WIPO's Role in Green Technology

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The Centrality of Technology

"It is generally recognized that technological innovation, together with the transfer and widespread implementation of climate-friendly technologies, will be central to global efforts for handling the many challenges associated with climate change."

(Trade and Climate Change, WTO-UNEP Report
IPCC, Emissions Scenarios)

- What is the role of intellectual property in this scenario?

Contextualizing the Role of IP

- Mitigation technologies cover a vast range of economic sectors
  - Energy supply, transport, buildings, industry, agriculture, forestry, waste management
- Adaptation technologies likewise cover a vast range
  - Agriculture, coastal zone, infrastructure, water resources and hydrology, tourism, finance, biodiversity, health
- Many relevant technologies are not protected by IPRs
- Technology transfer goes beyond IP
- Nevertheless, patenting activity significant
  - 1998-2008: 215,000 patents worldwide for several low- and zero-emission energy technologies (EC Report by Copenhagen Economics and IPR Company 2009)

IP Incentive to Innovation

- Transition to a green economy presents also an opportunity for economic growth and job creation
- Patent role of incentivizing innovation
  - Incentive to R&D
  - Incentive to commercialization
- UPOV role in mitigation technologies in agriculture
- Are specific measures needed?

Specific Measures in the Patent System

- Efforts to promote green inventions
  - USPTO accelerated examination
  - UKIPO “Green Channel”
- Other policy measures?
  - Patenting behaviour is responsive to fee variations
  - Voluntary schemes for modulating the patent contract?
- Encouragements to commercialization of publicly funded R&D
  - Bahl-Dole Act

Transfer of Technology

- UNFCCC, Art. 4; Expert Group on Technology Transfer (EGTT)
- IP as framework for trading intellectual assets
- Role of the patent system as a global technology library
  - Tracing legal status (public domain)
  - Patent landscaping
  - Need for enhanced and specific search tools
  - PATENTSCOPE® service
  - Global Infrastructure
    - Digitization and search systems
    - Office modernization
  - Language
    - Machine Assisted Translation

Patented July 26, 1932 1,868,548

UNITED STATES PATENT OFFICE

JOSEPH C. TURNER, OF OKLAHOMA CITY, OKLAHOMA

ROLLER SKATE

Application filed March 6, 1931. Serial No. 520,605.

My invention relates to improvements in roller skates having ice skate action.

The principal objects of my invention are to provide a device of this character which is new, novel, practical, useful and of evident utility; which is strong, positive in action, durable and reliable; which consists of but few sturdy parts, is easily operated, cannot easily get out of order and is efficient for the purposes for which it is intended; to provide a roller skate having a U-shaped housing for a plurality of rollers arranged in tandem or single file, said housing being rocker or bow-shaped so that only two of said rollers may be in contact with the floor at one time; to provide a device in which the weight of the skater is supported on a single, narrow, curved surface formed of rollers in tandem analogous to the runner or blade of the rocker type of ice skate; a device in which only a short section of said curved surface is in contact with the floor at any one instant, thus permitting the skater to change his direction and make sharp turns by merely leaning the skate; to provide an adjustable brake for the front roller which is of especial use when skating backward as well as for bringing the skater to a stop when going forward; to provide a tip or point at the extreme front end of the skate to serve the double purpose of causing frictional action by contact with the floor when the skate is held in a certain position and also provide a means for turning or spinning on the skate without moving forward or backward; to provide a roller skate analogous to an ice skate which will permit the skater to take sharp corners at daring angles, which will glide smoothly and easily over the floor, which will permit racing speed, stunting and fancy skating not now possible with the present four wheel skate.

With these and other objects in view as will more fully appear, my invention consists in the construction, novel features, and combination of parts hereinafter more fully described, pointed out in the claims hereto appended, and illustrated in the accompanying one-sheet drawing, of which,

Figure 1 is a side elevational view showing a fragment of the shoe; Fig. 2 is a bottom view of the rollers and housing; Fig. 3 is a rear elevational view showing a fragment of the heel; Fig. 4 is a perspective view brake lever and brake roller housing; Fig. 5 is a section on the line 5—5 of Fig. 1 and Fig. 6 is a section on the line 6—6 of Fig. 1.

