

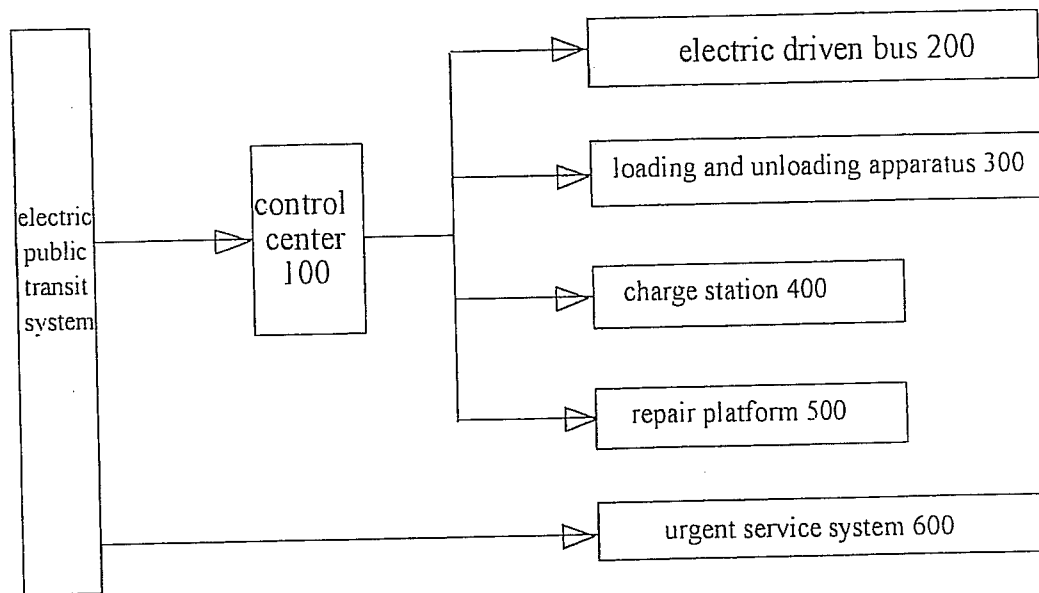


Fig 1

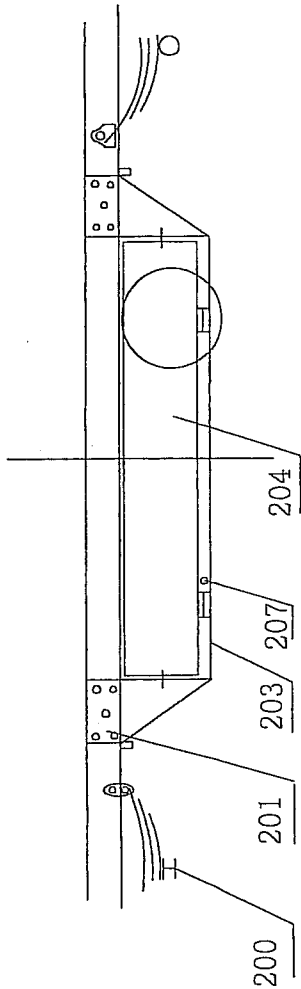


Fig 2A

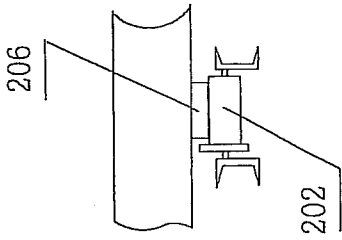


Fig 2B

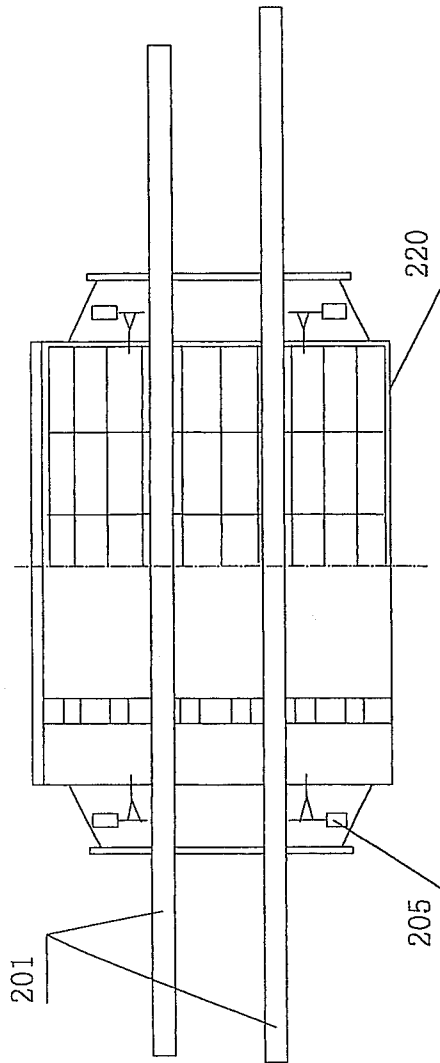


Fig 2C

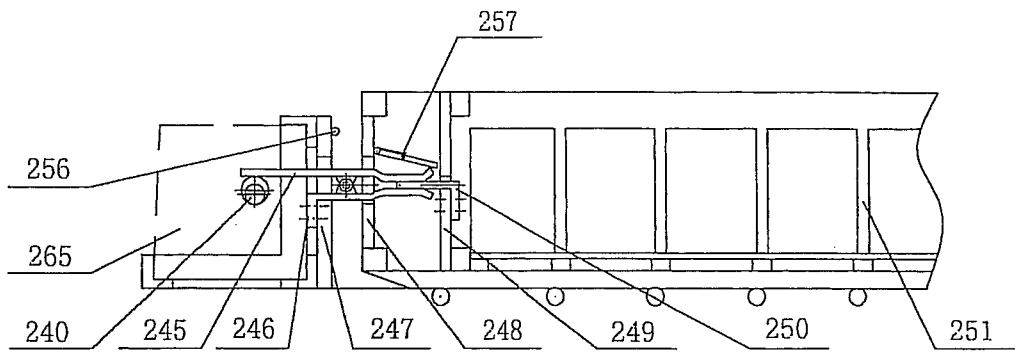


Fig 3A

