The fixed code:

```
#include <cstdio>
int number_instantiated = 0;
class Node {
public:
  Node(const int &value, Node *next = nullptr)
    : value_(value), next_(next) {
    printf("%s%d%s\n", "Creating Node, ",
        ++number_instantiated,
        " are in existence right now");
  }
  ~Node() {
    printf("%s%d%s\n", "Destroying Node, ",
        --number_instantiated,
        " are in existence right now");
    next_ = nullptr;
  }
  Node *next() const { return next_; }
  void next(Node *new_next) { next_ = new_next; }
  const int &value() const { return value_; }
  void value(const int &value) { value_ = value; }
private:
  int value_;
```

```
Node *next_;
};
class LinkedList {
public:
  LinkedList() : head_(nullptr) {}
  ~LinkedList() { delete_nodes(); }
  int insert(const int &new_item) {
    head_ = new Node(new_item, head_);
    return 0;
  }
  int remove(const int &item_to_remove) {
    Node *marker = head_;
    Node *temp = nullptr;
    bool item_removed = false;
    while (marker != nullptr) {
      if (marker->value() == item_to_remove) {
        if (temp == nullptr) {
          head_ = marker->next();
        } else {
          temp->next(marker->next());
        }
        Node *node_to_delete = marker;
         marker = marker->next();
         delete node_to_delete;
        item_removed = true;
         break;
```

```
}
      temp = marker;
      marker = marker->next();
    }
    return item_removed ? 0 : -1;
  }
  void print() {
    Node *marker = head_;
    while (marker != nullptr) {
      printf("%d\n", marker->value());
      marker = marker->next();
    }
  }
private:
  void delete_nodes() {
    Node *marker = head_;
    while (marker != nullptr) {
      Node *temp = marker->next();
      delete marker;
      marker = temp;
    }
  }
  Node *head_;
};
int main(int argc, char **argv) {
```

```
LinkedList list;

list.insert(1);

list.insert(2);

list.insert(3);

list.insert(4);

printf("%s\n", "The fully created list is:");

list.print();

printf("\n%s\n", "Now removing elements:");

list.remove(2);

list.print();

return 0;

}
```

How it fixed: In the remove function, the line delete temp; should be delete marker; because we want to delete the node that has the value equal to item_to_remove. Also, we should break the loop after removing a node.