

PATENTING IN INDIA

Policy, Procedure and Public Funding

LAXMAN PRASAD



Policy Procedure
Assignment Licensing
Evaluation Patent
Technology Human Resources
Research Funding

ikr

PATENTING IN INDIA

Policy, Procedure and Public Funding

The book *Patenting in India: Policy, Procedure and Public Funding* deals exhaustively with the patents keeping in view the requirements of the researchers, technocrats, industrialists, policy makers and others who make frantic search on one or the other aspects of patents.

The book contains 12 chapters covering all aspects right from selecting a research problem from patent literature which will have industrial significance leading to a patent, up to valuation of patents. The book covers technology policies of the government, financial resources devoted to research and manpower engaged in research in the country. Apart from this, there are various agencies providing support to pre-patenting activities. The book covers all such agencies providing financial and technical support to researchers for filing patent. These activities have been described briefly and provided with appropriate links in order to facilitate the researchers to obtain and track the information on a real-time basis.

A chapter has been specifically devoted for valuation of the patents spelling out in a very lucid manner why and when to fix up the royalty as well as the lump-sum payments. It also covers a chapter on system for disputes resolution in the country and a chapter on international arrangements for patent filing. A separate chapter has been devoted in the book detailing with examples how a patent literature may form a resource material for researchers for identification of research problem for them to undertake or how the patent is helpful in avoiding duplication of the research work. An attempt has been made to cover important aspects of assigning and licensing of the patented invention in addition to the methodologies generally used for valuation of the patented invention.

This book is an important compilation meant for researchers as well as for industries.

Salient Features:

- It contains the necessary forms to facilitate the researchers to file patent application in India as well as overseas.
- It provides relevant clauses of the Patents Act on the spot of the subject being dealt with.
- It provides an Epilogue to help the researchers for further investigations and to suggest policy changes so that the conditions of the grant of the patent are followed routinely without fail.
- It provides at the end of all the chapters with major titles as annexed.
- It contains enough examples and case studies for supporting the text.



Dr. Laxman Prasad graduated in Electrical Engineering in 1970 and was awarded Doctor of Philosophy in Electronics Engineering by Banaras Hindu University in 1976. Dr. Prasad also holds the Degree of Bachelor of Law (LL.B.) of Delhi University with Patents and International Trade as optional. Currently, he is associated with the Raj Kumar Goel Group of Institutions as Group Director, R&D.

Dr. Prasad joined the All India Radio through Engineering Services (Electronics) in 1973 and later joined the Department of Science and Technology (DST) as Sr. Scientific Officer Grade-I and rose to the position of Adviser in 1997. During his tenure in DST, he headed the various divisions, namely, Technology Transfer, Drugs and Pharma, Water Technology, Solar Energy Research Initiatives and National Science and Technology Management Information Systems. He has the distinction of chairing many committees and representing DST in Governing Boards of various institutions. He has represented the Government in national and international meetings organized by UNESCO, OECD, SAARC, UNCTAD, and ESCAP in various parts of the globe. He was associated with Queen Elizabeth House, University of Oxford, U.K. as Fellow during 1993-94. On superannuation in 2010 from the Department of Science and Technology, Dr Prasad took over as the Director of RKGIT, Ghaziabad and served the Institute up to Jan, 2013. He is a Fellow of the Institution of Electronics and Telecom Engineers, India (IETE) and Fellow of the Academy of Social Sciences (India). He is recipient of FIE Foundation National Award (1996) for promotion of Science and Technology in the country and has the honor of being the Distinguished Alumnus of the Banaras Hindu University.



I.K. International Publishing House Pvt. Ltd.

S-25, Green Park Extension, Uphaar Cinema Market
New Delhi-110016, India • E-mail: info@ikinternational.com



9789384588939

www.ikbooks.com

CONTENTS

Foreword	vii
Acknowledgements	ix
1. Prologue	1
2. Policy, Infrastructure and Resources for Pre-patenting Activities	5
2.1 Policy Instruments	6
2.1.1 Science and Technology Policies	6
(1) Scientific Policy Resolution, 1958	6
(2) Technology Policy Statement, 1983	7
(3) Science and Technology Policy, 2003	8
(4) Science, Technology and Innovation Policy, 2013	11
2.2 Incentives and Support Mechanisms	12
2.2.1 Incentives for R&D	12
2.2.2 Support Mechanisms	15
2.3 Science and Technology Infrastructure	16
2.3.1 Committees on Science and Technology	16
2.3.2 S&T Infrastructure	17
(1) Central Ministries/Departments	18
(2) State Ministries/Departments	19
(3) Higher Education Sector	20
(4) Industrial Sector Including SIRO's	20
(5) R&D Institutions in India	21
2.4 National R&D Resources	22
2.4.1 Sectoral Composition of R&D	24
2.4.2 Expenditure by Central Government Agencies	24
2.4.3 Extramural R&D	26
2.4.4 R&D Manpower	26
2.5 Patent Facilitation System in India	28
2.5.1 National Research Development Corporation, New Delhi	28
2.5.2 Patent Facilitating Centre, TIFAC, New Delhi	30