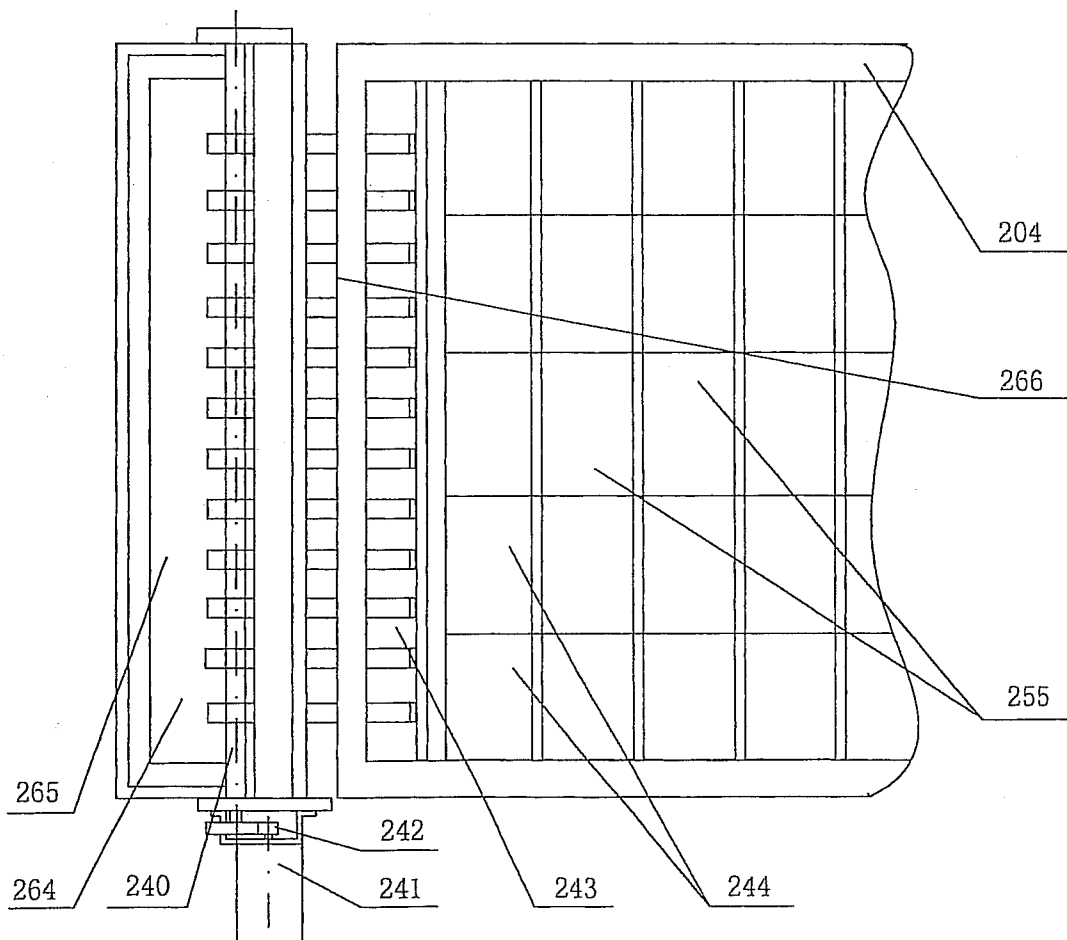


Fig 3B

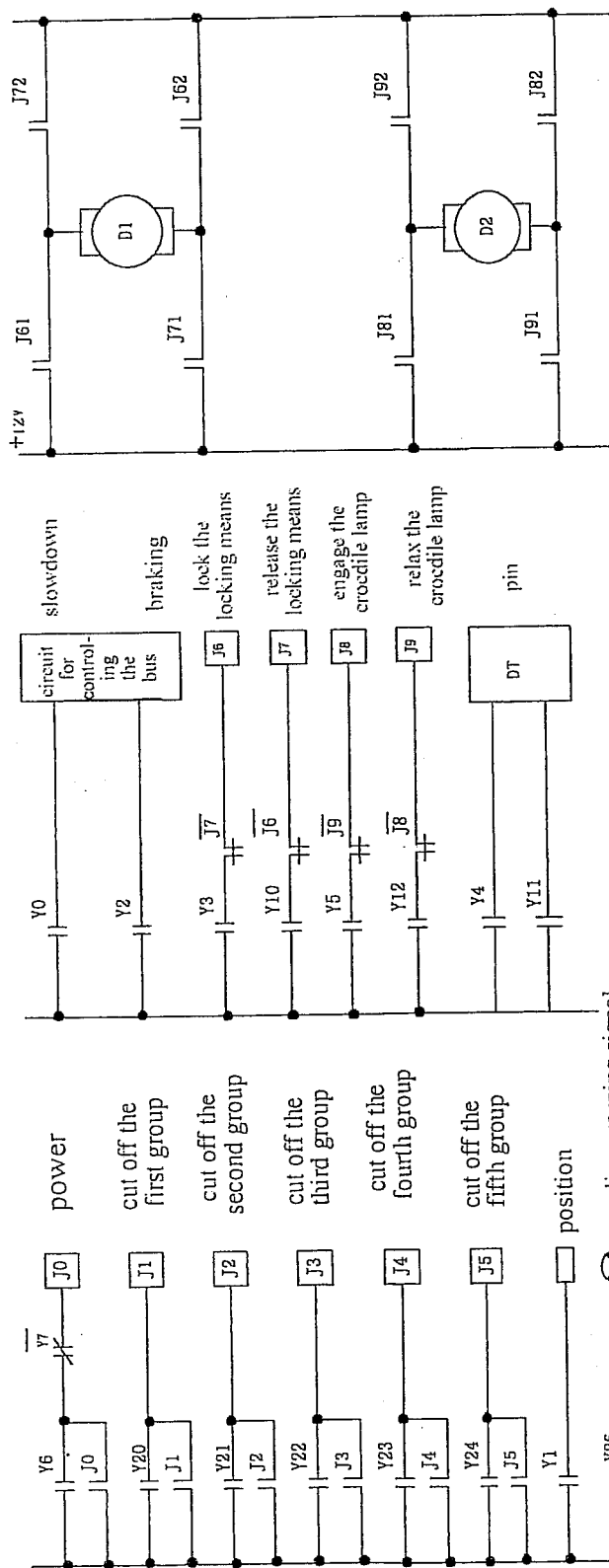


Fig 4A

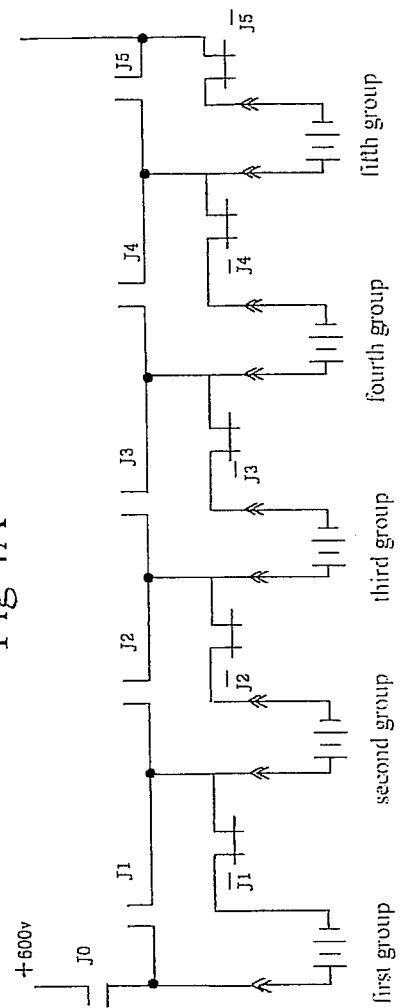


Fig 4B

Fig 4C

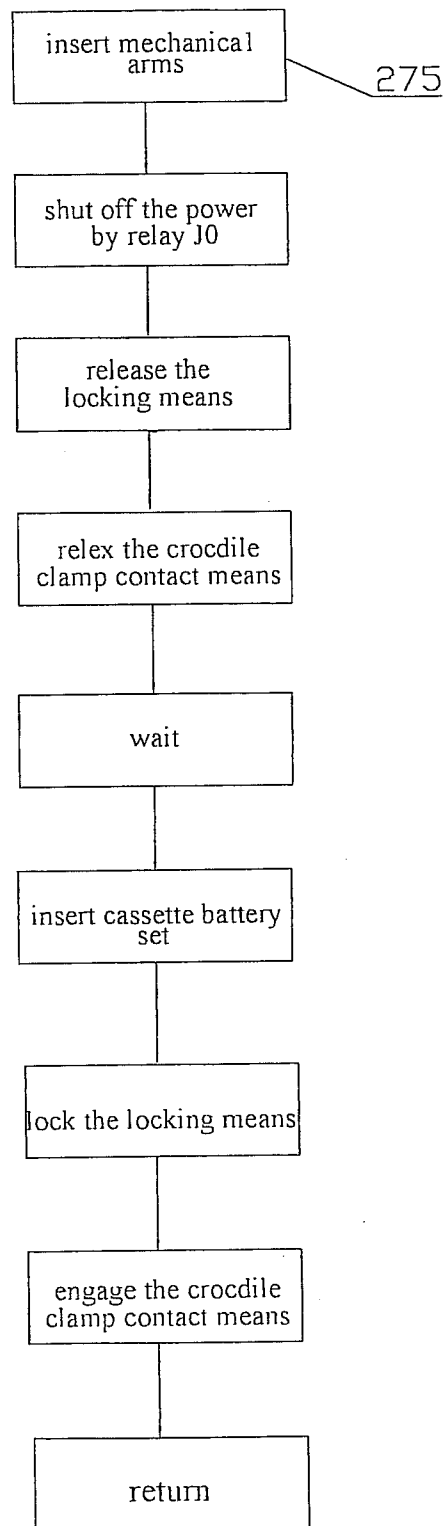
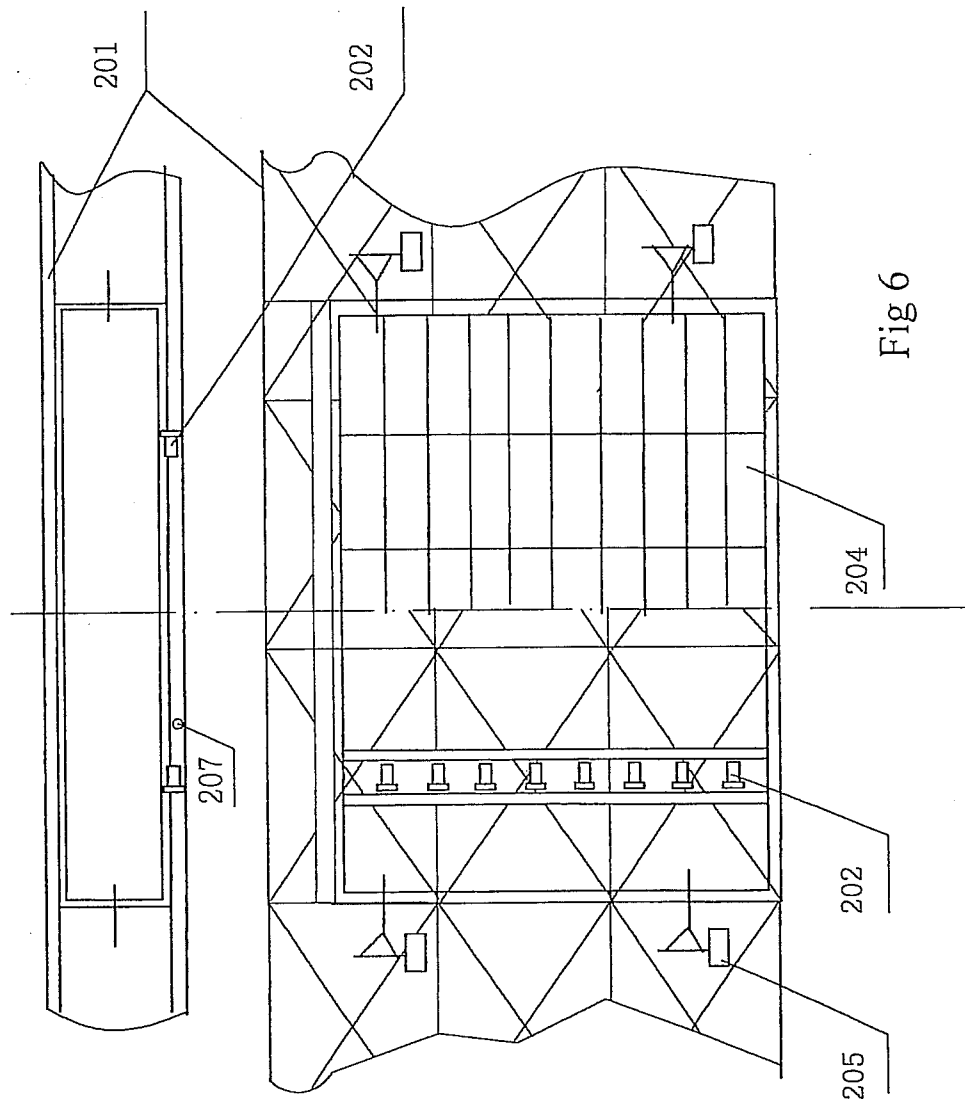
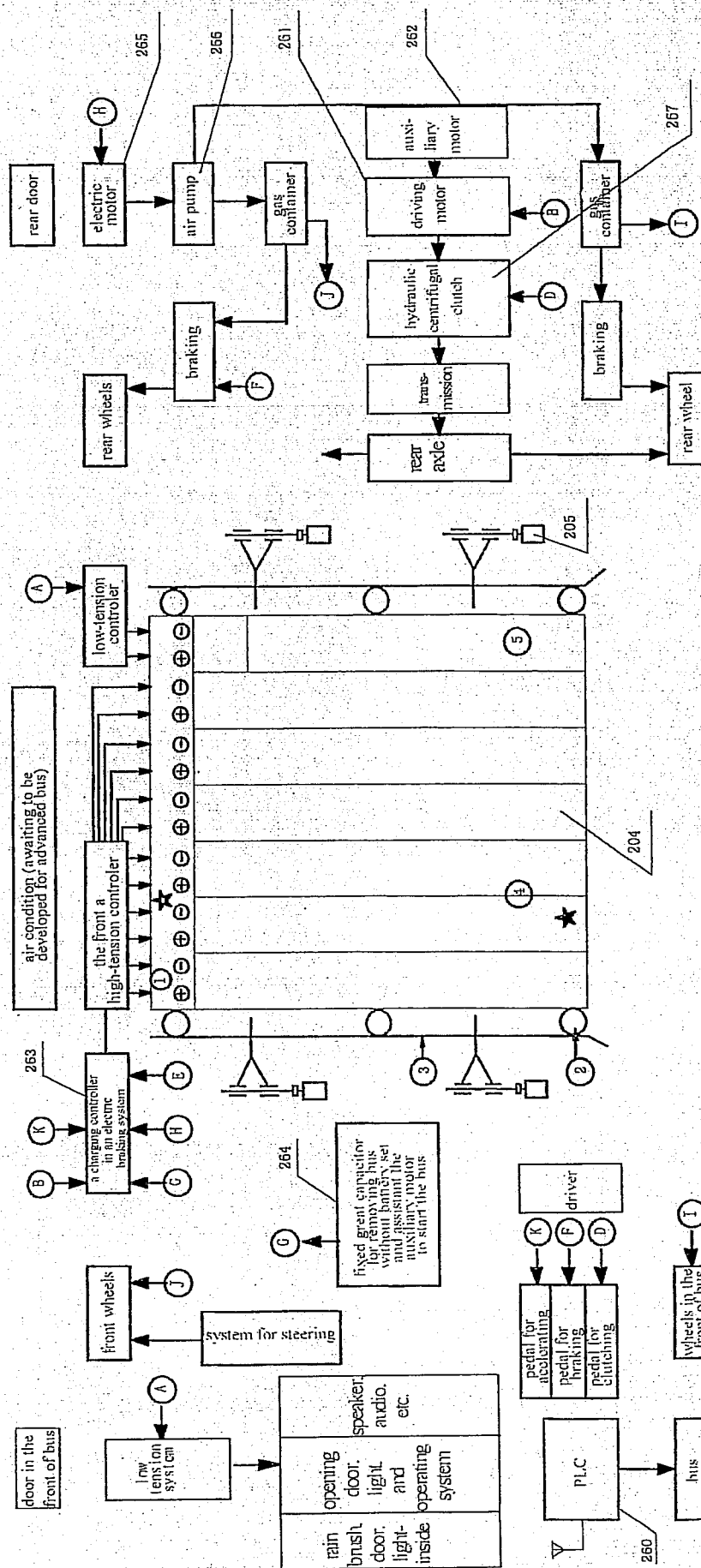


