This is the hardest part of the paper. 
\[ R(\mathbb{Q}) \to H_{\mathbb{Q}} \]

We want this to be an equivalence. Therefore it is part of Milnor's construction of \( H_{\mathbb{Q}} \).

Another approach: show it is an iso in \( K_{4p} \), \( \mathbb{S}(-) \)

This works in motivic homotopy theory (\( H_{nu}-\text{Kriz} \))

We need to know \( H_{nu} H_{\mathbb{Q}} \). We did
(Independently of our proof), it could lead to another proof. There could be an equivariant algebra.

Hills talk reduced us to showing

$$\Omega^G \mathcal{R} \mathcal{O} \rightarrow \Omega^G H\mathbb{Z}$$

$$\pi_n = \begin{cases} 2/2 & \text{even} \\ 0 & \text{odd} \end{cases}$$

We do not have a direct proof that $\mathcal{R} \mathcal{O}$ is a ring spectrum.
\[ R(\alpha) = \text{MU}^{(G)} \cap S \]

where \( A = S \{ \bar{G} \cdot \bar{r}_1, \ldots \} \)

\[ = \text{MU}^{(G)} \cap_{\text{MU}^{(G)}} \frac{\text{MU}^{(G)}}{G \cdot \bar{r}_2} \ldots \]

The generator of \( \prod_{2^i} \) of \( R(\alpha) \) occurred when modding out by \( G \cdot \bar{r}_{2^i-1} \).

These are occurring in independent factors in \( 1 \), so it suffices to show \( h^2 \) is in \( \text{imag} \) for all \( i \).
Special case: Show $b \in \pi_2 \mapsto G, H \Delta \phi$

in image. The main diagram:

$M_1 = \text{MU}((G_3))/\langle G_1 \cdot \pi_1 \rangle$. Note $EP = E\Omega_2$ where $G_2 = G/G_1$

$G_1 = C_{2n} \quad G_1 = C_{2n-1}$

$G_1 \mapsto \text{isotropy separation}$

Odd $\pi_2 \mapsto \text{odd } \pi_2$
Consider $\tilde{N}_{\mu_1} \in \Pi_0 \text{M}U^{(G)}$.

CLAIM: Image of $\nu_1 \in \Pi_0 \text{EP}^r \text{M}U^{(G)}$ in $\Pi_0 (\text{EP}^r \text{H}Z) \simeq \mathbb{Z}$ is nonzero. The theorem follows by a diagram chase.

An alternative approach.

Consider the case $G_1 = G_2$, so $\text{EP}^r \text{M}U_{\mathbb{R}}$ is a union of real manifolds and $\pi_0 \text{EP}^r \text{M}U_{\mathbb{R}}$.

This gives map $M^d / G_2 \to B G_2$, $\langle [M^d / G_2], \alpha \rangle \to \mathbb{Z}$.
$y \leftrightarrow x^2 + y^2 - z^2$ 

$\frac{1}{2} \leftrightarrow x_1^2 + \cdots + x_7^2 = -2$  

$S^2$ with antipodal action 

$S^2/G_2 = \mathbb{RP}^2$ 

Quadratic = 

Transversal of 2-planes

How to do it for general $G$.

Induction on weights means left column of diagram behaves nicely. 

$MU^{(C_2)}$ 

$\Pi_0 MU^{(C_2)} = \mathbb{Z}$

$\Pi_2 = 2 \cdot \mathbb{Z} \cdot \mathbb{Z}$

$\Pi_4 = 2 \cdot \mathbb{Z} \cdot \mathbb{Z}$

$\Pi_8 \cong \mathbb{Z}^4 \bigoplus \mathbb{Z}^4$
Suppose we can ignore indented cells so we have (in low dims)

Crudeley \[ M^G \rightarrow H \rightarrow \Sigma S^G \rightarrow H \vspace{1em} \]

So there is a filtration \vspace{1em}

\[ \pi_+ \rightarrow \Sigma S^G \rightarrow \pi_+ \rightarrow M^G \vspace{1em} \]

Milnor operation
CLAIM: The following seq is exact

$$\pi^G_{\mathfrak p} \mathcal E P \times S^2 \mathcal P^{1+2} \mathcal H^2 \to \pi^G_{\mathfrak p} \mathcal E P \times \text{MU} \to 0$$

We are ignoring induced cells in lower dim.,

e.g. $$\pi^G_{\mathfrak p} \mathcal E P \times C_8 \times C_2 \times S^2 \mathcal P^{1+2} \mathcal H^2 = \pi^G_{\mathfrak p} C_8 \times S^2 \mathcal P^{1+2} \mathcal H^2 = 0$$

since $$S^p \geq 16$$.

The claim follows.
To show $\gamma$ has $\neq 0$ image, we need to show it is a proper subset such that the image of the previous $\gamma_p$ does not have.

$\Pi_0^G \mathbb{E}_{24} \cap S^8 \cap H^2 \leq \Pi_0^G \mathbb{E}_{24} \cap \Pi_0^4 H^2$

Conclusion: $\Pi_0^G \mathbb{E}_{24} \cap S^8 \cap H^2$ is in image of transfer from $\Pi_0^H$.

Need to show $\chi$ is not a transfer.

Suffices to show $\mathbb{N}^*$ is not in image of transfer.
In $\bar{\Pi}_g \text{MV}(G)$ we have $N_1$.

The image of the transfer consists ofelts of the form $X \cdot x$ for $x \in G$.

In $\bar{\Pi}_g \text{MV}(G)$, $g$ generates a summand on which $g$ acts via sign.

It follows that $g$ has nontrivial image.