Like characters of reference designate like parts in all of the figures.

It is understood that various changes in the form, proportion, size, shape, weight and other details of construction, within the scope of my invention may be resorted to without departing from the spirit or broad principle of my invention and without sacrificing any of the advantages thereof, and it is further understood that the drawing is to be interpreted as being illustrative and not restrictive.

In my improved roller skate, it will be evident that the weight of the skater is supported by a short section of the rocker or curved surface in contact with the floor at any one instant, and that this arrangement allows the said skater to change his direction or make sharp turns, by merely leaning the skate. This is impossible with the present four wheel type of roller skate, as there is no so-called fifth wheel means of guiding the skate, so that any appreciable change in direction can be made only by picking the skate up from the floor and setting it down in the new direction.

My front roller, or wheel, is fitted with an adjustable brake. The most important use of this feature is in skating backwards. When going in this direction, especially when skating on one foot, the common tendency is for the skate to get ahead of the point of balance of the body. The common method of overcoming this tendency when skating on ice skates is to raise up on the point or toe of the skate so that the teeth or the notches, with which most ice skates are provided, will engage in the ice and retard the motion of the skater. This same effect can be had on my improved roller skate by raising up on the toe of the skate until the wheel or roller which is fitted with the brake comes in contact with the floor.

The tip, point or pivot which is provided at

July 26, 1932. J. C. TURNER 1,868,548

ROLLER SKATE

Filed March 6, 1931

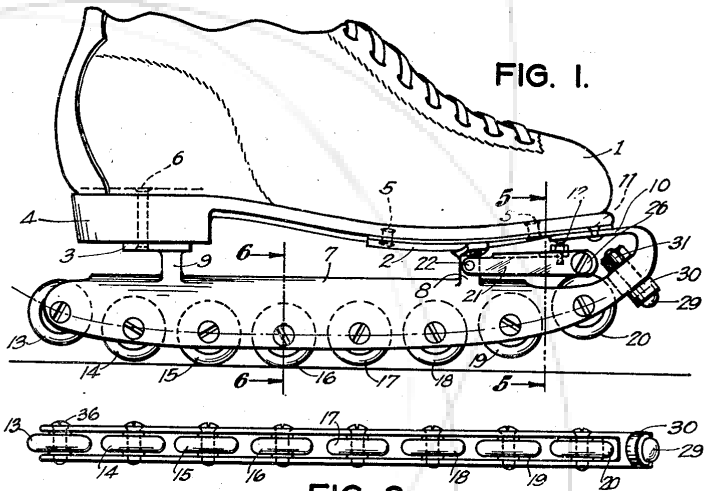

FIG. 1.

FIG. 2.

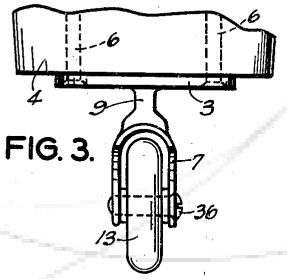

FIG. 3.

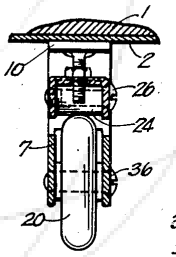

FIG. 5.

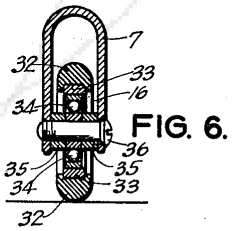

FIG. 6.

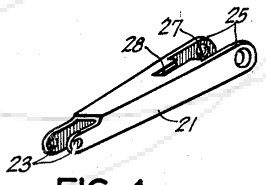

FIG. 4.