Fig. 5





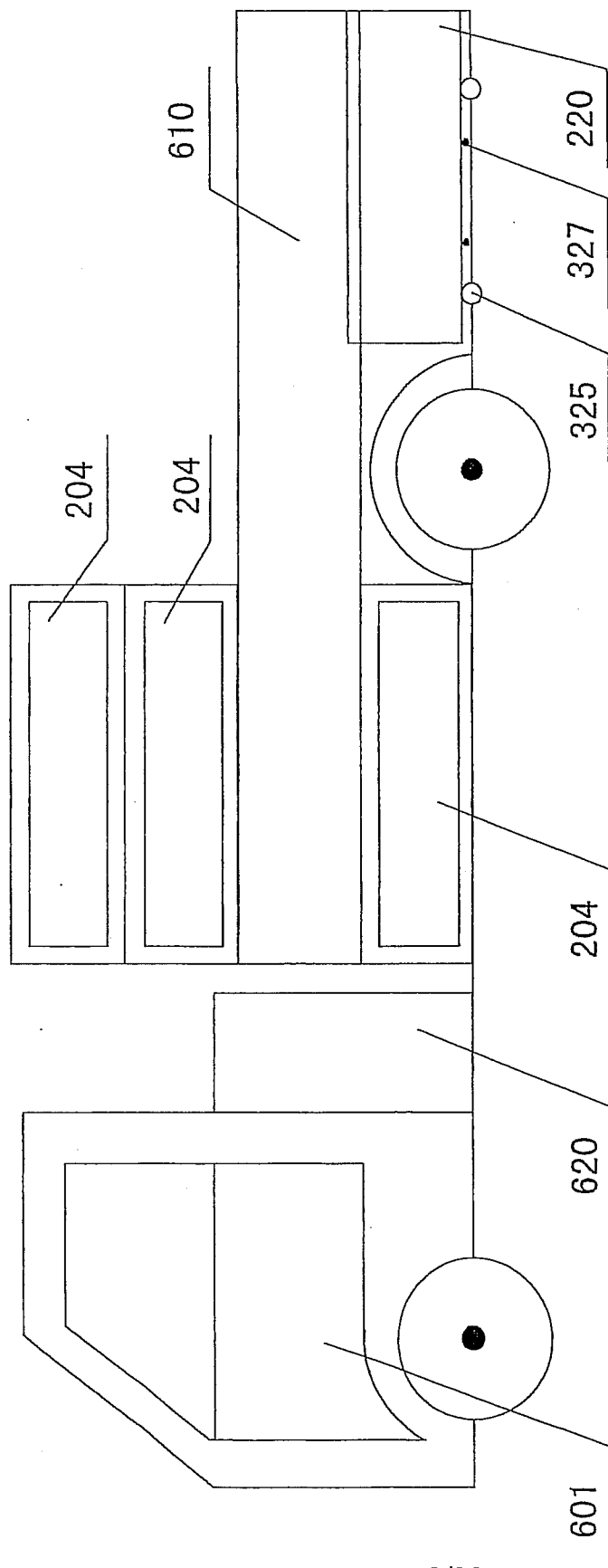


Fig 8

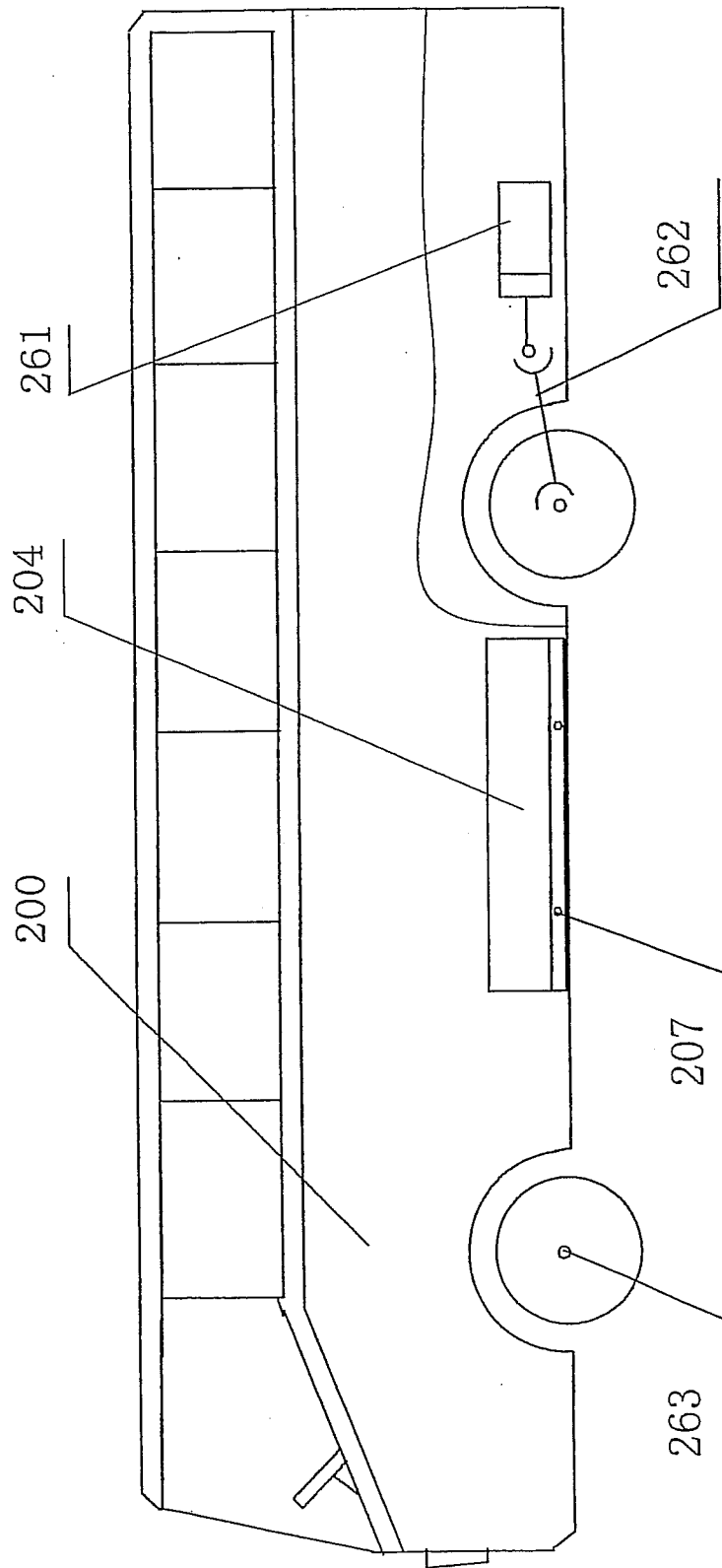


Fig 9A

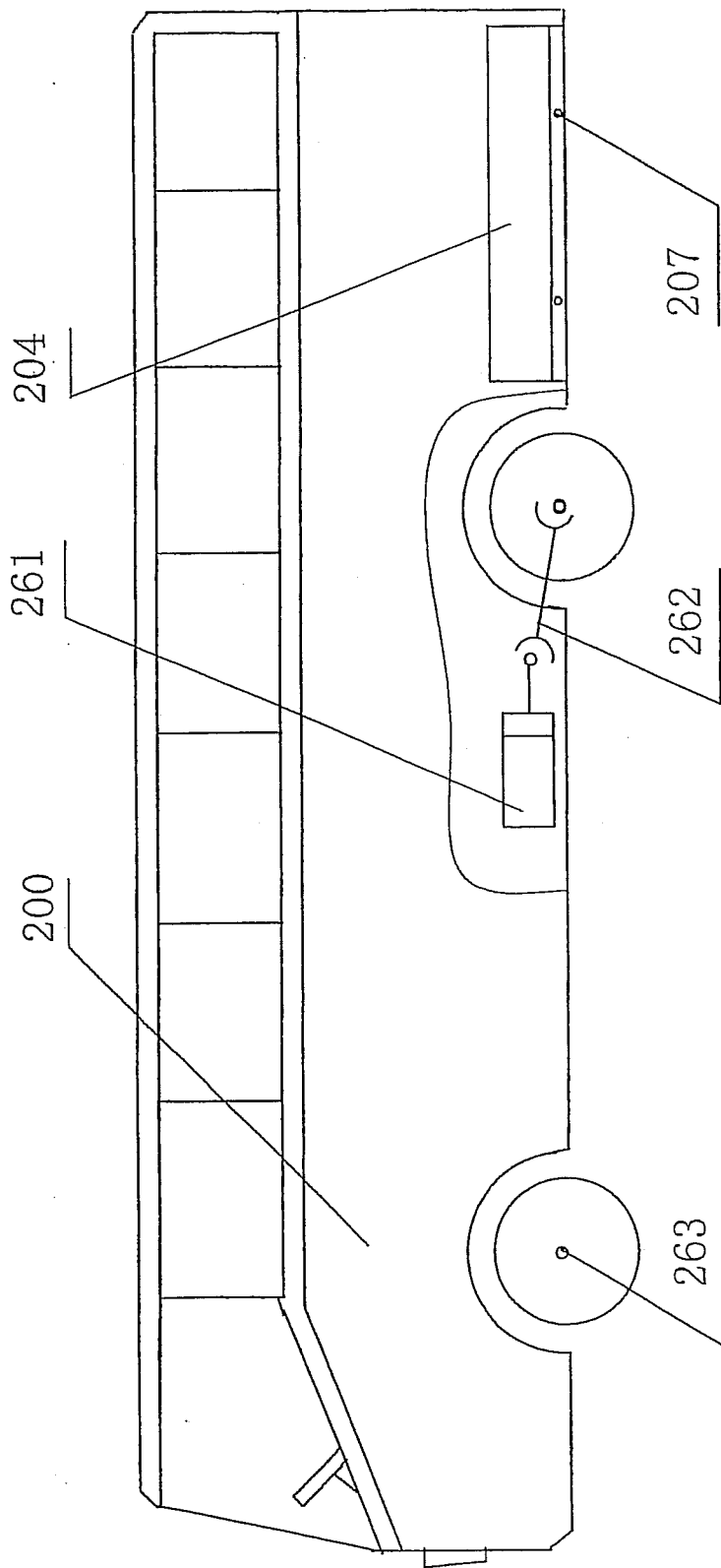


Fig 9B

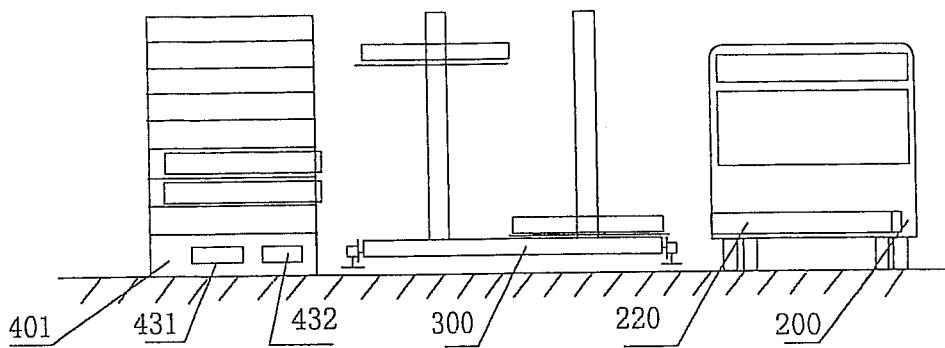


Fig 10A

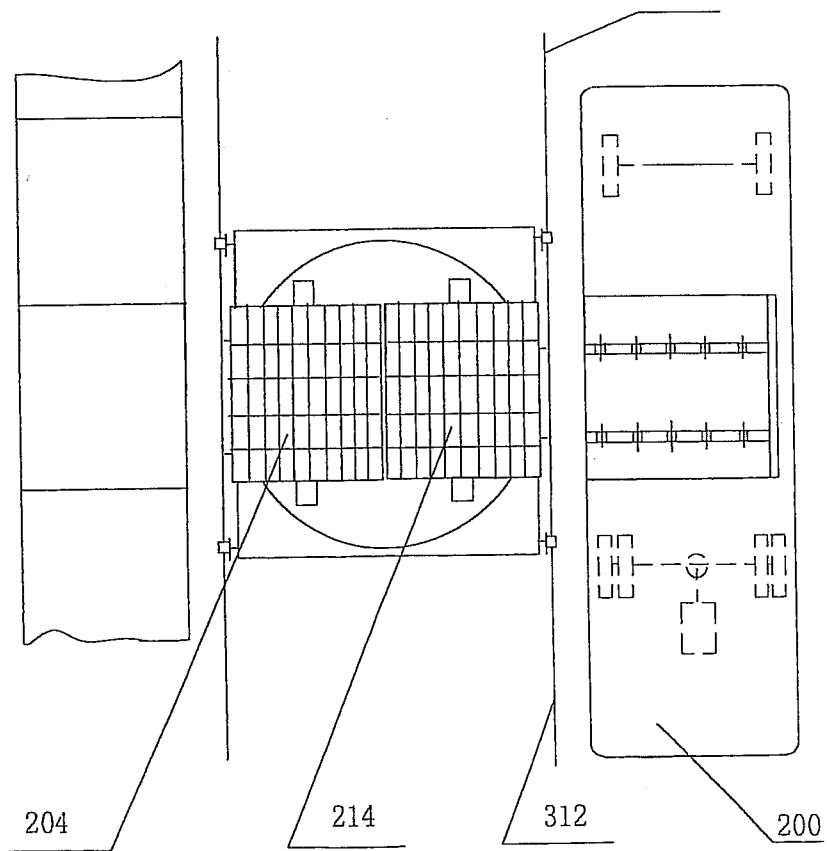


Fig 10B

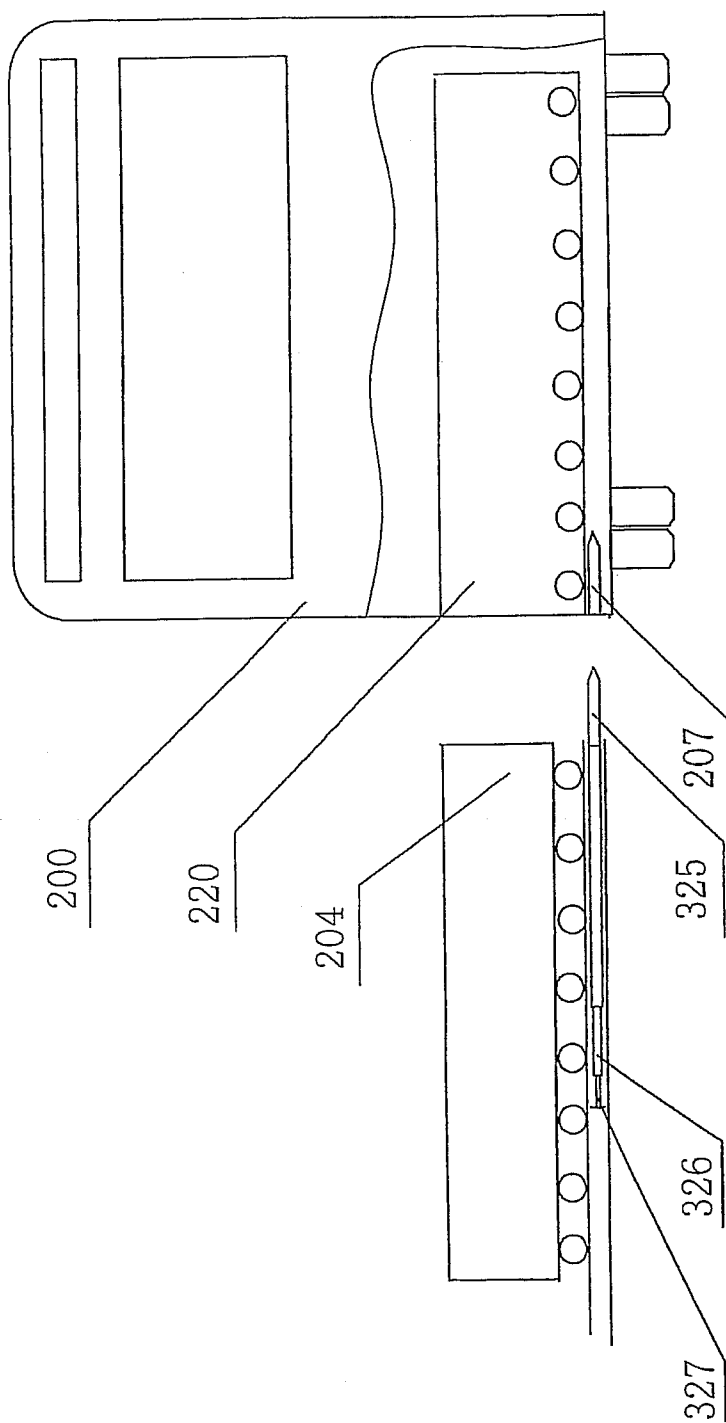


Fig 11

