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A *Ferrers filling* is a filling of a Ferrers diagram with 0s and 1s in which every column contains at least one 1. A *permutation tableaux* is a Ferrers filling in which every square with a 1 above it in the same column and a 1 to its left in the same row also contains a 1. Steingrímsson and Williams have given a map from Ferrers fillings to permutations, which restricts to a bijection between permutation tableaux and permutations, but which is many to one on Ferrers fillings. We give a natural “flipping” operation on Ferrers fillings which leaves the corresponding permutation invariant. For each permutation  $\pi$ , we introduce the *tableaux graph*  $\Gamma(\pi)$ , whose vertices are the Ferrers fillings which map to  $\pi$ , and in which two fillings are connected by an edge whenever one can be obtained from the other via a single flip. We show that  $\Gamma(\pi)$  is connected for every  $\pi$ , we show how natural operations on permutations correspond with operations on graphs via  $\Gamma$ , and we give several conjectures concerning the structure of  $\Gamma(\pi)$  in general. (Received September 19, 2007)