2.5.3	Biotechnology Patent Facilitation Cell, DBT, GOI, New Delhi	30
2.5.4	Ministry of Micro, Small and Medium Enterprises, New Delhi	30
2.5.5	MSME Development Organization, New Delhi	31
2.5.6	Department of Electronics and Information Technology, New Delhi	31
2.6	Inventions Patented in India	32
2.7	Conclusion	35
3.	Patent Information – A Tool for Planning Future Research	39
3.1	Patent – An Embodiment of the State-of-the-Art Knowledge	40
3.1.1	Avoidance of Re-invention of Wheel	40
3.1.2	Patent – A Tool for Research	41
	(1) Illustrative Case – 1: Electric Lamp	41
	(2) Illustrative Case – 2: Light Emitting Diode Bulb	47
3.2	Searching of Patent Information	49
3.3	National and International Regulations for Disclosure of Information	50
3.3.1	Disclosure of Information in India	50
3.3.2	Disclosure of Information Under TRIPS	51
3.3.3	Disclosure of Information under PCT	52
3.4	Patent Information System in India	52
3.4.1	Patent Information System (PIS), Nagpur	53
	(1) Subscriber Advance Payment Scheme	53
	(2) Patent Search Services Scheme	53
	(3) Patent Copy Supply Search Scheme	54
3.4.2	Patent Facilitating Centre, TIFAC, New Delhi	54
3.4.3	Patent Office	54
	(1) Official Journal of the Patent Office	55
	(2) Gazette of India, Part III, Section 2	55
	(3) Indian Patent Information Retrieval System (IPIRS)	55
3.5	Searching of PCT Applications	57
4.	Evolution of Patent Law and Patenting System in India	59
4.1	Evolution of Patent Law	59

4.1.1 First Statute on Patent	60
(1) England	60
(2) United States of America	60
(3) France and Germany	61
(4) India	61
(a) Pre-Independence	61
(b) Post-Independence	62
4.2 Patenting System in India – Patent Administration	64
4.3 Territorial Jurisdictions of Patents Offices (Appropriate Office)	65
4.4 Organizational Structure	65
4.5 Applicant for Patent	66
4.6 Appropriate Office for Filing Patent Application	67
4.6.1 Deciding Factors for Jurisdiction (Appropriate Office) of Patent Office	67
4.7 Invention, as Defined in the Patents Act	68
4.7.1 Inventions not Patentable under Section 3 of the Patents Act, 1970	69
4.7.2 Inventions not Patentable under Section 4 of the Patents Act, 1970	75
4.7.3 Inventions where only Methods or Processes of Manufacture were Patentable	76
4.8 Priority Date and its Relevance	80
4.9 Date of Patent and its Relevance	82
4.10 Protection of Modifications/Improvements in Main Invention	83
4.10.1 Salient Features of Patent of Addition	86
4.10.2 Terms of Patent of Addition	86
(1) Tenure of Patent	86
(2) Renewal Fee	88
4.10.3 Consideration of Novelty and Inventive Step for Patent of Addition	88
4.11 Conclusion	89
5. Procedure for Patenting in India	95
5.1 Steps by an Applicant up to Pre-grant Stage	95
5.1.1 Step 1 – Submission of Application	95

(1) Choice of Application	95
(a) Ordinary Application	95
(b) Convention Application	96
(c) Divisional Application	96
(d) Application for Patent of Addition	96
(e) International Application under PCT	96
(f) National Phase Application under PCT	97
(2) Forms for Application	97
(3) Appropriate Office for Submission of Application	97
5.1.2 Step 2 – Request for Examination	98
5.1.3 Step 3 – Response to Patent Office	99
(1) On Examination of Patent Application	99
(2) On Pre-grant Opposition	99
5.2 Steps by the Patent Office for Granting a Patent	100
5.2.1 Step 1 – Review of Application	100
5.2.2 Step 2 – Publication of Application	100
5.2.3 Step 3 – Examination of Application	102
5.2.4 Step 4 – Action on Pre-grant Representation for Opposition	102
5.2.5 Step 5 – Grant of Patent	105
5.3 Steps by Patentee After the Grant of Patent	106
5.3.1 Step 1 – Renewal of Patent	106
5.3.2 Step 2 – Report by the Patentee to Patent Office	107
5.3.3 Step 3 – Response to Post-grant Opposition	108
5.4 Steps by the Patent Office – Post-grant	108
5.4.1 Step 1 – Entry in the Register of Patents	108
5.4.2 Step 2 – Publication of the Grant of Patent	108
5.4.3 Step 3 – Action on Post-grant Opposition	109
6. Patenting Beyond India	123
6.1 World Trade Organization	124
6.2 Paris Convention	124
6.3 Patent Cooperation Treaty (PCT)	124
6.4 Budapest Treaty on the International Recognition of the Deposit of Micro-organisms	125
6.5 Meaning of Terms used in International Arrangements	125