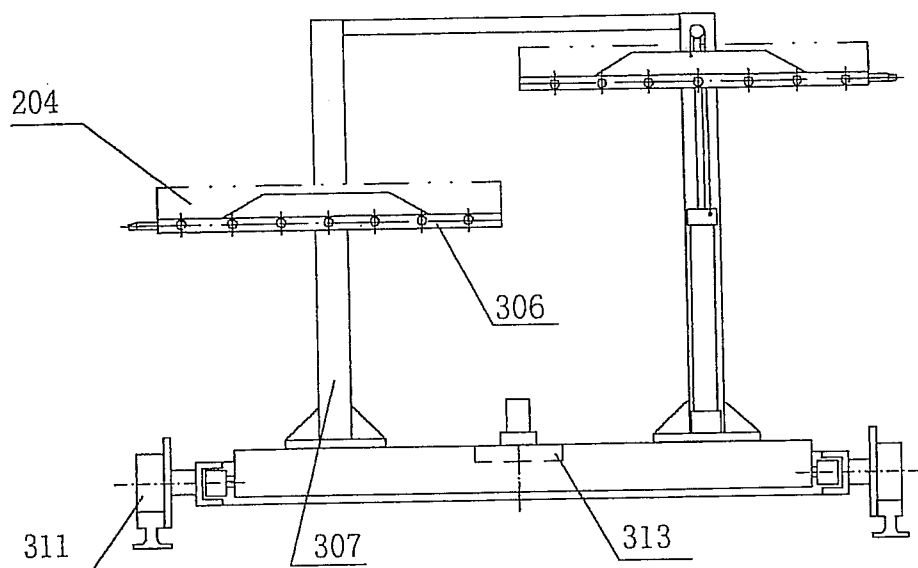


Fig 12A

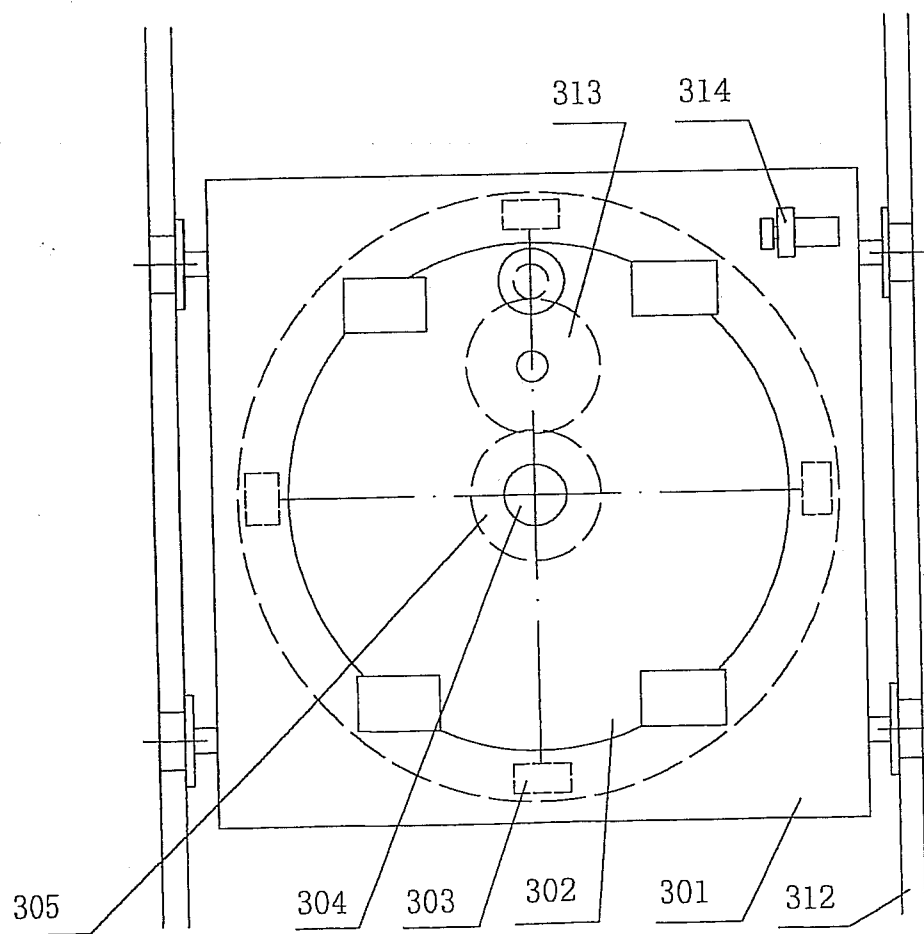


Fig 12B

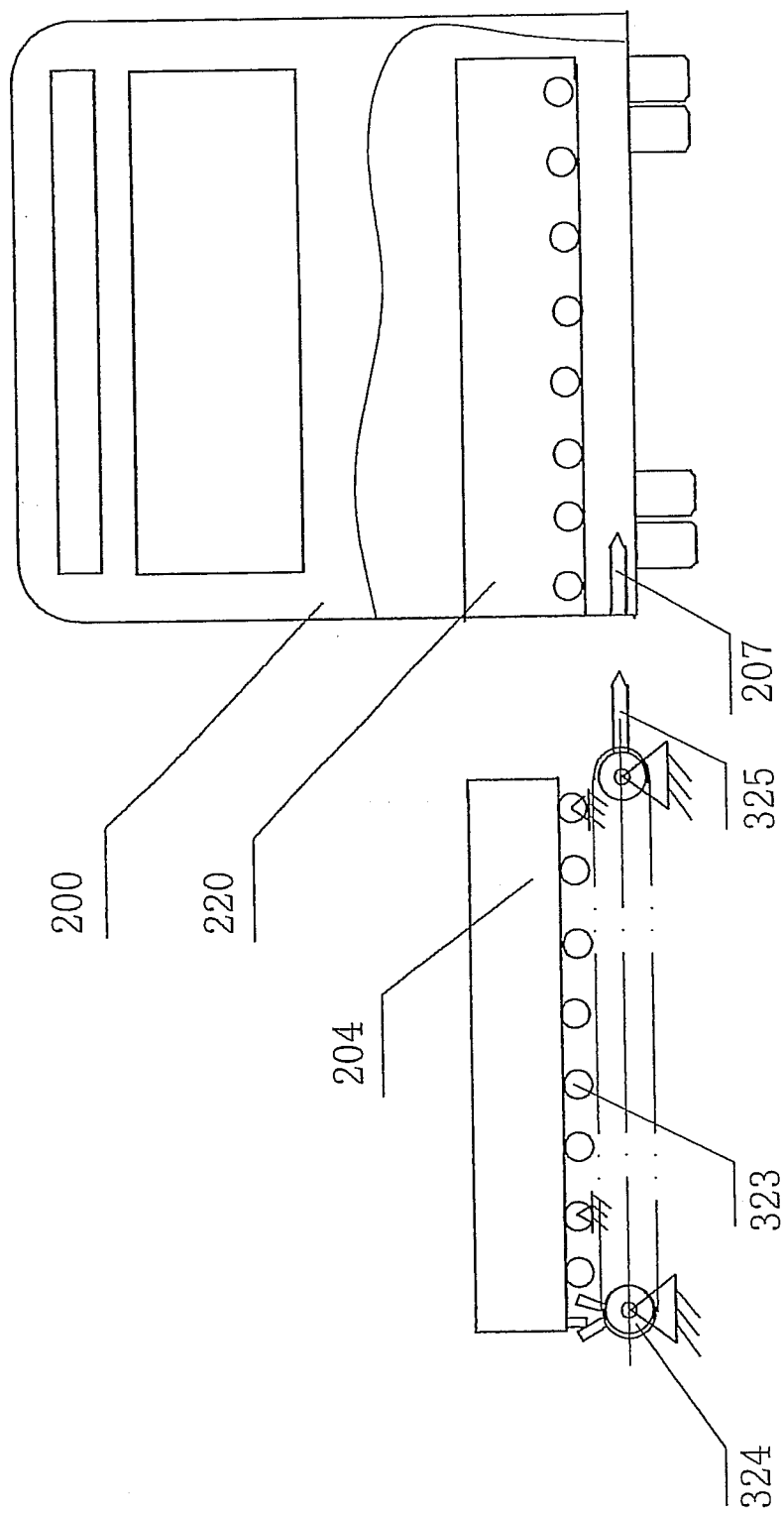


Fig 13

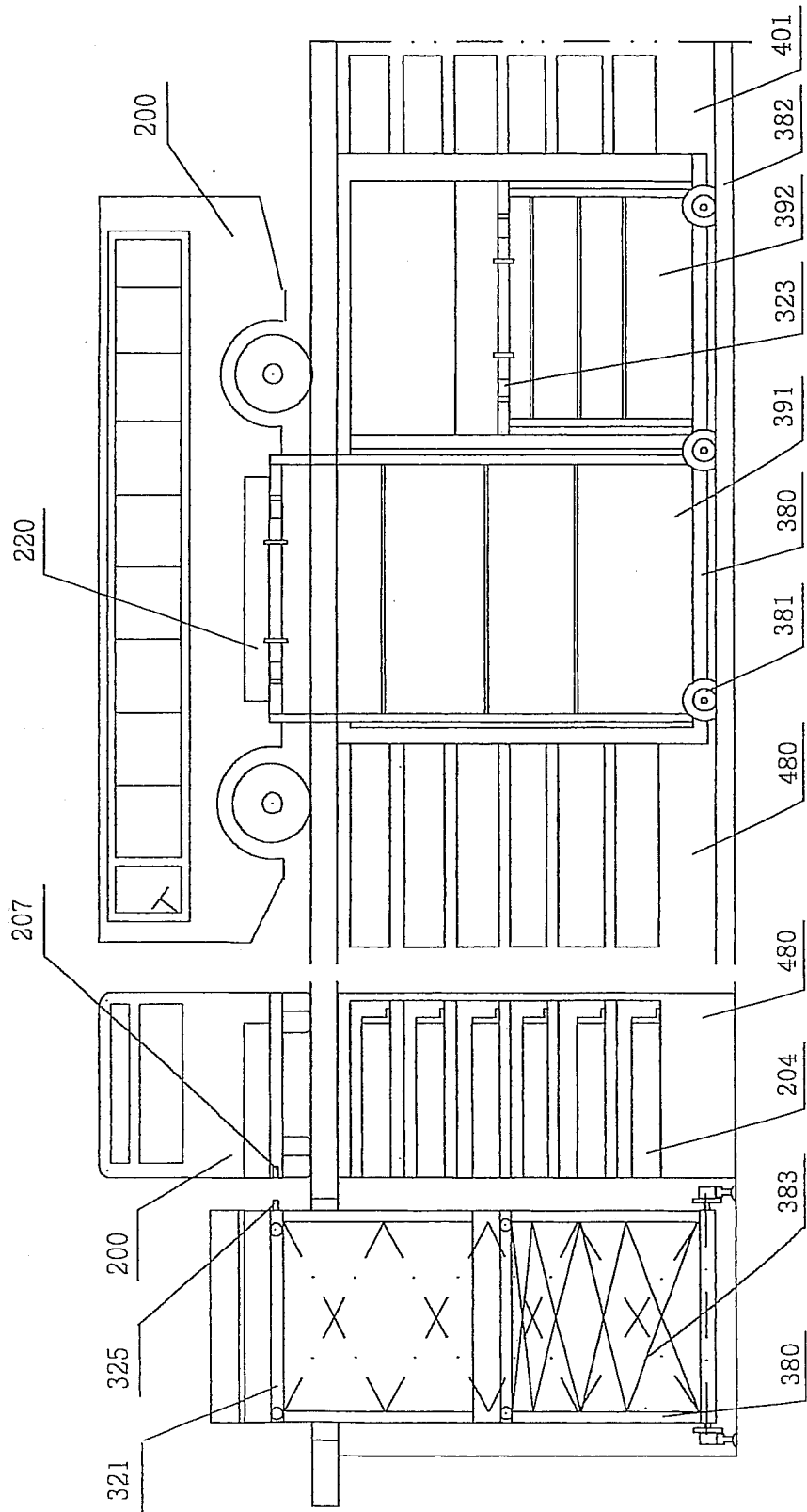
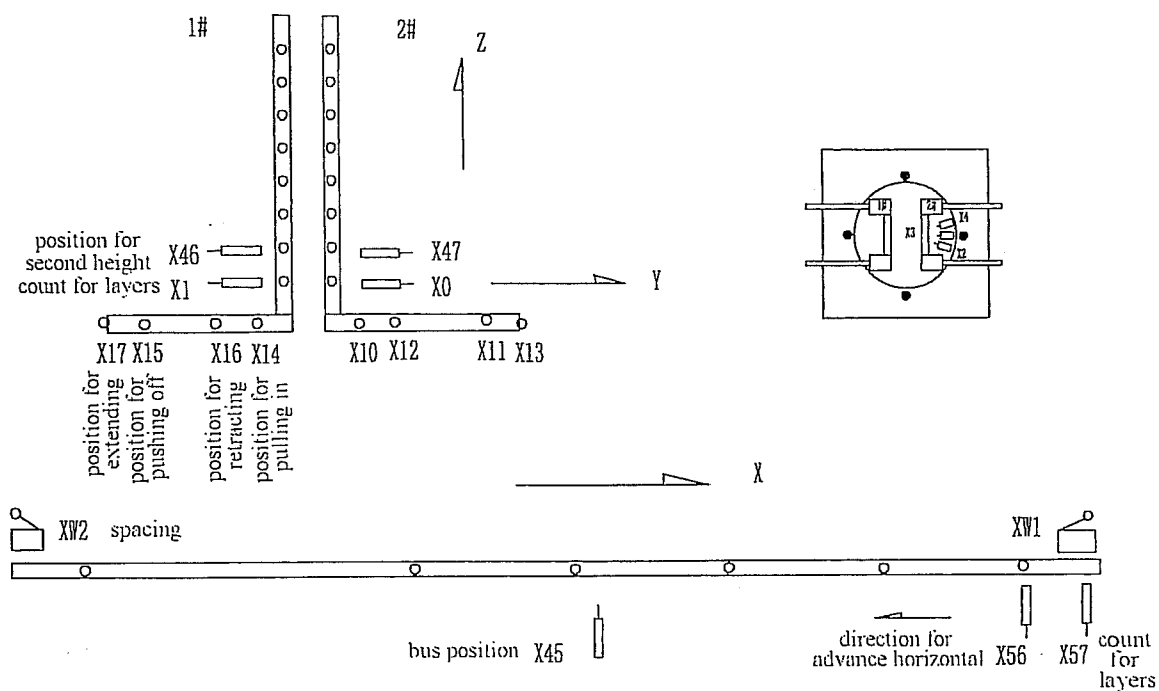


Fig 14B

Fig 14A



layout diagram of sensors on merchenical arms (47 points)

