mentioned above. In addition, I received helpful comments from Ted Petrie, Peter Landweber, Arunas Liulevicius and my colleagues R. Schultz and Jim Becker.

By fibration, we shall always mean Hurewitz fibration, that is the fibration satisfies the the homotopy covering property for all spaces. By fibre bundle we shall mean a fibration such that inverse images of small enough neighborhoods, U, of X are homeomorphic to a product of U and the fibre.

§ 2. Lifting up to Homotopy

We shall introduce some standard notation. We shall always let G be a topological group. We shall let E_G be a contractible group which contains G as a closed subgroup. We know such an E_G exists by appealing to Theorem 8.1 of Peter May's monograph [15], or to the first paragraph on page 385 of Graeme Segal [16]. Now the quotient space E_G/G is the classifying space B_G. If G acts on X then we let $X_G = E_G \times_G X$ and we obtain the fibre bundle

$$X \xrightarrow{i} X_G \xrightarrow{p} B_G.$$

Let $E \xrightarrow{p} X$ be a fibration and let G act on X where X is CW complex.