Summary
 139. Abstract
 140. Introduction
 141. Discussion
 142. Conclusion
 143. References
 144. Appendix
 145. Index
 146. Summary
 147. Abstract
 148. Introduction
 149. Discussion
 150. Conclusion
 151. References
 152. Appendix
 153. Index
 154. Summary
 155. Abstract
 156. Introduction
 157. Discussion
 158. Conclusion
 159. References
 160. Appendix
 161. Index
 162. Summary
 163. Abstract
 164. Introduction
 165. Discussion
 166. Conclusion
 167. References
 168. Appendix
 169. Index
 170. Summary
 171. Abstract
 172. Introduction
 173. Discussion
 174. Conclusion
 175. References
 176. Appendix
 177. Index
 178. Summary
 179. Abstract
 180. Introduction
 181. Discussion
 182. Conclusion
 183. References
 184. Appendix
 185. Index
 186. Summary
 187. Abstract
 188. Introduction
 189. Discussion
 190. Conclusion
 191. References
 192. Appendix
 193. Index
 194. Summary
 195. Abstract
 196. Introduction
 197. Discussion
 198. Conclusion
 199. References
 200. Appendix
 201. Index
 202. Summary
 203. Abstract
 204. Introduction
 205. Discussion
 206. Conclusion
 207. References
 208. Appendix
 209. Index
 210. Summary
 211. Abstract
 212. Introduction
 213. Discussion
 214. Conclusion
 215. References
 216. Appendix
 217. Index
 218. Summary
 219. Abstract
 220. Introduction
 221. Discussion
 222. Conclusion
 223. References
 224. Appendix
 225. Index
 226. Summary
 227. Abstract
 228. Introduction
 229. Discussion
 230. Conclusion
 231. References
 232. Appendix
 233. Index
 234. Summary
 235. Abstract
 236. Introduction
 237. Discussion
 238. Conclusion
 239. References
 240. Appendix
 241. Index
 242. Summary
 243. Abstract
 244. Introduction
 245. Discussion
 246. Conclusion
 247. References
 248. Appendix
 249. Index
 250. Summary
 251. Abstract
 252. Introduction
 253. Discussion
 254. Conclusion
 255. References
 256. Appendix
 257. Index
 258. Summary
 259. Abstract
 260. Introduction
 261.

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the situation.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what is to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete each task.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress to ensure that the project is on track.

5. The final step is to evaluate the results of the project. This involves assessing the outcomes against the objectives and goals and identifying any lessons learned for future projects.

[illegible][illegible]

1. The first step in the process of the investigation is the identification of the problem. This is done by the investigator who is responsible for the investigation. The investigator must identify the problem and the scope of the investigation.

[illegible]

Certificate of Correction

Patent No. 2,473,104

June 14, 1949

MARTIAL ARISTIDE LEFEVRE

It is hereby certified that errors appear in the above numbered patent requiring correction as follows:

In the grant, line 14, for "February 2, 1966" read *February 8, 1966*; in the heading to the printed specification, line 5, for "February 2, 1946" read *February 8, 1946*; line 7, for "February 2, 1966" read *February 8, 1966*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 20th day of December, A. D. 1949.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.