Fig 15

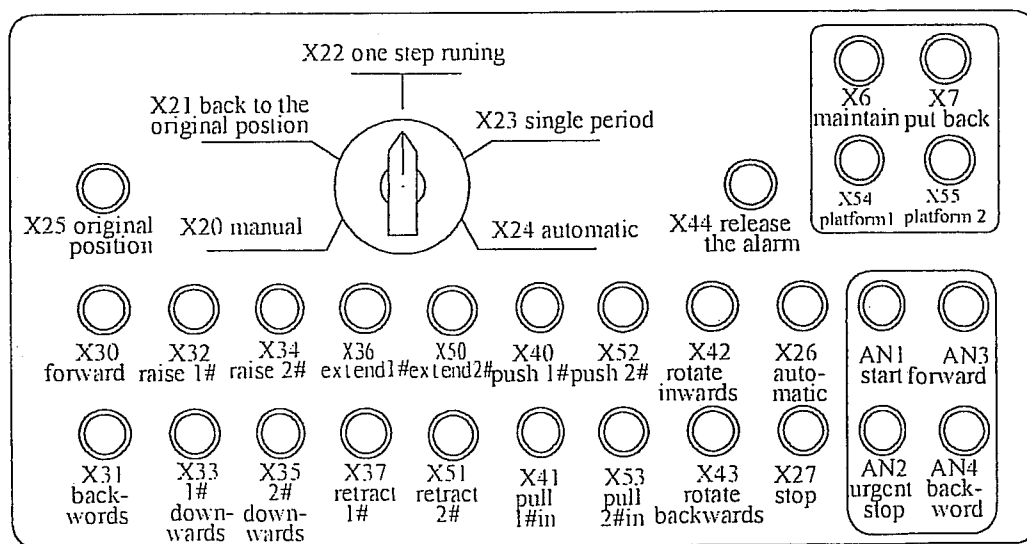


Fig 16

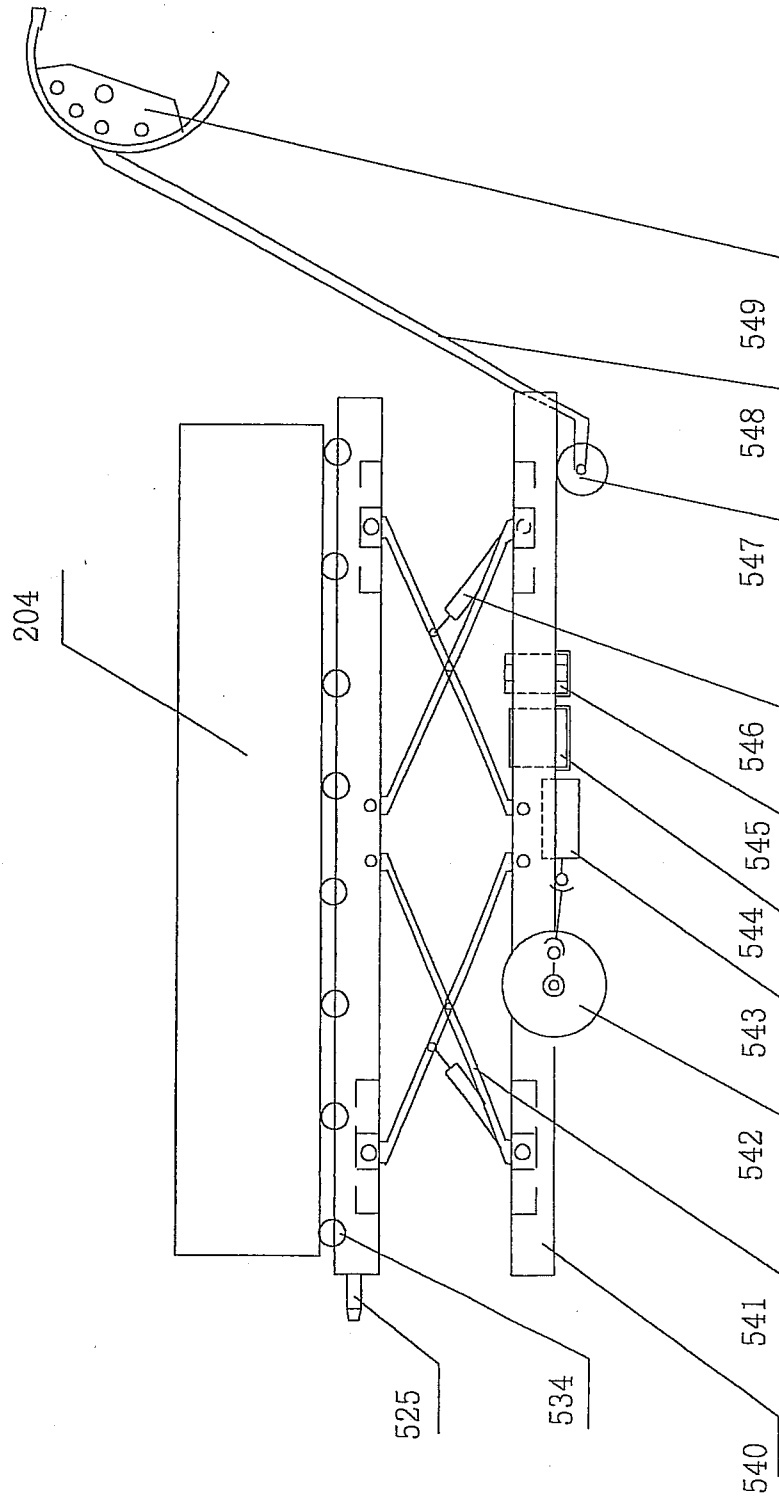


Fig 17

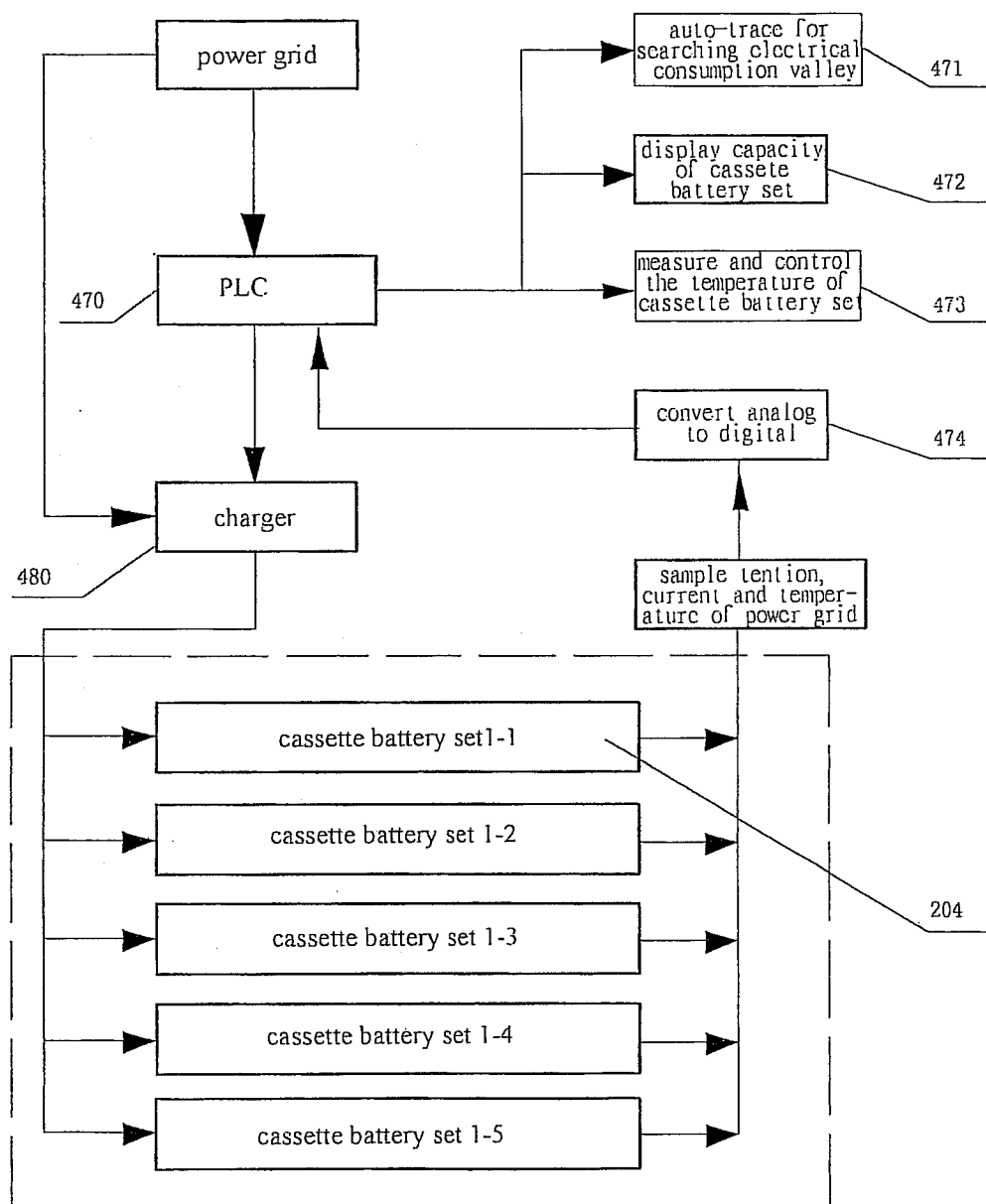


Fig. 18

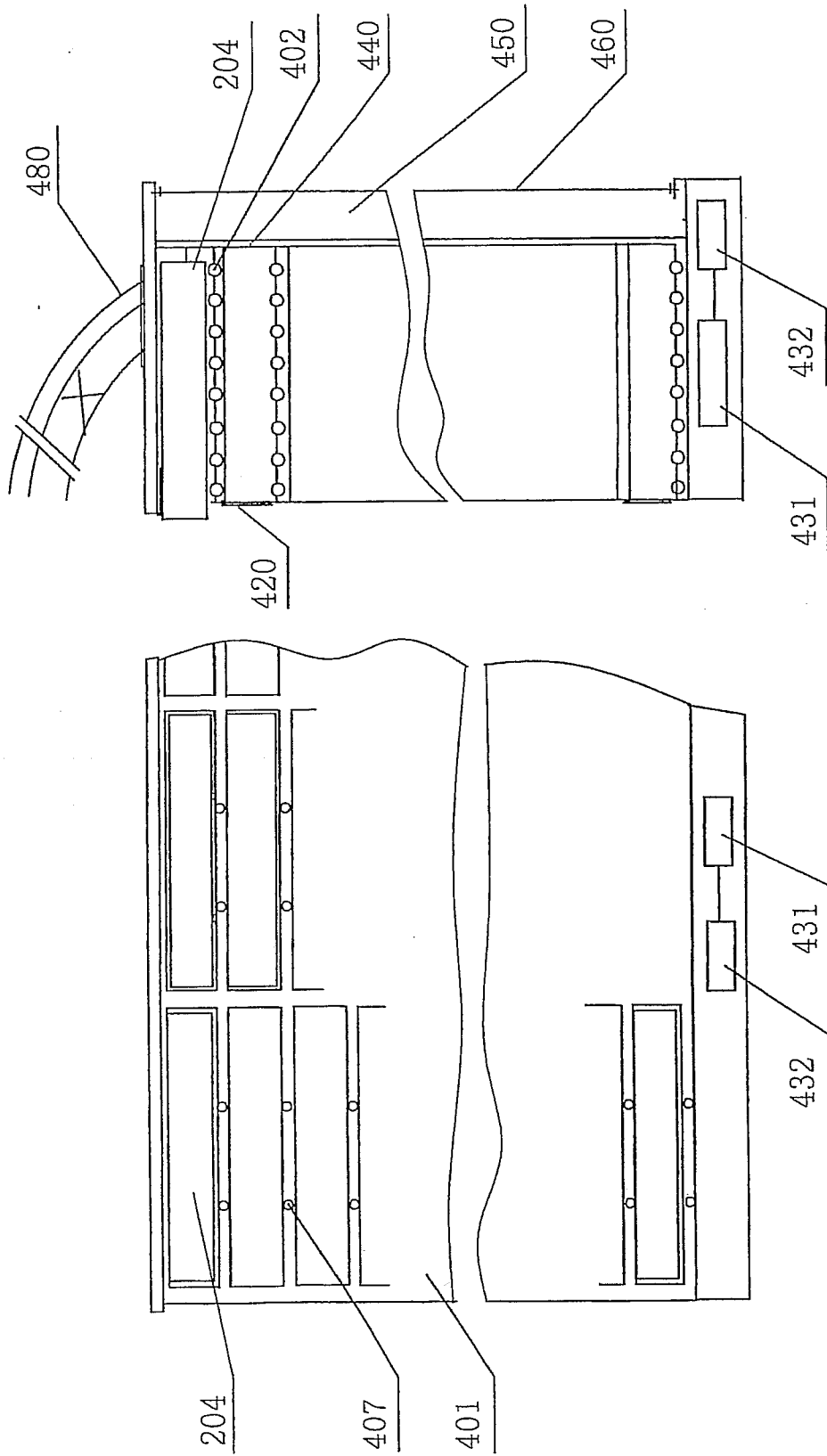


Fig 19B

Fig 19A

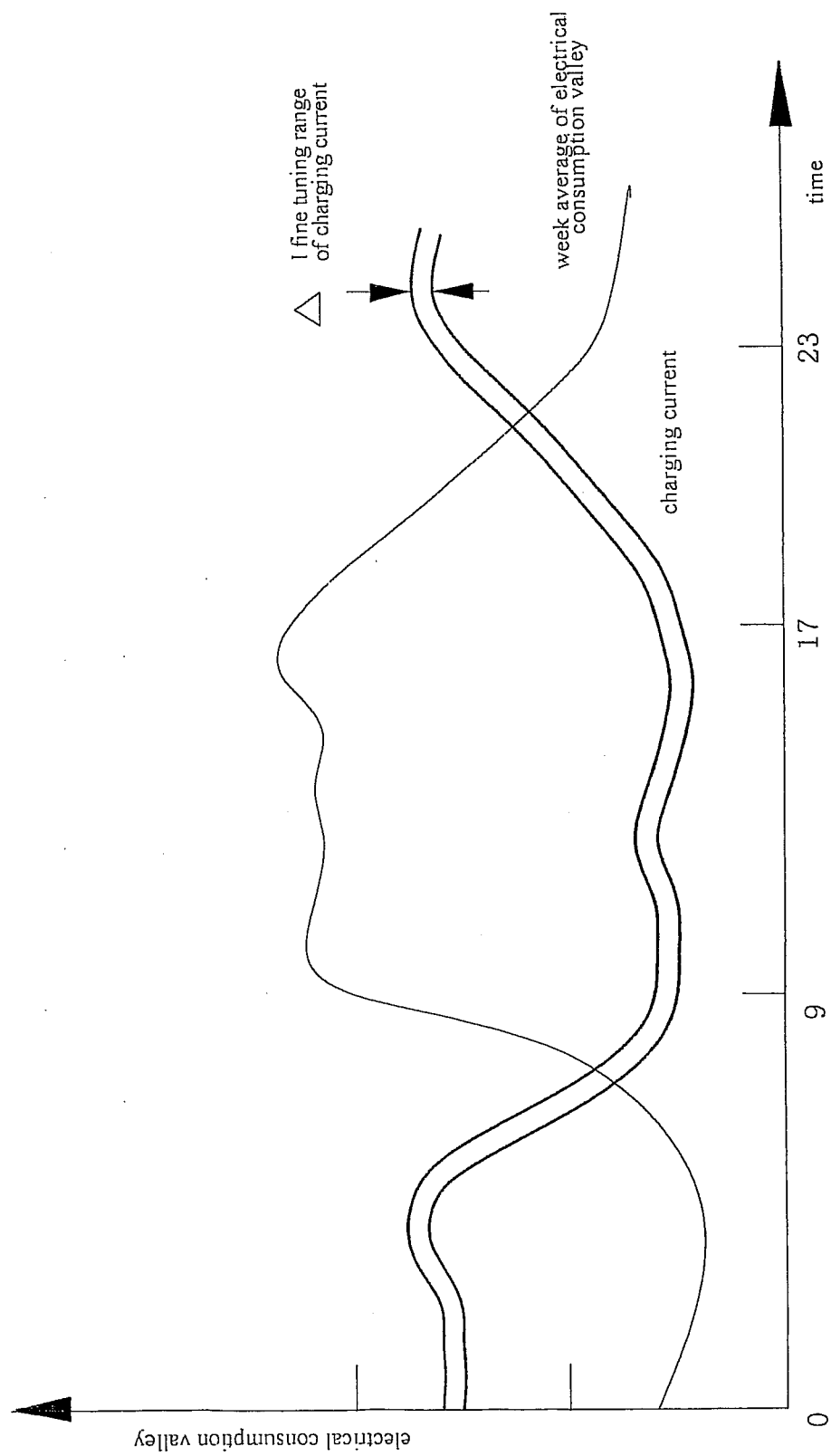


