Cody Problem 13. Remove all the consonants

Remove all the consonants in the given phrase.

Example:

```
 % Input   s1 = 'Jack and Jill went up the hill';
 % Output s2 is 'a a i e u e i';

 % Input   s1 = 'I don''t want to work. I just want to bang on the drum all
day.';
 % Output s2 = 'I o'' a o o. I u a o a o e u a a.';
```

Scratch Pad

```
s1 = 'Jack and Jill went up the hill';
s2 = 'a a i e u e i';
refcn(s1)
```

```
ans =
"a a i e u e i"
```

```
assert(isequal(s2,refcn(s1)))
s1 = 'I don''t want to work. I just want to bang on the drum all day.';

refcn(s1)
```

```
ans =
"I o' a o o. I u a o a o e u a a."
```

```
s2 = 'I o'' a o o. I u a o a o e u a a.';
assert(isequal(s2,refcn(s1)))
```

Solution

```matlab
function s2 = refcn(s1)
    % Define a list of consonants
    Consonants = 'BCDFGHJKLMNPQRSTVWXYZbcdfghjklmnpqrstvwxyz';

    % Convert the input string to a character array
    chars = char(s1);

    % Create a logical array where true represents a non-consonant character
    NotConsonant = ~ismember(chars, Consonants);

    % Remove consonants
    resultString = chars(NotConsonant);

    % Replace apostrophes correctly
    resultString = strrep(resultString, '''', '''');
```

```matlab
    % Convert the result back to a string
    s2 = string(resultString);
end
```