The changeset display is slow when changeset_issues has very many records

In issue page, the changeset display is slow when changeset_issues has very many records.

The following query is executed.

```
SELECT `changesets`.*
FROM `changesets`
INNER JOIN `repositories` ON `repositories`.id = `changesets`.repository_id
INNER JOIN `projects` ON `projects`.id = `repositories`.project_id
INNER JOIN `changesets_issues` ON `changesets`.id = `changesets_issues`.changeset_id
WHERE `changesets_issues`.issue_id = 1
```

There is no INDEX in issue_id of changesets_issues table.

- `db/schema.rb`
  ```ruby`
  create_table "changesets_issues", id: false, force: :cascade do |t|
  t.integer "changeset_id", null: false
  t.integer "issue_id", null: false
  end

  add_index "changesets_issues", ["changeset_id", "issue_id"], name: "changesets_issues_ids", unique: true, using: :btree
  ```

As a result, this query may be slow if there are a very many records in the changesets_issues table.

When the number of records in the changesets_issues table was about 1 million, it took 2 or 3 seconds to execute this query. Adding INDEX to issue_id improved the performance of this query to a few milliseconds.

Associated revisions

Revision 16007 - 2016-11-26 10:51 - Jean-Philippe Lang

Adds an index on issue_id to changesets_issues (#24433).
Index added in r16007.

Maybe we should also add an index on changeset_id to speed up the display of related issues on the changeset view. Do you have performance issues on the changeset view too?

There is no performance problem in changeset view.
Multiple column INDEX of changesets_id and issue_id seems to be used.