Fig 20

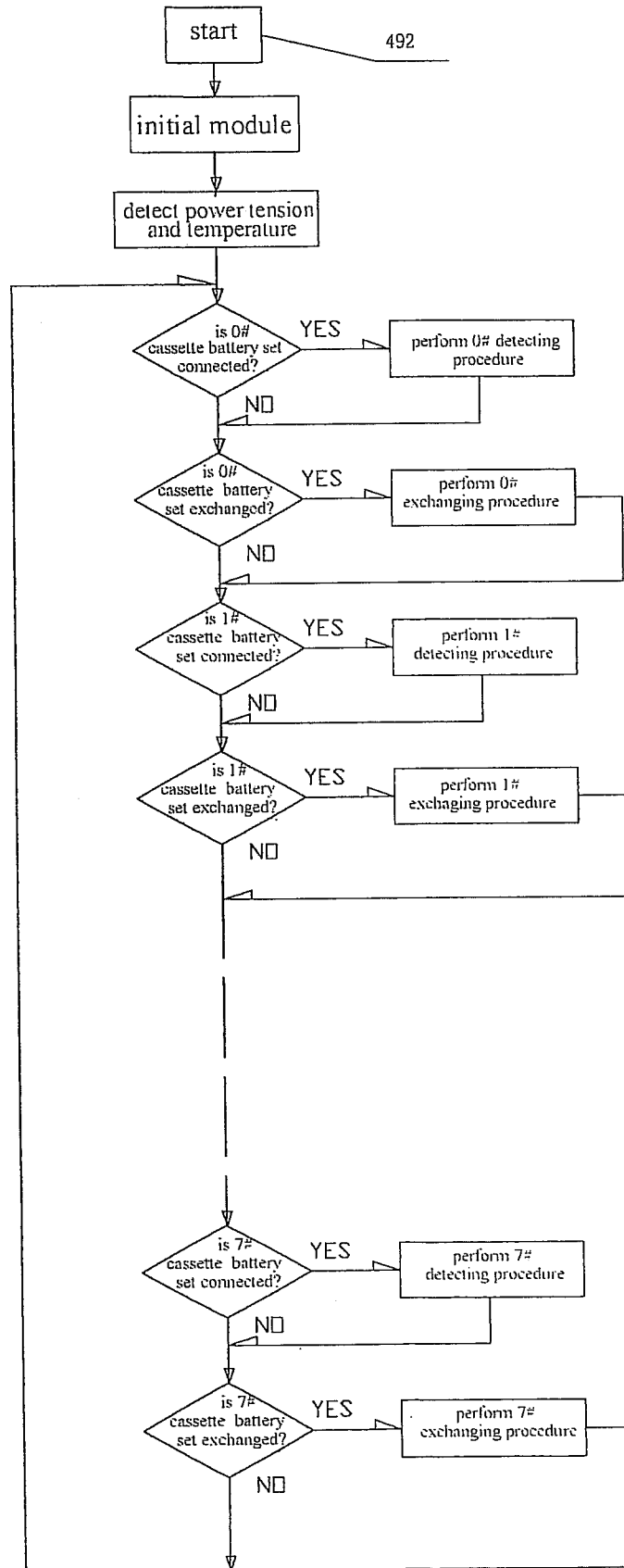


Fig. 21
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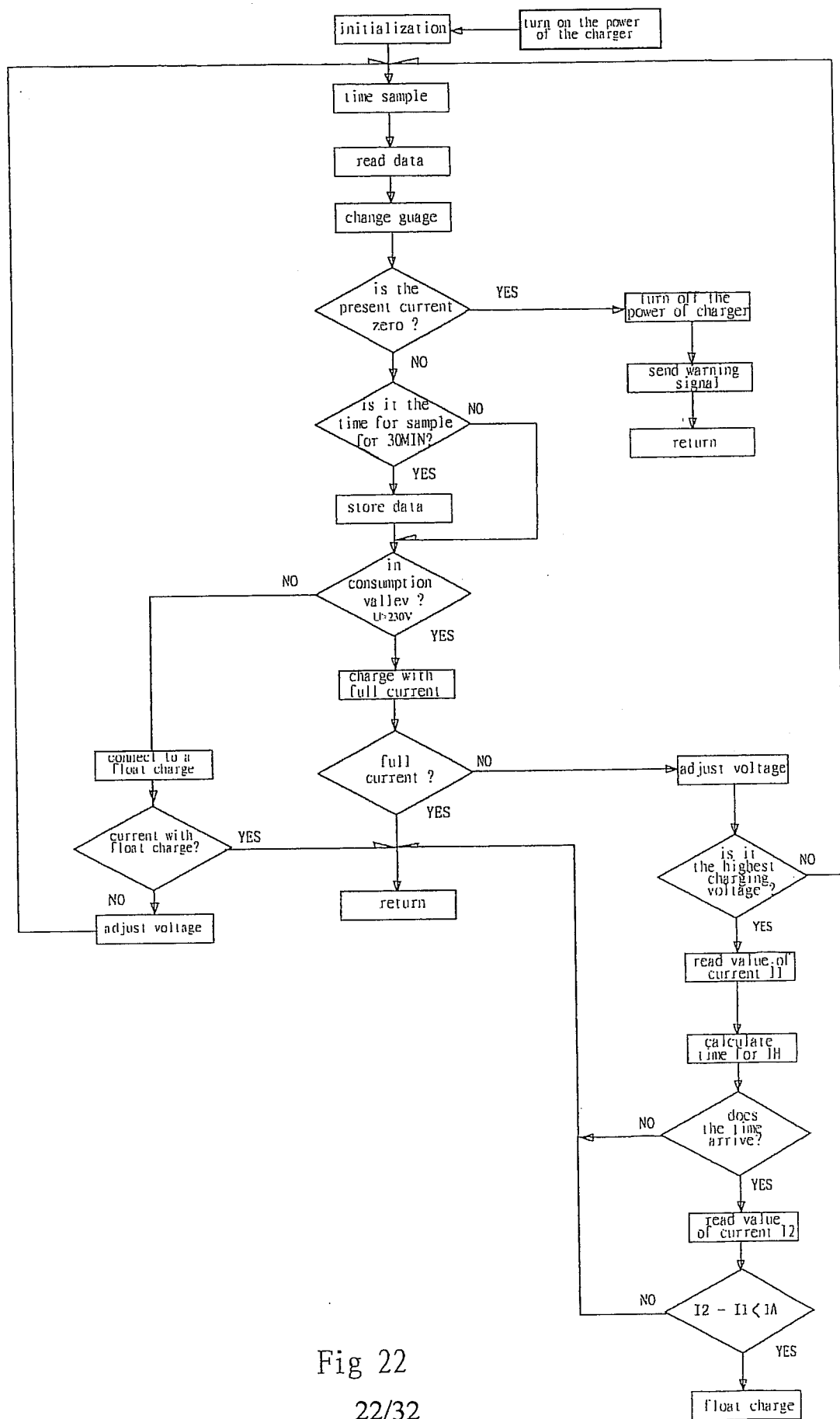


Fig 22
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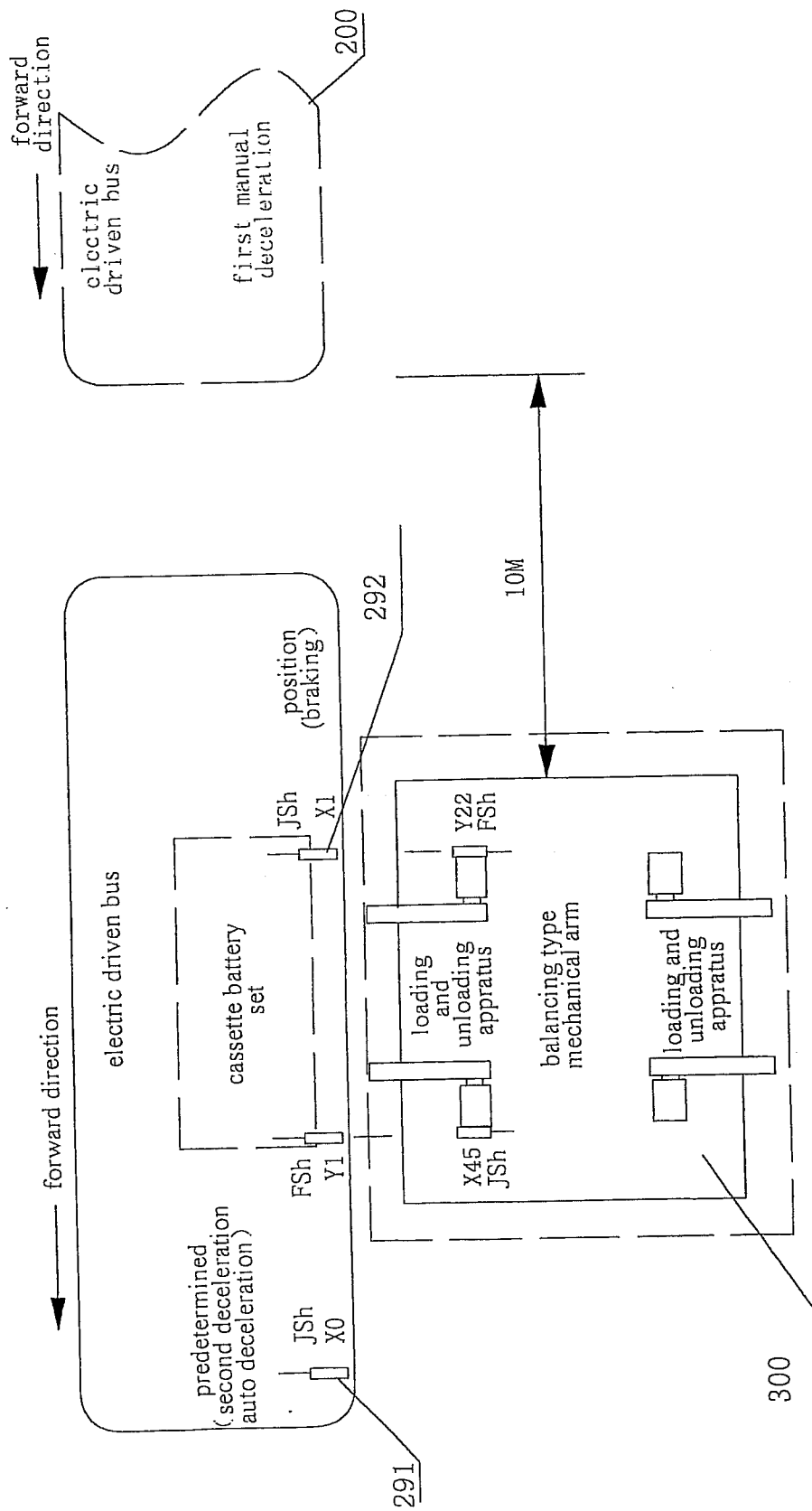