6.5.1 National Treatment	126
6.5.2 Right of Priority	126
6.5.3 International Application	127
6.5.4 Priority Date for Computing Time Limits under PCT	128
6.5.5 National Office	129
6.5.6 Designated Office	129
6.5.7 Elected Office	129
6.6 Options for Obtaining Patent beyond India	130
6.6.1 Option 1: Convention Application	130
6.6.2 Option 2: Patent Cooperation Treaty	131
(1) Advantages of PCT Application	132
(a) Time	132
(b) Probability of Obtaining Patent	132
(c) Cost of Patenting	132
(d) Informed Decision Making	133
6.6.3 Option 3: General Approach	133
6.7 Procedure for Filing PCT Application	133
6.7.1 At Receiving Office	133
6.7.2 At International Bureau	134
6.8 Content of International Application	134
6.8.1 Request	135
6.8.2 Description	135
6.8.3 Claims	136
6.8.4 Drawings	136
6.8.5 Abstract	137
6.9 Language of PCT Application	137
6.10 Process of Obtaining Patent under PCT	138
6.10.1 International Phase	139
(1) Option 1. International Bureau	139
(2) Option 2. Receiving Office	139
6.10.2 Role of Receiving Office	141
6.10.3 Role of International Searching Authority (ISA)	142
6.10.4 Publication of PCT Application	143
6.10.5 Supplementary International Search (SIS)	144
6.10.6 International Preliminary Examining Authority (IPEA)	144

6.10.7 ISA and IPEA Specified by Indian Patent Office	146
6.10.8 National Phase	146
6.11 Current Trends in PCT Applications	147
7. Rights and Obligations of Patentee	159
7.1 Rights of Patentee	159
7.1.1 Right to Exclude Others	159
7.1.2 Right to Surrender of Patent	162
7.1.3 Right to Sue	163
7.2 Obligations of the Patentee	163
7.2.1 To Submit Information to Controller	164
7.2.2 To Make an Agreement on Licensing/ Assignment	165
7.3 Penalties under the Patents Act	166
7.3.1 Contravening Secrecy Provisions	166
7.3.2 Contravening Section 39 of the Patents Act	167
7.3.3 Non-submission of Information	167
7.3.4 Falsification of Information	168
7.3.5 Unauthorized Claim for Patent Rights	169
7.3.6 Wrongful Use of Words, 'Patent Office'	170
7.4 Conclusion	170
8. Striking Balance between Monopoly and Public Welfare	173
8.1 Basic Principles of Granting Patents	173
8.2 Avoidance of Restrictive Practices in the Patents Act	174
8.3 Avoidance of Delay in the Working of Patent	176
8.4 Time Limit for Revocation of Patent by Controller for Non-working	179
8.5 Example of Compulsory Licence: M/S Bayer Vs NATCO	180
8.6 Use of Patented Invention by Central Government	181
8.7 Compulsory Licence for Export	182
8.8 Conclusion	183
9. Whether to Assign or Licence a Patent?	185
9.1 Need of Assignment or Licensing	185
9.2 Meaning of Assignment of Patent	186

9.3 Implications of Assignment of Patent	187
9.3.1 From Assignor's Point of View	187
9.3.2 From Assignee's Point of View	188
9.4 Licensing of Patent	189
9.4.1 Exclusive Licensing	189
9.4.2 Non-Exclusive Licensing	190
9.4.3 Sole Licensing	190
9.5 Implications of Licensing of Patent	190
9.5.1 Lump Sum Payment	191
(1) From Licensor's Point of View	191
(2) From Licensee's Point of View	191
9.5.2 Royalty	192
(1) From Licensor's Point of View	192
(2) From Licensee's Point of View	192
9.5.3 Lump Sum Payment and Royalty, Both	193
(1) From Licensor's Point of View	193
(2) From Licensee's Point of View	193
9.6 Format of Assignment Deed and Licensing Agreement	194
9.7 Validity of Assignment/Licence	194
9.8 Conclusion	196
10. How to Value a Patent?	199
10.1 Patent Adds Value to Invention	200
10.2 Valuation of Patent	200
10.2.1 Parameters Factored in Valuation	201
(1) Patent's Residual Life	201
(2) Patent's Potential for Commercialization	202
(3) Patent's Citations	202
(4) Patent's Claims	203
(5) Span of Protection of the Invention	204
(6) Competition for the Patent	204
10.3 Methods of Evaluation	204
10.3.1 Cost-Based Methodology	205
10.3.2 Market-Based Methodology	205
10.3.3 Income-Based Methodology	206
10.4 Conclusion	207