Joseph C. Turner INVENTOR

Some Major Technologies first disclosed in the Patent System

	Date of Published Patent	Date of Disclosure in other Literature
Hollerith (punched card)	1889	1914
Baird (television)	1923	1928
Whittle (jet engine)	1936	1946
Morrogh (ductile cast iron)	1939	1847
Ziegler, Natta (polymerization catalysts)	1953	1960

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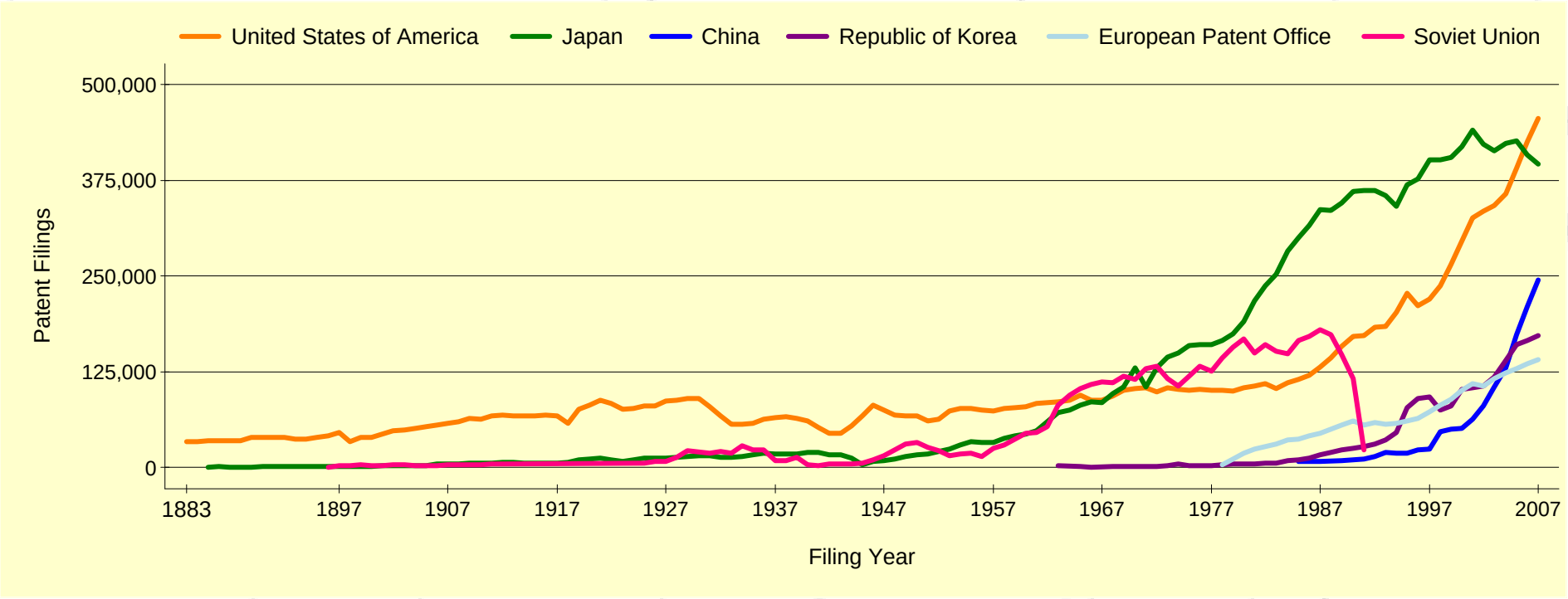
Trends in Patent Filings by Office



Between 1995 and 2007, filings in China grew by 23.9% a year (average annual growth rate)

The Changing Geography of Technology Production
% of International Applications under the PCT

	2004	2008
Japan	14.9	17.6
Republic of Korea	1.7	4.8
China	1.2	3.7
Total	17.8	26.1

Development

- Last 50 years GHG emissions per person in industrialized countries four ties greater than emissions per person in developing countries
- Emissions from OECD countries responsible for c.77% total GHG in the past
- Equation changing
  - 2/3 new emissions from non-OECD countries
  - 2005-2030 GHG emissions form non-OECD countries expected to increase by 2.5% -v- 0.5% OECD countries
- Capacity building
- Development Agenda