Fig 23

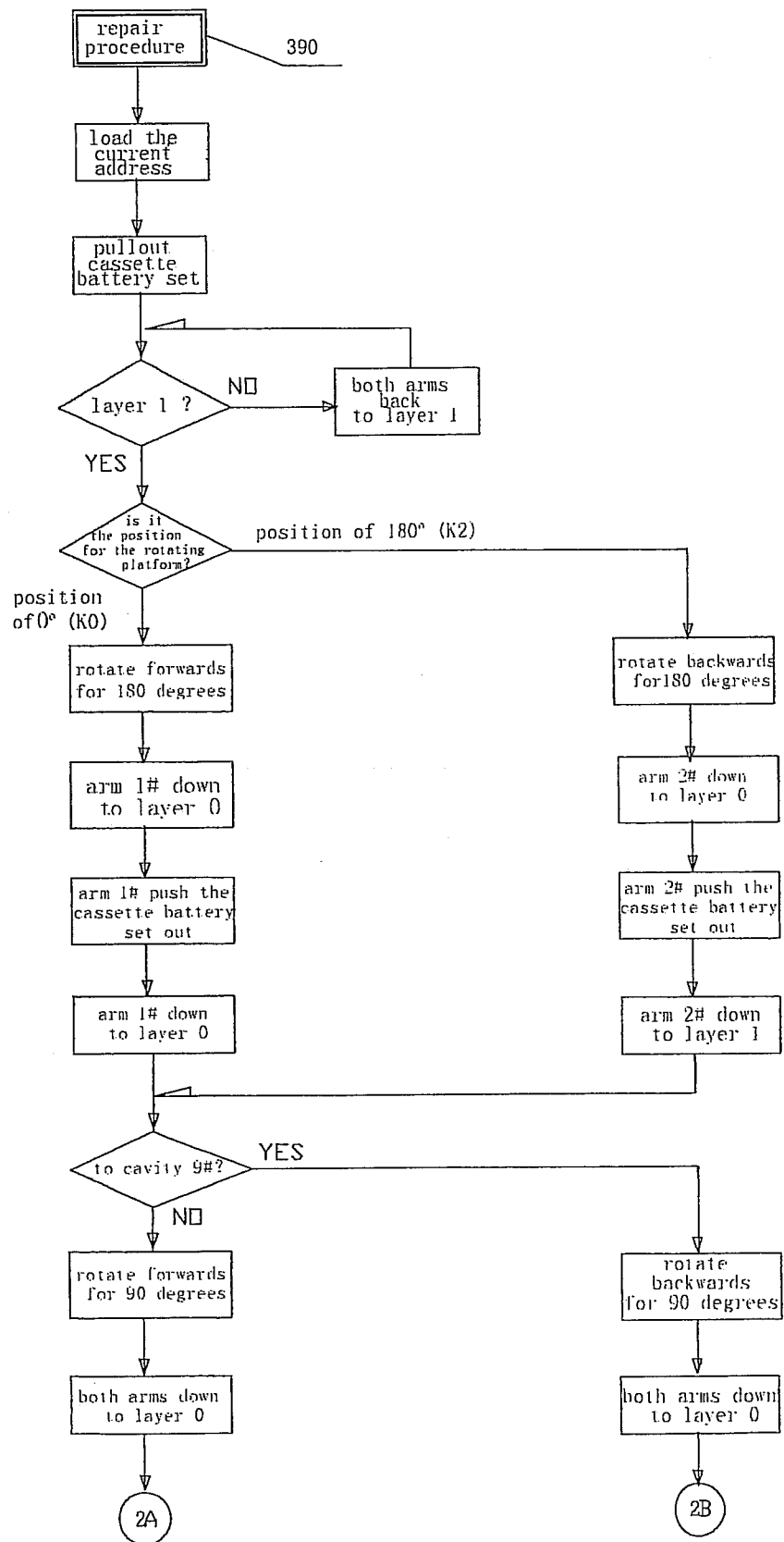


Fig 24A

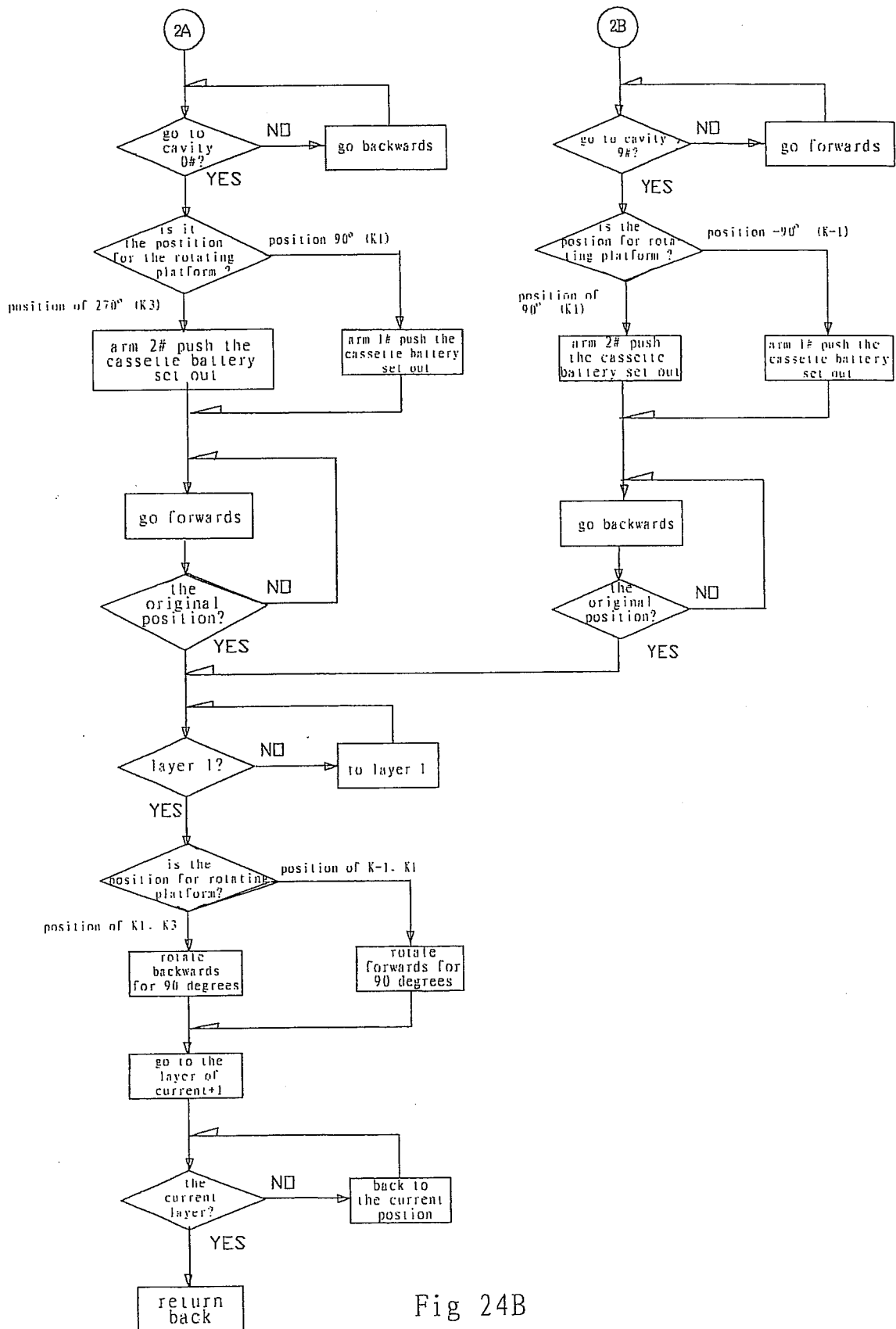


Fig 24B

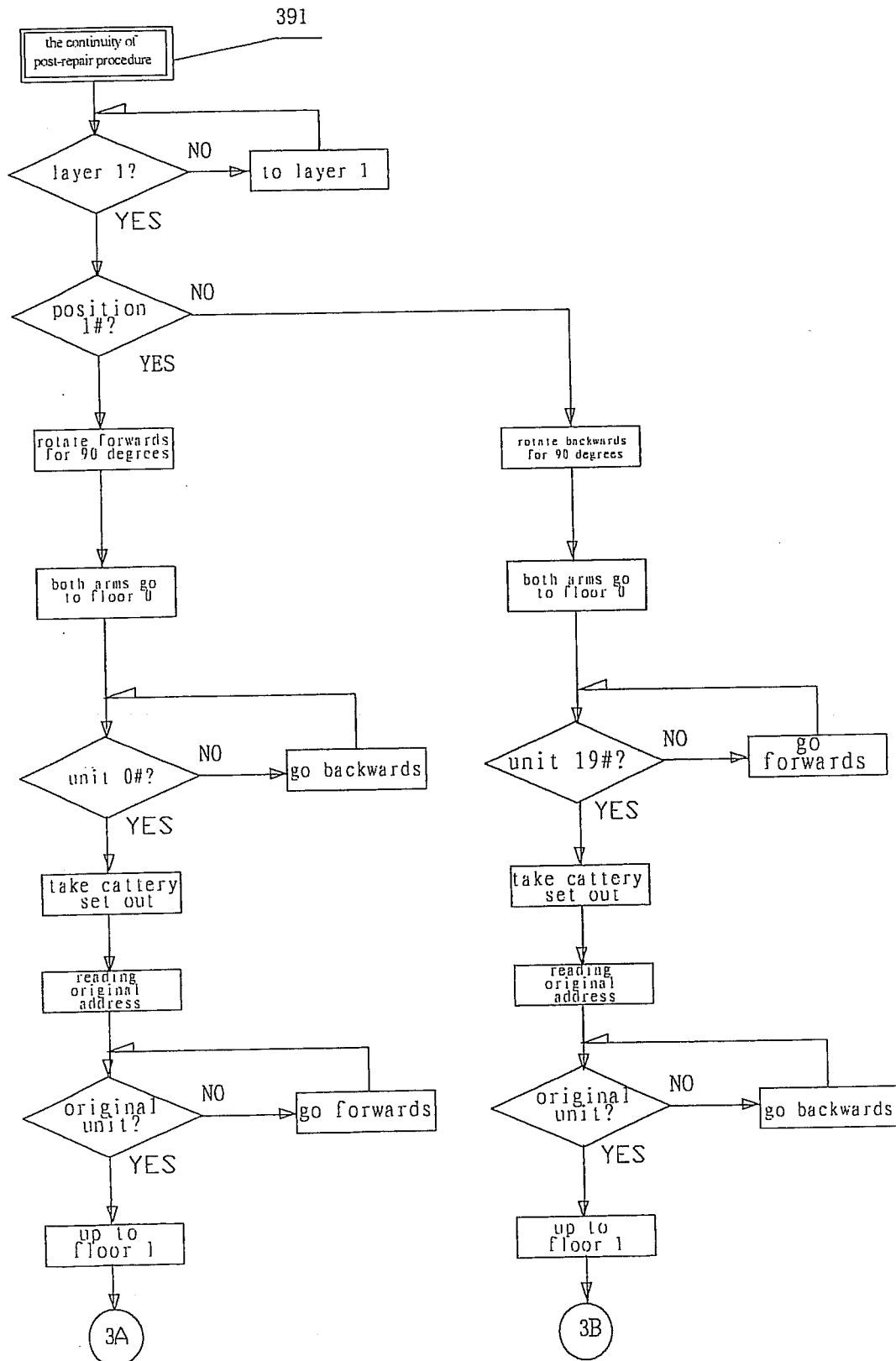


Fig 25A

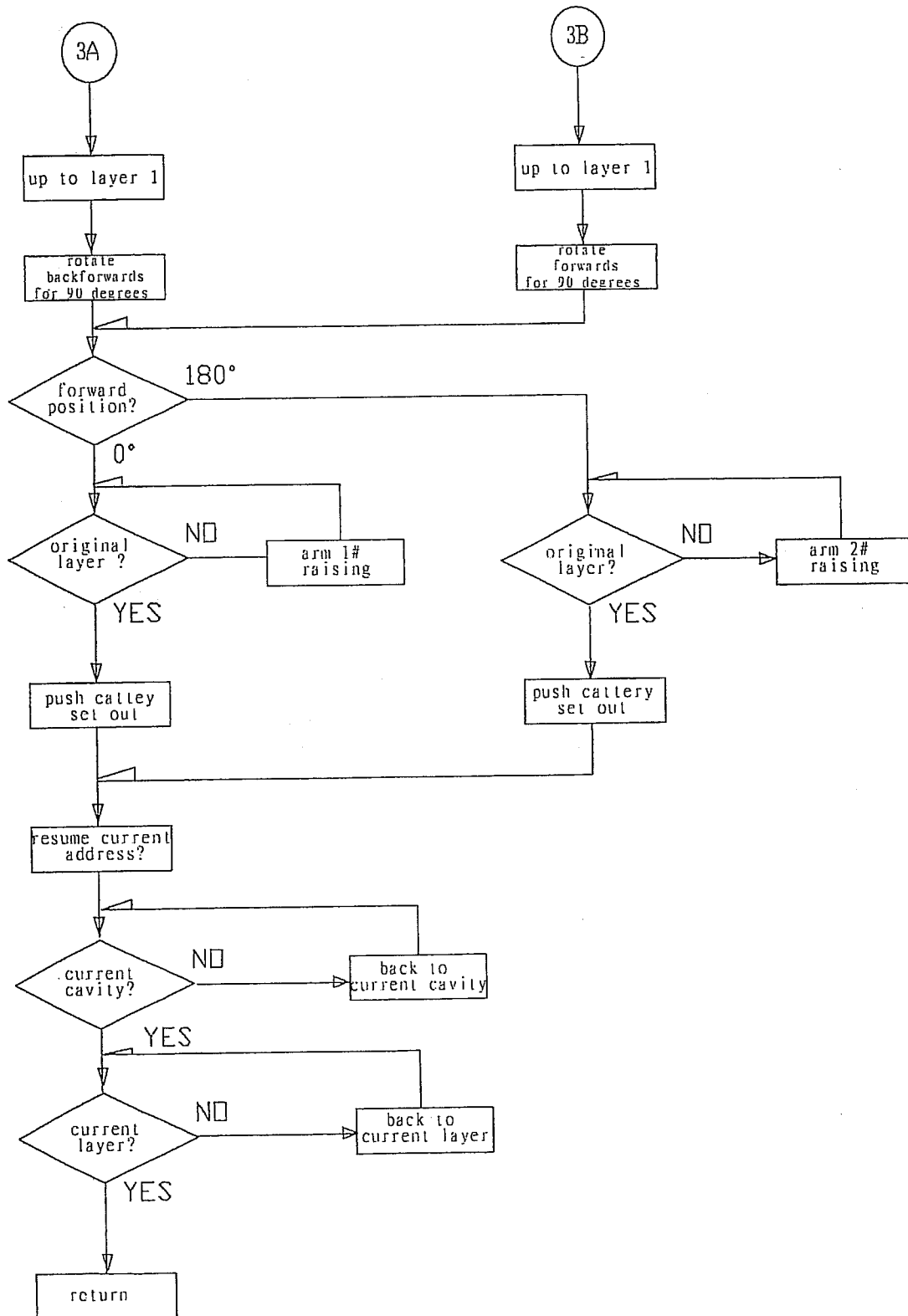


Fig 25B

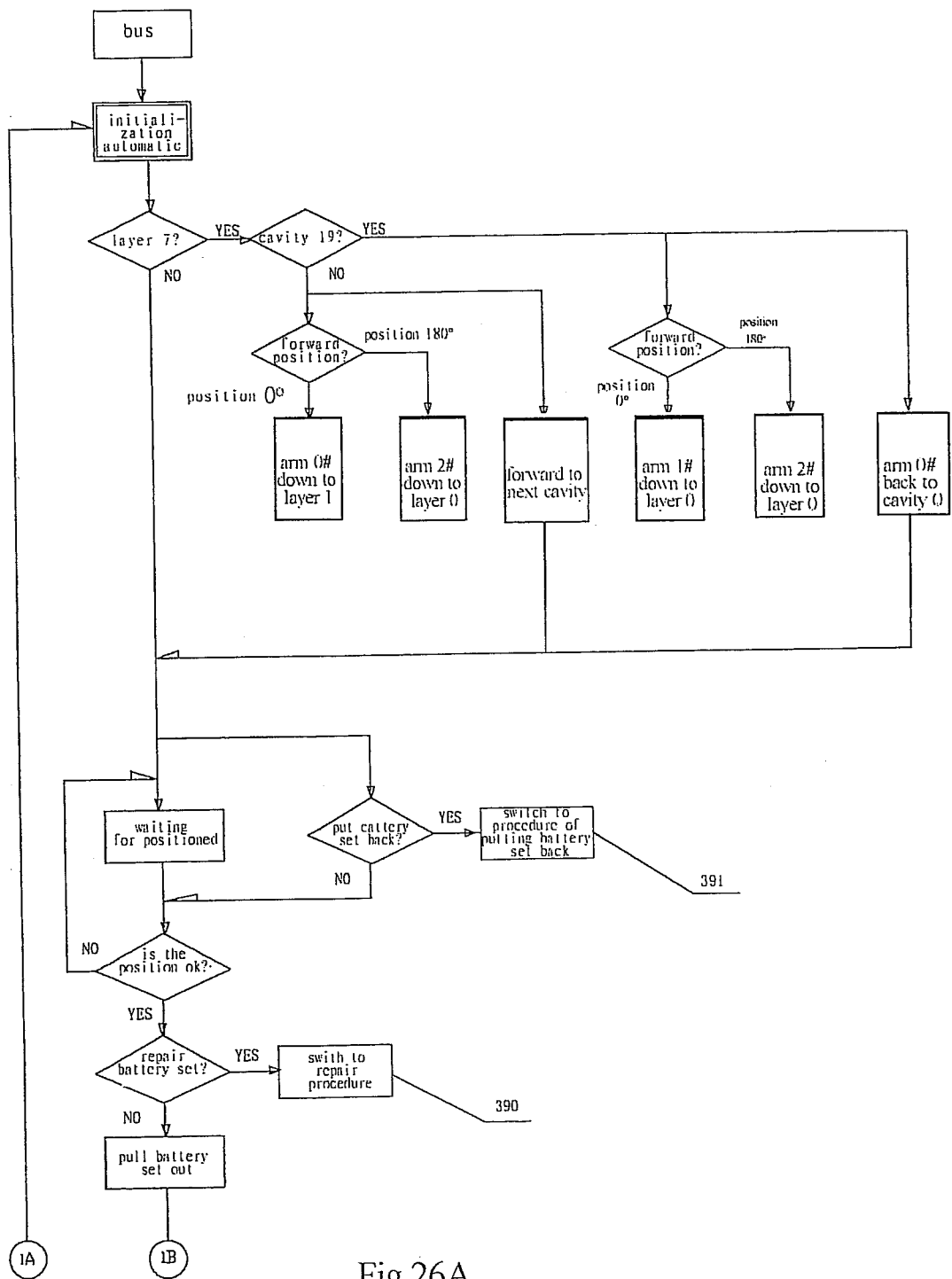


Fig 26A

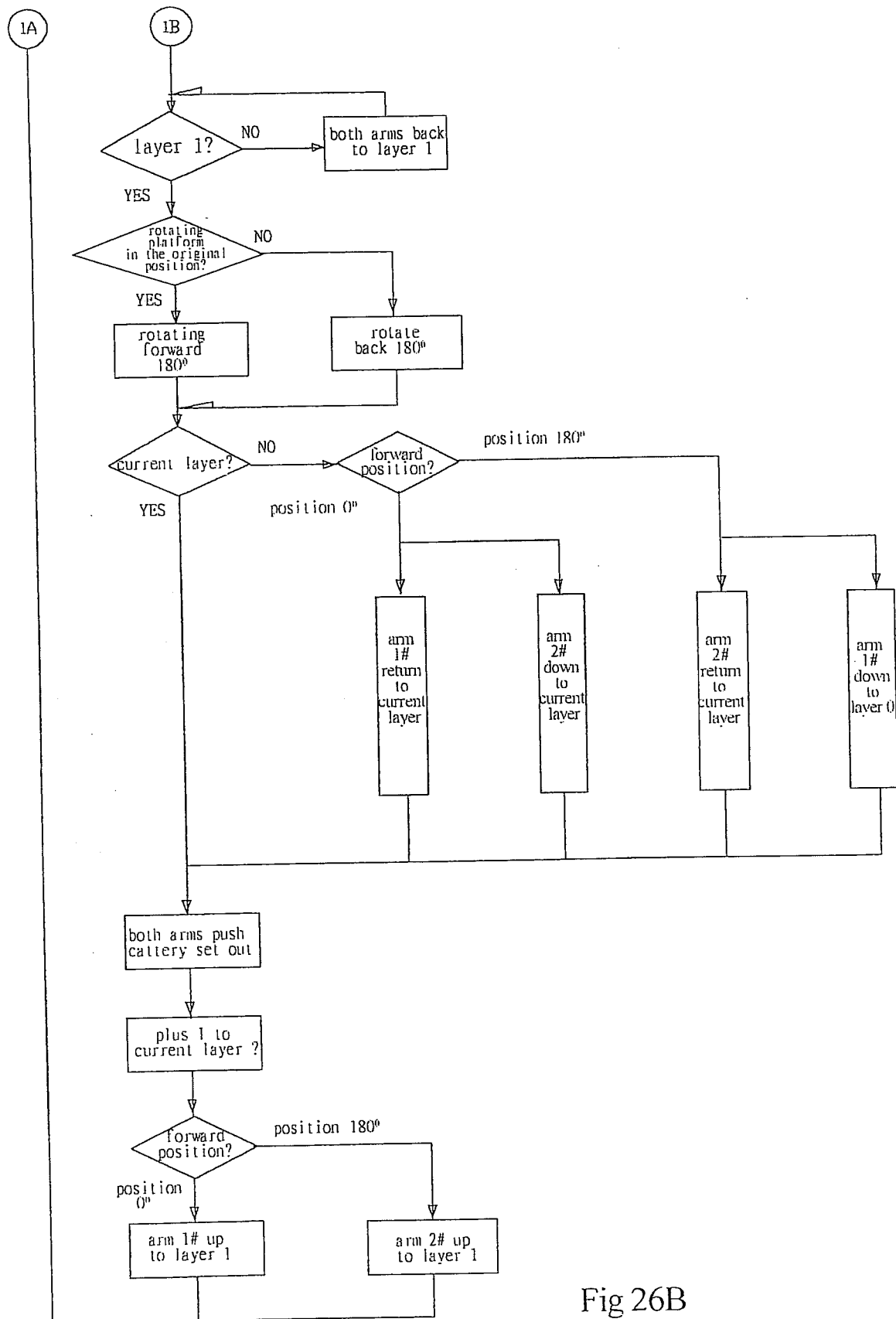


Fig 26B

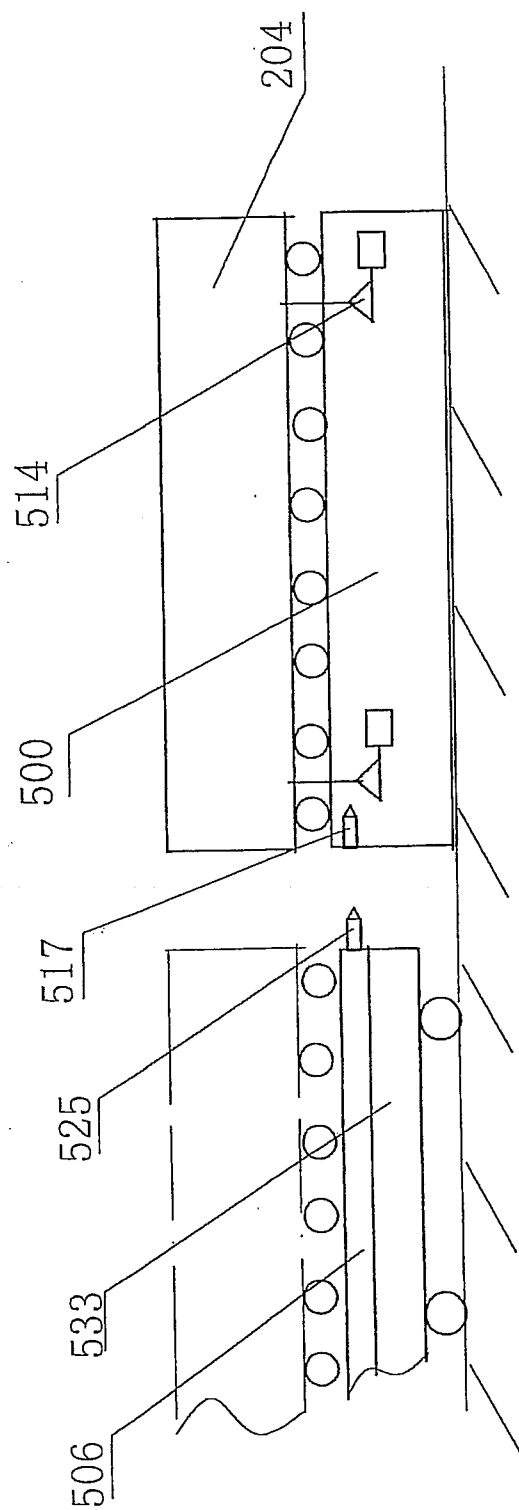


Fig 27

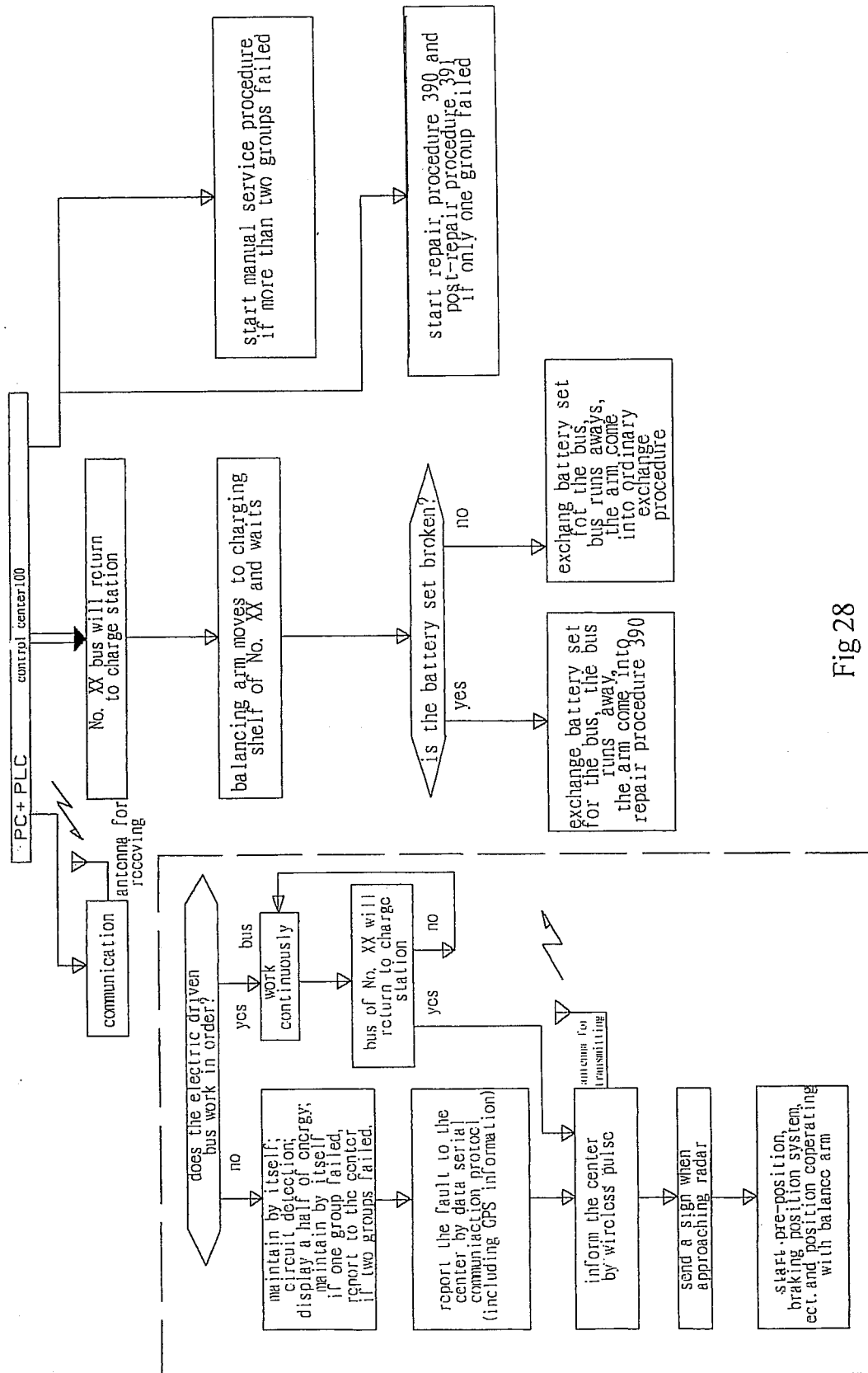


Fig 28

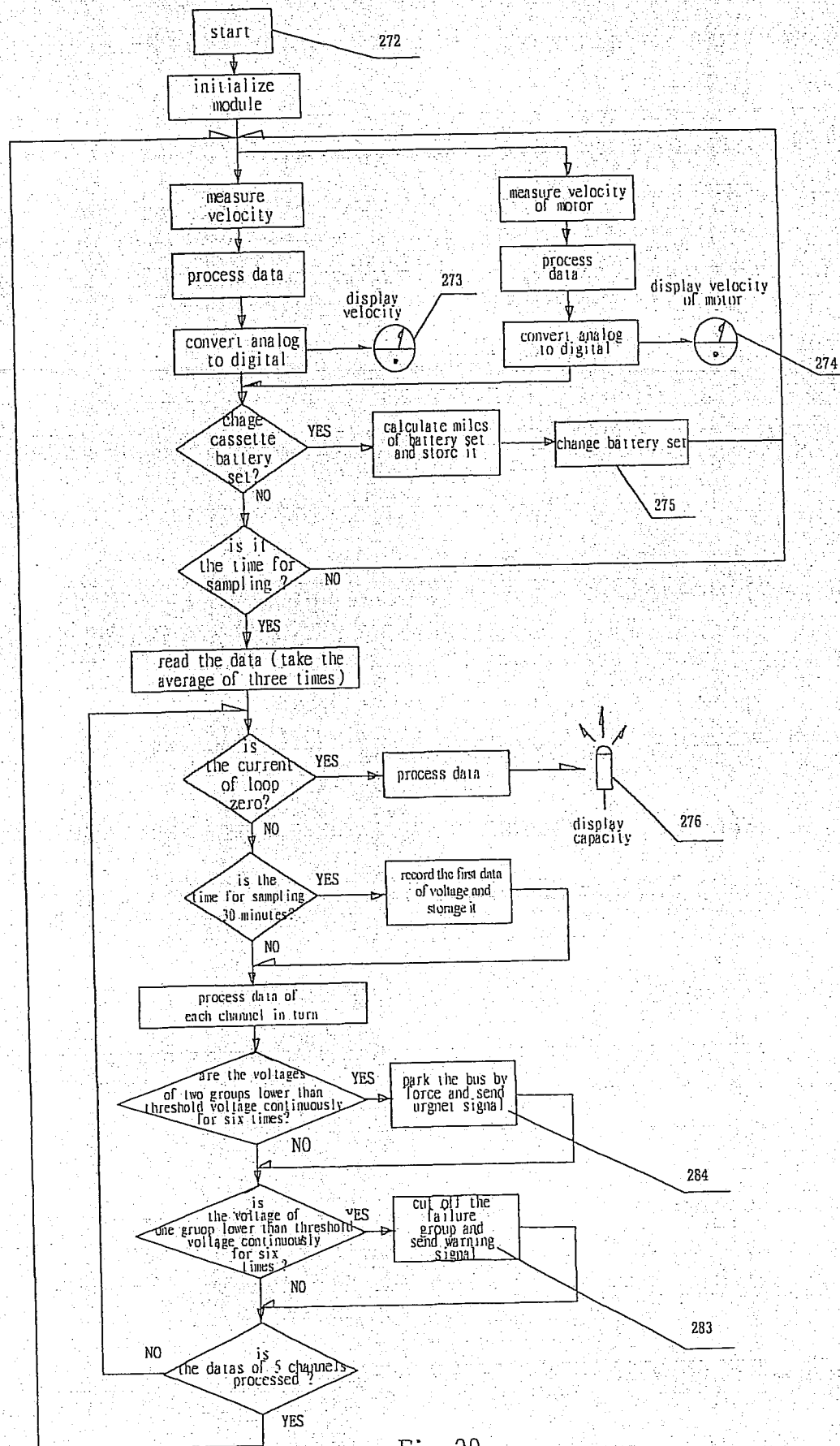


Fig 29